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Wilson-Leonard An 11,000-year Archeological Record of Hunter-Gatherers in Central Texas Volume V: Special Studies

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Wilson-Leonard An 11,000-year Archeological Record of Hunter-Gatherers in Central Texas Volume V: Special Studies

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WILSON-LEONARD

**An 11,000-year Archeological Record
of Hunter-Gatherers in Central Texas**

Volume V: Special Studies

Assembled and Edited by Michael B. Collins

Studies in Archeology 31
Texas Archeological Research Laboratory
The University of Texas at Austin

Archeology Studies Program, Report 10
Texas Department of Transportation
Environmental Affairs Division

Texas Antiquities Committee Permit Number 300

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Volume V: Special Studies

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TABLE OF CONTENTS

Volume V

LIST OF FIGURES	ix
LIST OF TABLES	xi
CHAPTER 30: INTRODUCTION TO VOLUME V	
by <i>C. Britt Bousman</i>	1437
CHAPTER 31: HUMAN BIOLOGICAL REMAINS	
by <i>D. Gentry Steele</i>	1441
Introduction	1441
Archaic/Late Prehistoric Human Remains	1441
Burial 1 (Wilson Leonard I)	1441
Feature 90	1442
Miscellaneous Human Bone Fragments	1443
Summary of Archaic/Late Prehistoric Human Remains	1443
Paleoindian Remains (Wilson-Leonard II)	1444
Taphonomy	1444
Sex and Age	1446
Body Size	1446
Personal Features	1449
Medical Disorders	1450
Subsistence Habits	1452
Population Affinity	1453
Summary of Wilson-Leonard II Investigations	1458
CHAPTER 32: STABLE ISOTOPIC RESULTS FOR BURIALS 1 AND 2	
by <i>Diane Wilson</i>	1459
Stable Isotope Analysis	1459
Results of Wilson-Leonard I and II Analysis	1460
Methods	1460
Gelatin	1460
Apatite	1460
Summary	1460
Conclusions	1461
CHAPTER 33: VERTEBRATE FAUNAL REMAINS FROM THE 1/4-INCH AND 1/8-INCH SCREENS	
by <i>Barry W. Baker</i>	1463
Introduction	1463
The Wilson-Leonard Site and Its Fauna	1463
Uniqueness of the Wilson-Leonard Sample	1463
Environmental Setting	1465
Objectives	1465
Taphonomic Analysis	1465
Subsistence Analysis	1465
Paleoindian and Archaic Lifeways	1466
Previous Central Texas Faunal Studies	1466
Bison Studies	1467
Summary	1467
Methods	1468
Recovery Methods	1468
Cleaning and Conservation of Faunal Remains	1468
Sample Selection	1468

Faunal Identification	1468
Data Recording and Manipulation	1468
Quantification	1470
Taphonomic Analysis	1470
Taphonomy	1470
Fragmentation	1472
Weathering	1472
Chemical Dissolution	1474
Rootlet Etching	1474
Water Transport	1475
Rodent Gnawing	1475
Turbation	1475
Carnivore Activity	1475
Intrusive and Commensal Fauna	1475
Bone Density	1476
Animal Processing and Transport	1476
Bone Burning	1476
Conclusions	1478
Subsistence Analysis	1479
Taxa Recovered	1479
1/4-inch Sample	1479
1/8-inch Sample	1479
Comparison	1481
Hunting Patterns	1488
Taxa Representation	1488
Habitats Exploited	1488
Deer Age Structure	1488
Bison Age Structure	1489
Seasonality	1489
Animal Processing	1489
Butchering Patterns	1489
Marrow and Grease Extraction	1503
Conclusions	1505
Paleoindian and Archaic Subsistence	1505
Paleoindian Fauna at Wilson-Leonard	1506
Early Paleoindian Bone Bed	1506
Late Paleoindian (Golandrina, Barber, St. Mary's Hall Components)	1506
Late Paleoindian (Wilson Component)	1507
Archaic/Late Prehistoric Fauna at Wilson-Leonard	1507
Early Archaic	1507
Late Archaic	1507
Late Prehistoric	1508
Bison Remains	1508
Conclusions	1508
Summary and Conclusions	1508

CHAPTER 34: FINE SCREENING METHODS

<i>by Susan Decker</i>	1511
Introduction	1511
Advantages over Other Methods	1511
Equipment	1512
Procedures	1512
Screening	1512
Retrieval of Finds	1513
Fine Screening at the Wilson-Leonard Site	1514

CHAPTER 35: PLEISTOCENE TO HOLOCENE WILSON-LEONARD MICROVERTEBRATE FAUNA
AND ITS PALEOENVIRONMENTAL SIGNIFICANCE

<i>by Robin Balinsky</i>	1515
Introduction	1515
Materials and Methods	1516
Faunal Preservation	1518
Faunal Discussion	1518
Faunal Modification	1521
Paleoclimatic Interpretation	1531
Summary	1541

CHAPTER 36: EGGSHELL ANALYSIS

<i>by Susan Decker</i>	1543
Introduction	1543
Preservation	1543
Structure	1544
Previous Methods	1544
A New Method	1544
Measurement Technique	1546
Determination of Minimum Number of Species and Size Groups	1546
Results	1547
Unit III	1547
Unit II/IIIa	1549
Unit II	1550
Unit Id/II	1550
Unit I	1551
Discussion	1551

CHAPTER 37: THE MOLLUSCAN PALEOASSEMBLAGE

<i>by Leslie C. Shaw, Raymond W. Neck, James L. Theler, and Michael B. Collins</i>	1555
Introduction	
<i>by Michael B. Collins</i>	1555
Analysis of a Gastropoda Assemblage	
<i>by Raymond W. Neck and Leslie C. Shaw</i>	1556
Methods and Contexts	1556
Zoogeographical Setting	1557
Taxonomic Analysis of Subassemblages	1557
Annotated Species List	1558
Terrestrial Gastropods	1558
Freshwater Gastropods	1564
Discussion	1569
Environmental Indicator Species	1569
Habitat Variations through Time	1570
Gastropods from Burned Rock Midden 1	1570
Cultural Utilization	1571
Taphonomy of Shells	1571
Summary	1571
Paleoenvironmental Interpretation from Gastropods Recovered from Features	
<i>by James L. Theler</i>	1571
Methods	1572
Results	1572
Discussion and Conclusion	1574
An Analysis of the Freshwater Mollusk (Unionid) Paleoassemblage	
<i>by Leslie C. Shaw</i>	1574
Taxonomic Composition	1575
Reconstruction of Mussel Habitats	1593

Mussels as a Food Resource	1597
Summary	1598
Integrating Results of the Mollusk Studies by <i>Leslie C. Shaw</i>	1598
CHAPTER 38: Diatom Analysis	
by <i>Barbara Winsborough</i>	1601
Introduction	1601
Methods	1601
Results and Discussion	1601
Conclusions	1603
CHAPTER 39: Analysis of Ostracode Remains	
by <i>Marion J. Henry, Mervin Kontrovitz, and Jerry Marie Slack</i>	1605
Introduction	1605
Materials and Methods	1605
Results	1605
Conclusions	1608
CHAPTER 40: Carbonized Plant Remains	
by <i>J. Philip Dering</i>	1609
Introduction	1609
Methods	1609
Terminology	1609
Processing and Sorting	1609
Macroplant Samples	1609
Flotation Samples	1610
Identification Methods	1610
Seeds and Nutshell Fragments	1610
Wood	1610
Bulbs	1610
Results	1615
Flotation Samples	1615
Macroplant Samples	1615
Plant Remains from Features	1615
Burned Rock Midden 1	1616
Burned Rock Midden 2	1621
Postdepositional Destructive Processes	1621
Discussion	1626
Seeds and Nut Fragments	1626
Grass Seeds (<i>Panicum</i> , <i>Paspalum</i> , <i>Setaria</i>)	1626
Walnut (<i>Juglans</i> spp.)	1629
Hackberry (<i>Celtis</i> sp.)	1629
Carbonized Wood	1629
Arboreal Legume (cf. Honey Locust <i>Gleditsia tricanthos</i>)	1630
Gum Bumelia (<i>Bumelia lanuginosa</i>)	1630
Pecan (<i>Carya illinoensis</i>)	1630
Dogwood (<i>Cornus</i> sp.)	1630
Walnut (<i>Juglans</i> spp.)	1630
Juniper, Cedar (<i>Juniperus</i> spp.)	1630
Mulberry Family and Red Mulberry (Moraceae and <i>Morus rubra</i>)	1630
Live Oak and Oak (<i>Quercus</i> spp.)	1631
Rose Family (Rosaceae)	1631
Willow Family (Salicaceae)	1631
Elm Family (Ulmaceae)	1631
Interpretation of Woody Plant Remains	1632

Geophytes: The Significance of Wild Hyacinth (<i>Camassia scilloides</i>)	1632
Summary and Conclusions	1634
The Macrobotanical Record and Plant and Land Use throughout the Holocene	1635
CHAPTER 41: PHYTOLITH ANALYSIS	
<i>by Glen Fredlund</i>	1637
Literature Review	1637
Methods	1638
Sample Collection	1638
Phytolith Extraction	1639
Phytolith Identification and Counting	1639
Results	1640
Modern Assemblages	1640
Analysis of the Stratigraphic Column	1641
Phytolith Recovery and Preservation	1642
The Grassland-Woodland Ratio	1643
Distinctive Nongraminoid Phytolith Forms	1644
Grass Short-cell Phytolith Assemblages	1647
Other Graminoid Morphotypes	1647
Aquatic Silicate Microfossils	1647
Analysis of Archeological Feature Samples	1647
Conclusions	1649
CHAPTER 42: STABLE CARBON ISOTOPE ANALYSIS OF SOIL ORGANIC MATTER	
<i>by Glen Fredlund and Larry L. Tieszen</i>	1653
Objectives	1653
Methods	1653
Results and Interpretation	1653
Conclusions	1655
REFERENCES CITED IN VOLUME V	1657
APPENDIX 8: FAUNAL REMAINS RECOVERED FROM SELECT FEATURES	1679
APPENDIX 9: FAUNAL TAXA DESCRIPTIONS	1685
APPENDIX 10: PROVENIENCE OF FAUNAL REMAINS	1697

LIST OF FIGURES **Volume V**

30-1.	Plan map of TxDOT and TARL excavations	1439
31-1.	Illustration of Wilson-Leonard II in situ	1445
31-2.	Left and right lateral and frontal views of Wilson-Leonard II cranium	1446
31-3.	Occlusal views of the maxillary and mandibular teeth of Wilson-Leonard II	1447
31-4.	Sequence of photographs illustrating the reconstruction of Wilson-Leonard II	1451
31-5.	Lateral view of right mandible of Wilson-Leonard II	1452
31-6.	Bivariate plots of mean cranial lengths and widths of Paleoindian males and females compared with prehistoric and modern populations	1454
31-7.	Bivariate plots of mean facial lengths and widths of Paleoindian males and females compared with prehistoric and modern populations	1455
31-8.	Plot of principal component analysis of size-corrected data for Paleoindian males and females compared with prehistoric and modern populations	1457
32-1.	Stable isotope data from Wilson-Leonard I and II compared with values from other Central Texas hunter-gatherers	1461
34-1.	Nesting screens and water tanks used for fine screening of soil samples	1512
34-2.	Agitation of nesting screens in water tank during fine screening	1513
34-3.	Fine-screened samples drying in the sun in separated top and bottom screens	1514
35-1.	Profile of Square 20 stratigraphic column	1517
35-2.	Percentages of identified versus unidentified bone in Square 20 by excavation level	1519
35-3.	Percentages of rodent from the total amount of identified bone in Square 20	1528
35-4.	Percentages of burning for identified and unidentified bone from Square 20	1529
35-5.	Percentages of fish and turtle from the total amount of identified bone in Square 20	1530
35-6.	Percentages of large mammals from the total amount of identified bone in Square 20	1532
35-7.	Range map of <i>Synaptomys cooperi</i>	1533
35-8.	Range map of <i>Cratogeomys castanops</i>	1533
35-9.	Range map of <i>Oryzomys palustris</i>	1534
35-10.	Range map of <i>Ondatra zibethicus</i>	1535
35-11.	Range map of <i>Microtus pinetorum/ochrogaster</i>	1536
35-12.	Distribution of specimens of <i>Microtus</i> sp.	1537
35-13.	Distribution of specimens of <i>Geomys</i> sp.	1538
35-14.	Range map depicting the distributions of three species of <i>Geomys</i> in Central Texas	1539
35-15.	Upper left M2 of <i>Thomomys</i> sp. from Level 24	1539
35-16.	P4 fragment of <i>Thomomys</i> sp. from Level 25	1540
35-17.	Range map of <i>Thomomys bottae</i>	1541
37-1.	Comparison of water-body type rankings for Units II, IIIa, and IIIc	1596
37-2.	Comparison of water depth rankings for Units II, IIIa, and IIIc	1597
37-3.	Comparison of current velocity for Units II, IIIa, and IIIc	1597
37-4.	Comparison of substrate composition rankings for Units II, IIIa, and IIIc	1597
39-1.	Scanning electron photomicrographs of ostracodes from the Wilson-Leonard site	1606
39-2.	Estimate of water temperatures based on ostracode remains from early stratigraphic units	1608
40-1.	SEM photographs of archeological and comparative bulbs	1633
41-1.	Percent weight of extracted phytoliths by depth	1643
41-2.	Woodland/grassland ratio by depth	1643
41-3.	Diagnostic phytolith forms	1646
41-4.	Grass short-cell phytolith percentages	1649
42-1.	Stable carbon isotope analysis results by depth	1655

LIST OF TABLES **Volume V**

31-1.	Affirmed and probable North America Paleoindians	1442
31-2.	Measurements of Wilson-Leonard I	1442
31-3.	Feature 90 cranial measurements	1443
31-4.	Provenience and cultural affiliation of miscellaneous human bone fragments	1444
31-5.	List of Wilson-Leonard II skeletal elements recovered	1445
31-6.	Cranial measurements of Wilson-Leonard II and compared Paleoindians	1447
31-7.	Postcranial measurements of Wilson-Leonard II and Gordon Creek females	1448
31-8.	Crown and neck measurements of maxillary teeth of Paleoindian females	1449
31-9.	Crown and neck measurements of mandibular teeth of Paleoindian females	1450
31-10.	Comparative human stature estimates of prehistoric samples	1451
31-11.	Medical disorders observed in Paleoindians	1452
32-1.	Delta ¹³ C apatite and gelatin values for Wilson-Leonard I and II	1461
33-1.	Selected Central Texas archeological sites or site complexes with vertebrate faunal remains	1464
33-2.	Faunal recovery from 1/4-inch screens by cultural period and stratigraphic unit	1469
33-3.	Faunal recovery from 1/8-inch screens by cultural period and stratigraphic unit	1471
33-4.	Breakage patterns by cultural period	1473
33-5.	Artiodactyl element frequencies in the 1/4-inch sample	1476
33-6.	Burned bone by cultural period	1478
33-7.	Common name and NISP counts of 1/4-inch taxa	1480
33-8.	Common name and NISP counts of 1/8-inch taxa	1482
33-9.	Taxa by cultural period and major vertebrate group from the 1/4-inch recovery	1484
33-10.	Taxa by cultural period and major vertebrate group from the 1/8-inch recovery	1486
33-11.	Habitats of recovered fauna	1488
33-12.	Faunal recovery by archeological feature, 1/4-inch screens	1490
33-13.	Faunal recovery by archeological feature, 1/8-inch screens	1497
33-14.	Bison and Bison-sized elements from 1/8-inch and 1/4-inch recovery	1502
33-15.	Spirally fractured artiodactyl elements	1504
35-1.	Faunal taxa and common names	1520
35-2.	Distribution of nonmammal taxa in Square 20, by level	1522
35-3.	Distribution of mammalian taxa in Square 20, by level	1524
35-4.	Distribution of sized mammal bones	1526
36-1.	Comparative modern species list by eggshell thickness	1548
36-2.	Counts of feature eggshells by thickness	1549
36-3.	Unit III feature eggshell thicknesses	1549
36-4.	Unit II/IIIa feature eggshell thicknesses	1550
36-5.	Unit II feature eggshell thicknesses	1551
36-6.	Unit Id/II feature eggshell thicknesses	1551
36-7.	Unit I feature eggshell thicknesses	1552
37-1.	Habitat preferences of the terrestrial gastropods from TxDOT Unit E28/S78	1558
37-2.	Terrestrial gastropod taxa frequencies by level, E28/S78	1559
37-3.	Terrestrial gastropod taxa frequencies by level, TxDOT Square E20/S78	1561
37-4.	Terrestrial gastropod taxa frequencies by level, TxDOT Square E22/S88	1561
37-5.	Terrestrial gastropod taxa frequencies by level, TxDOT Square E22/S78	1562
37-6.	Freshwater gastropod taxa frequencies by square and level	1563
37-7.	Gastropod taxa frequencies by level, TARL Square 12	1565
37-8.	Gastropod taxa frequencies by level, TARL Square 20	1567
37-9.	Gastropod taxa frequencies for selected features	1568
37-10.	Gastropod taxa frequencies in Burned Rock Midden 1	1568
37-11.	Gastropods from selected features, MNI	1573
37-12.	Scientific and common names for the freshwater mussel shells, family Unionidae	1575
37-13.	Identification and provenience of freshwater mollusk remains by excavation and stratigraphic unit	1576

37-14.	Distribution of identified mollusks by stratigraphic unit	1592
37-15.	Distribution of thin-, medium-, and thick-walled shells by stratigraphic unit	1594
37-16.	Rankings of environmental characteristics for the Wilson-Leonard taxa	1595
38-1.	Samples analyzed for diatom content	1602
38-2.	Diatom abundance in sediments from the Wilson-Leonard site	1603
39-1.	Provenience of ostracode samples	1607
39-2.	Ostracode valve count by species	1607
39-3.	Approximate maximum water depth and temperature for ostracodes by sample	1608
40-1.	Provenience of flotation samples	1611
40-2.	Key to the potentially economic bulbs of the study area	1615
40-3.	Plant taxa identified in the macroplant samples	1616
40-4.	Carbonized remains from Wilson-Leonard flotation samples	1616
40-5.	Identification of macroplant samples from the TxDOT excavations	1617
40-6.	Identification of macroplant samples from the TARL excavations	1622
40-7.	Plant remains from feature contexts	1627
40-8.	Features identified as carbonized tree trunks or roots	1629
40-9.	Provenience of <i>Camassia scilloides</i> by feature	1634
41-1.	Modern sample sites in Central Texas	1639
41-2.	Modern sample data: percent weight recovered and woodland/grassland ratio	1640
41-3.	Modern plant sample data: percentage of grass short cells by phytolith morphotype	1641
41-4.	Phytolith recovery, preservation and woodland-grassland ratios for the excavation Square 12 profile and exploratory deeper samples	1642
41-5.	Occurrence of distinctive arboreal and other diagnostic morphotypes	1645
41-6.	Grass short-cell phytolith percentages	1648
41-7.	Other graminoid phytolith forms and aquatic-type microfossils	1650
41-8.	Phytolith recovery and preservation in feature samples	1651
41-9.	Grass short-cell percentages in the feature samples	1651
42-1.	Isotopic data for the Wilson-Leonard stratigraphic column	1654
A8-1.	Number and percentage of faunal remains by class for select features	1681
A10-1.	Provenience of faunal remains recovered from 1/4-inch screens, TxDOT excavations	1699
A10-2.	Provenience of faunal remains recovered from 1/8-inch screens, TARL excavations	1777

CHAPTER 30

INTRODUCTION TO VOLUME V

by C. Britt Bousman

One of the primary research objectives of the Wilson-Leonard project was to investigate the interactions between hunter-gatherers and their natural environment. This type of analysis is also known as hunter-gatherer paleoecology. Recent research suggests that past environments in Central Texas fluctuated substantially during the 11,000 years since Wilson-Leonard was first occupied (Bousman 1994, in review; Collins 1995; Collins and Bousman 1993; Nordt et al. 1994; Toomey 1993). An archeological site with an extensive sequence of human occupations, such as Wilson-Leonard, provides one of the best opportunities for investigating hunter-gatherer paleoecology over this time span if ecologically sensitive data are present. Sites with such a long sequence of human occupations are rare; Lubbock Lake (Johnson 1987) and Arenosa Shelter (Collins 1996; Dibble 1967) are the only other sites in Texas with as comprehensive an archeological record.

The purpose of the investigations reported in this volume is to compare the paleoenvironmental data to the evidence of past human behavior and identify correlations between the two records. A single site, rather than multiple sites, is preferred because a single site remains roughly stationary through time in relation to many off-site resources and the general landscape. From this single-site perspective, major patterns of resource exploitation can be seen fundamentally as a response to altering biotic resources that change their spatial distribution through time, or perhaps as independent shifts in human exploitation strategies. When multiple sites are combined in a single synthetic analysis, it is very difficult to unravel the two above effects from differential responses to the distribution of resources in multiple spatial settings. Furthermore, relative chronology is more secure for events in the sequence at a single site than that reconstructed through cross-dating of multiple sites.

Eight topics are identified in Chapter 5 (Research Objectives) to address the larger subject of hunter-gatherer paleoecology. Among these eight topics are the specific

issues of paleoenvironmental reconstruction, resource exploitation, and bioarcheology. The 12 contributions in this volume present detailed data on these three specific topics. These contributions present evidence collected during both phases of excavation (TxDOT and TARL), and the sources of evidence are highly varied. Also, even though Wilson-Leonard does contain a remarkably complete archeological record in good geological context, as discussions on site formation suggest, the site does not represent a unique setting in terms of organic preservation. In fact, the preservation of organic remains is probably no better than average for the region, and the preservation of organic materials cannot be compared to that seen in dry shelters and caves in the Lower Pecos region or in the bogs of east-central Texas (Chelf 1946). Nevertheless, multiple sources of evidence were preserved and collected, and they all contribute to a markedly better understanding of past environments, human adaptations, and exploitation of past environments by the prehistoric inhabitants of the Wilson-Leonard site and presumably Central Texas.

Two papers, by Steele and Wilson, provide an archive of the bioarchaeology of the human remains at the Wilson-Leonard site. Steele (Chapter 31) undertakes a description and analysis of the human physical remains. These are limited primarily to two burials excavated by TxDOT, and he focuses most of his analytical effort on Burial 2. Burial 2 is one of the oldest interred humans in North America excavated by scientific methods. Any human remains from this period (ca. 10,000 B.P.) are extremely rare and highly significant. The physical record imprinted on these remains and interpreted by Steele provides a direct and detailed glimpse of one person who occupied the site in this very early period. Due to the fragmentary and poorly preserved nature of the remains, unfortunately this picture is incomplete. Wilson's stable isotope analysis of the human remains (Chapter 32) provides a reflection of the dietary habits of the two human burials. Regrettably, Burial 2 suffers from

postdepositional chemical diagenesis, and not all stable isotope analyses were reliable or even possible. Nevertheless, the stable isotope analysis does show a measurable shift in diets between the two burials.

Selected columns excavated for enhanced data recovery were employed by both TxDOT and TARL investigators. The earlier excavators fine-screened Square E28/S78 (the "fine-screen unit"); the later excavators dug Squares 12 and 20 from surface to bedrock and extracted matrix samples for multiple kinds of analyses (Figure 30-1). Much of the analytical effort reflected in the chapters of this volume derive from these three columns (see Chapter 3).

Resource exploitation was documented by analyses of mammalian fauna, microfauna, molluscan fauna, and macrobotanical remains. Baker (Chapter 33) documents exploitation shifts evidenced in the faunal remains recovered by 1/4-inch screens of the TxDOT excavations and the 1/8-inch screens of the TARL excavations. Most of these remains are mammalian species. In addition, Baker provides a detailed assessment of archeological faunal taphonomy, and this represents a significant advancement in our understanding of the formation processes that help mold and bias archeological faunal assemblages in Central Texas. Balinsky (Chapter 35) reports the results of the TARL fine-screening efforts, and Decker (Chapter 34) describes the unique methods used to secure the TARL fine-screen sample. The resulting microfaunal findings expand those published earlier (Winkler 1990). Balinsky's analysis provides new data on the microfauna, and it appears that a significant proportion of these remains were introduced into the site as food items by the prehistoric human inhabitants. An additional contribution by Decker (Chapter 36) provides an analysis of bird eggshell remains. Bird eggshell is rarely recovered in archeological excavations because of the coarse screens in common use, but as Decker demonstrates, throughout the Holocene bird eggs were a food resource and numerous species were exploited. Shaw's analysis (Chapter 37) of the freshwater unionid assemblages demonstrates the prehistoric exploitation of these as food resources. However, most of the molluscan remains are better indicators of past environments. Dering's study (Chapter 40) of the botanical materials recovered from the site provides the first indication that wild hyacinth (*Camassia scilloides*) was a food item utilized by Early and Late Archaic hunter-gatherers, and other possible plant foods include walnuts (*Juglans* spp.), at least three species of grass seed (*Panicum*, *Paspalum*, and *Setaria*), and hackberry fruit (*Celtis* sp.). Dering also discusses the fluctuating use of different fire woods.

Materials that provide evidence of past environments include the mollusks, vertebrate fauna, diatoms, ostracods, phytoliths, and sediment stable isotopes. Pollen samples were also taken by Vaughn Bryant during the TxDOT excavations, but these efforts failed due to poor preservation

(Holloway and Bryant n.d.). Paleoenvironmental data must always be interpreted with caution, but a number of independent lines of evidence have been analyzed from Wilson-Leonard, and these can be compared to one another and other nearby sources (see Bousman in review; Nordt et al. 1994; Toomey 1993).

Shaw, Neck, and Theler (Chapter 37) analyzed snails and unionids recovered from TxDOT and TARL sediment columns and features. These data are used to suggest that significant environmental shifts are indicated by changes in the frequencies of snails and mussels. The gastropods suggest that more open environments were present in the middle Holocene. Similar to other sources of evidence, mollusks are rare in Unit I and are probably lost through decomposition. Winsborough's (Chapter 38) discovery that diatoms are only present when encrusted by calcium carbonate nodules even though the specific depositional environment should have diatoms, clearly demonstrates that diatoms have been destroyed by geochemical processes. This is supported by the vertical distribution of phytoliths and mollusks as well as the absence of pollen. Henry, Kontrovitz, and Slack's study (Chapter 39) of ostracodes from Unit I sediments provides rare evidence of paleoenvironments at that period of site formation. The ostracode evidence suggests that conditions were more moist during the accumulation of Unit I sediments than during most of the Holocene. Fredlund's analysis (Chapter 41) of phytoliths provides a continuous record of biotic changes over the last 10,000 years. He documents changes in phytolith mass as well as woodland/grassland ratios and grass short-cell assemblages that reflect paleoenvironmental changes in the phytolith record. Fredlund uses these data to suggest that the biotic composition shifted from woodlands to grasslands and then back to woodlands. The phytoliths and gastropods provide a consistent record of environmental change. Fredlund and Tieszen (Chapter 42) provide an analysis of stable isotopes from a stratified column of sediment samples. These data do not show the dramatic change in past environments indicated by the phytoliths and gastropods, or data from other nearby studies (Bousman in review; Nordt et al. 1994). Fredlund and Tieszen suggest that the organic matter in the sediments is a reflection of highly local biotic communities in the valley setting with similar isotopic signals. Individual sources of paleoenvironmental evidence can be interpreted in a number of ways, but when combined the independent lines of evidence appear to suggest similar trends in past environmental changes even though taphonomic factors such as preservation and local versus regional catchments clearly skew taxa representation in samples.

There is no effort to integrate these separate paleoecological investigations in this volume. However, these diverse findings are addressed in the interpretive chapters in Volume I.

FIGURE 30-1. Plan map of TxDOT and TARL excavations.

CHAPTER 31

HUMAN BIOLOGICAL REMAINS

by D. Gentry Steele

INTRODUCTION

In many respects the Wilson-Leonard site has gained its fame and much of its publicity because of the recovery of the ancient human remains identified as Wilson-Leonard II (or Burial 2) from one of the deeper cultural deposits at the site. These remains of a young adult female believed to have died around 10,000 B.P. are worthy of this attention for they represent one of the very few individuals of that antiquity recovered from the Americas. For example, within North America only two adult females represented by very fragmentary and incomplete remains from White Water Draw, Arizona and one adult female from Gordon Creek, Colorado are of equivalent confirmed antiquity. In addition to these individuals, incomplete and fragmentary remains of an adult female from Midland, Texas, an adolescent female from Pelican Rapids, Michigan, and an adolescent female from La Brea, California have been considered of similar or slightly more recent antiquity. If the remains of males are considered, as well as skeletal remains from sites whose antiquity is not as firmly established or sites where only traces of human remains have been found, the database for interpreting the biological history of the earliest Americans increases slightly but is still truly minuscule (Table 31-1).

While Wilson-Leonard II represents the most significant human remains recovered from the site, at least one other individual, and probably more, have been recovered from Archaic/Late Prehistoric levels at the site as well. Burial 1, represented by very fragmentary and incomplete postcranial remains, was recovered from Late Archaic deposits. In addition to Burial 1, a portion of a braincase was recovered from Feature 90 and six isolated fragments of human bone and one human tooth fragment were recovered from the site. The isolated tooth fragment was found in the TARL excavations and all other human remains were recovered in the TxDOT excavations. All human remains recovered from 41WM235 are reported in this chapter, but given the signifi-

cance of the Wilson-Leonard II female, the focus is upon the biological interpretation of the remains of this individual. This follows two earlier efforts at other laboratories to stabilize and conserve the remains constituting Burial 2.

ARCHAIC/LATE PREHISTORIC HUMAN REMAINS Burial 1 (Wilson-Leonard I)

Burial 1 was found in the lower portion of Burned Rock Midden 1 (E20/S92, Level 6) in stratigraphic Unit IIIc. It is probably Late Archaic in age and includes the highly fragmented and incomplete postcranial remains of one individual (see Chapter 26). Identifiable elements recovered were two fragments, side indeterminate, of an ilium; portions of the shafts of a right femur and left tibia; and small fragments of the shaft of a fibula, side indeterminate. In addition to these larger skeletal pieces, approximately 130 additional postcranial fragments were recovered, but their small size, lack of diagnostic features, and eroded surfaces made it impossible to reconstruct these into larger, more analyzable fragments.

Wilson-Leonard I was buried in a flexed position, apparently on the individual's back with the lower legs flexed under the upper legs. The skeleton suffered extensive post-mortem destruction while the burial was in situ. Compaction of the overlying soils, probably associated with their intermittent expansion and contraction through time, caused multiple right angle and spiral breaks of the preserved elements. The cortical surfaces of the bones were extensively eroded with marked evidence of root etching and more generalized leaching of the bone minerals. Smaller and thinner bones, such as those of the scapulae and hand and foot bones appear to have been completely reduced, with only the thickest postcranial elements left to represent the individual. It is also possible that burrowing animals and other unspecified forms of bioturbation could have removed some of the smaller elements. No evidence of rodent gnawing, however, was found on the bones of Wilson-Leonard I to

TABLE 31-1
Affirmed and Probable North America Paleoindians

Locality	Remains	Age at Death	Antiquity (years B.P.)	Reference
Female				
Wilson-Leonard II, TX	Skeleton	20-25	9800-10,000	
Midland, TX	Skeleton	adult	—	
Gordon Creek, CO	Skeleton	25-40	9700	Breternitz et al. 1971
Whitewater Draw I, AZ	Skeleton	30-50	8390-10,420	Waters 1986
Whitewater Draw II, AZ	Skeleton	35-50	8390-10,420	
Pelican Rapids, MI	Skeleton	15-20	7840±70	Jenks 1936
La Brea, CA	Skeleton		9000±80	Berger 1975; Kroeber 1962
Male				
Horn Shelter, TX	Skeleton	35-45	9000-10,000	Young 1986, 1988
Horn Shelter adolescent	Skeleton		9000-10,000	
Browns Valley, MI	Skeleton	20-30	8700±110	Jenks 1937
Sauk Valley, MI	Skeleton	25-40	4360±60*	Jenks and Wilford 1938
Marmes, WA	Cranial fragments	—	10,000-11,000	Fryxell et al. 1968
Sex Indeterminate				
Arlington Springs, CA	2 femora	—	10,000	Orr 1962
Mostin, CA	Fragments	—	10,000-11,000	Kaufman 1980; Taylor et al. 1985
Fishbone Cave, NE	Postcranial fragments	—	10,900-11,200	Orr 1956, 1974
Anzick (Wilsal), MT	Cranial fragments	—	10,600	Taylor 1969; Taylor et al. 1985
Shifting Sands, TX	Tooth fragments	15-20	8500-10,000	Owsley, personal communication
Warm Mineral Springs, FL	Postcranial fragments	—	10,620±190	Clausen et al. 1975

* The estimated antiquity of Sauk Valley at time of research was 8000-10,000 B.P. It has been recently redated to 4360±60 B.P. (Tom Stafford, personal communication).

suggest that burrowing rodents had disturbed the skeleton. In addition to reduction of the bone in situ, it is also possible that the burial was disturbed through human activities for the torso is represented by only two small fragments of the ilium, and the skull is completely missing. Since Burial 1 was located within Burned Rock Midden 1, it may have been disturbed by either modern relict collectors or by the prehistoric inhabitants who utilized the midden.

Very little information could be ascertained about the size, physical features, or biological affinity of Wilson-Leonard I. Only three measurements could be taken to assess the dimensions of the femur shaft (Table 31-2), and none of these measures provided any diagnostic information. Subjectively, the shaft of the femur appears to be short although relatively robust, the dimensions falling within the range of variation for either a male or female. Also, subjectively, size of the diaphysis fragment and the thickness of the cortex suggests the individual was an adolescent or adult.

TABLE 31-2
Measurements of Wilson-Leonard I

Element	Measurement (cm)
Femur anterior-posterior diameter, midshaft	3.0
Femur, transverse diameter, midshaft	2.5
Femur, circumference, midshaft	8.5

Feature 90

Feature 90 was found about 1 m northeast of Burial 1 and about 50 cm below it (E22/S90, Level 12). It was located in stratigraphic Unit Y, about 20-30 cm below the base of Burned Rock Midden 1. Feature 90 was judged in the field to be part of the displaced skull missing from Wilson-Leonard I. Its stratigraphic position suggests it may represent an earlier burial (Early Archaic?) although a possible Burial 1 association cannot be definitively ruled out. Recovered from

the feature were the fragments of a human calotte comprised of portions of the frontal, parietal, and the squamous portion of the occipital, and approximately 60 cranial fragments too small and eroded to be reconstructed into larger, identifiable fragments. No other human skeletal remains were recovered from the feature, nor was there evidence of a burial pit. Like Wilson-Leonard I, the cranial fragments of Feature 90 are incomplete, fragmented, and eroded.

Based upon the gracile nature of the occipital protuberance and supraorbital brow ridges of the calotte, the individual appears to have been a female. The early stages of fusion of the coronal, sagittal, and lambdoid sutures suggest the individual was a young adult. Nothing could be determined about the size or biological affinity of the individual, and only two nondiagnostic measurements could be determined from the frontal bone (Table 31-3). No pathological disorders were observed on the recovered cranial elements.

TABLE 31-3
Feature 90 Cranial Measurements

Element	Measurement (cm)
Frontal chord length	11.1
Frontal arch length	12.0

Miscellaneous Human Bone Fragments

In addition to Burial 1 and Feature 90, six bone and one tooth fragment were recovered (Table 31-4). When the bone fragments were recovered during the initial excavations of the Wilson-Leonard site, they were not recognized as human and were included with the faunal remains. They were first identified as human during the laboratory phase of the faunal analysis by Barry W. Baker and their identification as human was confirmed by this author.

All six bone fragments have highly degraded cortical surfaces with extensive evidence of chemical erosion and some weather checking. The bones were broken prior to recovery, and some of the broken edges exhibit rounding and polishing suggestive of abrasion by sediment-loaded waters or by minor movement within the soil after breakage. One ulna fragment (Lot 20I) exhibits extensive rodent gnawing as well as chemical erosion of the cortex. The one recovered tooth shows a similar degree of degradation by mechanical breakage and chemical erosion of the preserved portion of the root mass and the recovered portion of the enamel crown.

It appears that these fragments have been subjected to multiple destructive processes, probably have been moved from their initial burial location, and could represent fragments from Burial 1 or another individual or individuals not preserved in total or not exposed during the two periods of excavation. Two femur fragments (Lot 36B)

recovered 25-30 m northeast of Burial 1 and Feature 90 in Unit IIIc probably represent either adventitious elements or dislocated bones from a different burial. The isolated tooth fragment and one radius fragment (Lot 23I) found 10-12 m northeast of Burial 1 in Unit IIIB may represent a separate individual (or individuals) as well. Two left ulna fragments (Lot 20I) and a radius fragment (Lot 8I) were recovered in closer proximity to Burial 1 and Feature 90 and could more plausibly be remains from these individuals. These fragments were found 1 to 5 m north of Burial 1 at the very base of Unit IIIc (IIIB/c and Y/IIIc).

Nothing informative could be gleaned from the five bone and one tooth fragment concerning the biological nature of the individual or individuals represented. The upper left molar fragment includes portions of the two mesial cusps which are worn flat but have not been worn to the degree that dentin is exposed. While this suggests the individual is a young adult, or possibly an adolescent, the age cannot be more precisely determined since it cannot be determined whether the fragment represents a first, second, or third molar. No other biological information could be determined from this bit of tooth.

Summary of Archaic/Late Prehistoric Human Remains

In summary, the remains of at least one individual (if all remains are from Burial 1), and possibly as many as seven individuals (if Burial 1, Feature 90, and Lots 65I, 36B, 23I, 8I, and 20I each represent a separate individual) have been recovered from Archaic and possibly Late Prehistoric deposits at 41WN235. A more conservative estimate of the minimum number of individuals represented, based on the assessment of the biological remains and where they were recovered from the site, however, is three to five individuals. Burial 1, an adolescent or adult of undetermined sex, is the only individual recovered from a recognized burial context from this time period. Based on the stratigraphic context of Feature 90, this calotte most plausibly represents a second individual, an adolescent or young adult female. Bone fragments of a radius and ulna (Lots 8I and 20I) because of their proximity to Burial 1 and Feature 90 could be associated with either of these individuals although there is no biological evidence to suggest that they are. A third individual represented by the remains of the two femur shaft fragments (Lot 36B) is probably represented in the assemblage, considering the more than 25-m distance these fragments were from Burial 1 and Feature 90. The isolated tooth fragment (Lot 65I) and the two radius fragments (Lots 8I and 23I) may or may not represent a fourth and possibly a fifth individual. The only information that can be determined about these last one to three individuals is that the femur fragments appear to be from an adolescent or adult of undetermined sex, and the molar fragment appears to be from an adolescent or young adult of undetermined sex.

TABLE 31-4
Provenience and Cultural Affiliation of Miscellaneous Human Bone Fragments

Biological Material	Unit	Lot Number	Provenience	Cultural Affiliation
Left upper molar (N=1)	IIIb	65I	TARL Square 16, Level 12	Archaic (Early/Middle?)
Left femur (N=2)	IIIc	36B	E40/S70, Level 2	Late Archaic/Late Prehistoric?
Radius, side (indeterminate) (N=1)	IIIb	23I	E22/S80, Level 9	Archaic (Early/Middle?)
Radius, side (indeterminate) (N=1)	Y/IIIc	8I	E20/S90, Level 9	Archaic (Middle/Late?)
Ulna, left (N=2)	IIIb/c	20I	E22/S86, Level 9	Archaic (Middle/Late?)

PALEOINDIAN REMAINS (WILSON-LEONARD II)

Wilson-Leonard II, also identified as Burial 2, was excavated from a burial pit that originated in the lower portion of the Leanne soil and extended into the underlying sediments (E20/S74 and E20/S72, Levels 31A-34B). Based on the chronostratigraphic position of the burial pit, the individual appears date between 10,000 and 10,500 B.P.

Wilson-Leonard II was placed in an oval burial pit, approximately 1.04-x-0.52 m in dimensions and at least 22 cm deep. The burial pit was detected at a depth of approximately 3.1 m below surface (although it may have originated slightly above this). The individual was lying on her right side, with her head resting on her right hand, the left hand resting on the right wrist. Wilson-Leonard II's legs were flexed with the left leg crossing the right. The knees were drawn more than half way to the chest. She was generally in a northeast/southwest direction with the head to the north and facing west (Figure 31-1). Elements recovered include portions of the cranium, trunk, pelvic region, and upper and lower limbs (Table 31-5).

Field notes prepared by the excavators of the burial have been used to provide the following distillation of the exposure and removal of Wilson-Leonard II. The burial was exposed as a single unit, leaving skeletal material in situ to aid documentation. After the majority of the skeletal remains had been exposed, a detailed drawing of the burial was prepared. The location of the left hand was in the upper centimeters of the burial pit, and once the map of the burial was completed, these disarticulated bones as well as those of the feet were removed to aid the further excavation of the skeleton. Some hand and foot elements were dislocated due to postmortem movement within the soil. The larger long bone elements were then removed individually. Prior to removing the skull, four coats of a thin Elmer's glue solution were applied to the fragments. Then the consolidated cranium and underlying sediments were removed as a block for cleaning and restoration in the laboratory. The rib cage and pelvis were also removed as block units with underlying matrix for further excavation and conservation in the laboratory.

Taphonomy

While Wilson-Leonard II is represented by more skeletal remains than were recovered of the more-recent

Wilson-Leonard I, significant postmortem degradation occurred while the burial was in situ. Excavators noted that some of the bones, particularly the small bones of the hands and feet, had been dislocated either during the natural disintegration of the soft tissues or by bioturbation sometime later, although very little evidence of rodent activity in the burial pit was observed. One of the excavators noted that while much of the skeletal material was present, the bone preserved was very fragile. Most notable, however, were the multiple postmortem fractures found on all of the bones, with many of the fractures being complete breaks. The skull, in particular was crushed to approximately one-third its normal width (Figure 31-2). Excavators also noted that ends of the long bones were badly eroded. Because of this extensive fracturing, most of the bones were removed in fragments.

The currently reported examination of the skeletal remains under laboratory conditions generally substantiates the excavators' observations. Virtually all bones preserved and examined were extensively fractured, in many cases with complete fractures that had been reconstructed during conservation by another laboratory. In many cases, even though the surface details were obscured by a stabilizing medium, further erosion of the edges of the fractures after breakage could be seen. The ends of most of the long bones, which in life are covered with a thin cortex, were completely destroyed in situ, or the very friable material that remained could not be consolidated for preservation.

This destruction of the fragile bone was most apparent by the absence of many of the small bones of the wrists, hands, and feet. For example, of the 106 bones that comprise the wrists, hands, and feet, only 9 were recovered, preserved, and available for analysis. Upon analysis of the remains, the cause of this destruction could be attributed for the most part to mechanical breakage into smaller and smaller elements and to chemical erosion. On the larger fragments of the preserved bone, the effects of chemical dissolution of the cortical surface could be seen under magnification as pitting and generalized etching. None of the cortical bone examined under magnification was near the smoothness of cortical bone of dissection room comparative specimens.

Shortly after removal from the field, the skeletal remains, the skull in particular, were cleaned and stabilized, and for some of the bones, reconstruction was undertaken.

FIGURE 31-1. Illustration of Wilson-Leonard II in situ.

TABLE 31-5

List of Wilson-Leonard II Skeletal Elements Recovered

Anatomical Region	Skeletal Elements
Cranium	All or portions of the frontal, both parietals, occipital, both temporals, sphenoid, both zygomatics, both maxillae, both palatines, and the mandible
Vertebral Column	Axis, atlas, and portions of other unidentified vertebrae, and sacrum
Thorax	Portions of most ribs and sternum
Pectoral Girdle and Upper Limb	Portions of both clavicles, left scapula, both humeri, both radii, right ulna, and four metacarpal fragments
Pelvic Girdle and Lower Limb	Portions of both ilia, right ischium, both femora, both tibiae, both fibulae, left talus, and fragments of four metatarsals

Conservators at that time elected not to dismantle the fragmented skull. Instead, the skull was cleaned and stabilized with polyvinyl acetate and plaster in its crushed condition. A later attempt at some reconstructive work of the skull undertaken at a second laboratory separated the mandible

from the upper face and removed adhering matrix from the cranium. Sometime during these two periods of conservation, the right second and third maxillary molars were reversed. No attempt was made during the present analysis to reposition the teeth.

FIGURE REDACTED

FIGURE 31-2. Wilson-Leonard II cranium (left and right lateral and frontal views).

Sex and Age

Wilson-Leonard II was identified as a female by archaeologists as she was being excavated and this assessment has been substantiated by the more-detailed laboratory examination. The cranium is noteworthy for its gracile nature. The supraorbital brow ridges are slight as are the zygomatic arches and the muscle markings in the occipital region. The mastoid processes are slight. Though the mandible is broken and slightly crushed, the chin is still recognizably pointed, as typical of females. The body of the mandible is slight and the gonial angles are not everted, again, features typical of females. Although little of the pelvis is preserved, the sciatic notches are open as they more commonly are in females. A slight preauricular sulcus is apparent on the left ilial fragment but not on the right. The long bones are relatively gracile, particularly noticeable in the moderate muscle markings of the linea aspera of the femora, again, a condition more commonly seen in females than males. Although the heads of the femora are eroded and too poorly preserved for measurement, subjectively they appear relatively small in diameter. The left talus, also too poorly preserved for measurement, appears to be relatively small, again indicative of a female.

The age of the individual is estimated to be a late adolescent or young adult, probably in her early twenties at the time of death. Although few ends of the long bones remain, the proximal ends of the femora and the distal end of the right radius are preserved and their epiphyses are fused to the diaphyses. While the cranial sutures are damaged by erosion or obliterated by matrix or preservative materials, where they can be seen, it is apparent that they were under active fusion at time of death. The third molars (Figure 31-3), which would have erupted sometime around the eighteenth year, are erupted, in occlusion, and exhibit moderate wear. The first molars, which would have erupted sometime around six years of age, are worn to the point that windows of secondary dentin are exposed, but there is still enamel left on the occlusal surface of these teeth. One of the first molars

had been lost during life. This degree of dental wear is typical of more-recent prehistoric hunter and gatherer populations recovered from Central Texas. Considering this degree of wear as well as the state of fusion of the cranial and long-bone elements, Wilson-Leonard II was probably older than 18 years but little more than 25 years at time of death.

Body Size

Wilson-Leonard II is estimated to have been slight and relatively short. Table 31-6 presents the few measurements that could be determined from the mandible. Table 31-7 presents the postcranial measurements, and Tables 31-8 and 31-9 present the dental measurements.

The stature of Wilson-Leonard II is estimated to have been approximately 158 cm. Because the long bones are all incomplete, it was necessary to determine stature on the basis of the incomplete left femur. An estimate of femur length based upon Segment 1 was calculated using a discriminant function derived for American white females:

$$0.62(7.4) + 38.21 = 42.80 + 2.15 \text{ cm}$$

The calculated femur length was then used to estimate living stature based upon Genovese's (1967) formula derived for Mesoamerican females:

$$2.59(42.8) + 49.742 = 160.60 + 3.816 \text{ cm}$$

Since Genovese's estimation of stature was based upon a cadaveral sample, it is necessary following Trotter and Gleser (1952) to reduce the stature estimate by 2.5 cm to obtain the estimate of 158.1 cm + 5.15 cm for the living stature of the Wilson-Leonard II female. The increased estimate of variation takes into consideration that femur length was estimated following Steele (1970).

Considering the femur is incomplete and that Wilson-Leonard II was not a member of the two referent populations upon which the discriminant functions were

FIGURE REDACTED

FIGURE 31-3. Occlusal views of the maxillary and mandibular teeth of Wilson-Leonard II.

TABLE 31-6
Cranial Measurements (cm) of Wilson-Leonard II and Compared Paleoindians

Measure	Female					Male		
	Wilson-Leonard II	Gordon Creek	Pelican Rapids	Midland	Whitewater Draw I	Horn Shelter	Browns Valley	Sauk Valley
Maximum cranial length		17.3	17.9	18.0	17.0	18.7	19.3	18.6
Maximum cranial breadth		13.8	13.8	12.6	13.0	14.0	14.2	13.7
Cranial height (Basion-Bregma)			12.7				14.2	13.8
Auricular height		10.0	11.6			13.8	12.4	
Minimum frontal breadth			9.3			9.5	9.2	10.7
Basion-Nasion length			10.2					10.2
Bizygomatic breadth			12.7				14.0	13.5
Upper facial height		5.7	6.7				6.6	
Total facial height		10.8	11.4				11.0	
Nasal height		4.7	4.7				5.1	
Nasal breadth			2.1			2.4	2.4	2.8
Orbital height		2.9	3.4				3.6	3.2
Orbital breadth		3.7	3.8				3.8	4.5
Exterior palate breadth			6.5				6.6	
Estimated palate length							5.3	
Symphysial height						3.4	3.2	
Mandibular body length						7.9		9.5
Mandibular body height	3.0							3.9
Mandibular body breadth	1.2							1.6
Minimum ramus breadth	3.6						3.5	
Maximum ramus breadth								
Coronoid height	6.6							

TABLE 31-7
Postcranial Measurements (cm) of Wilson-Leonard II and Gordon Creek Females

Measurement	Wilson-Leonard II	Gordon Creek	Measurement	Wilson-Leonard II	Gordon Creek
Humerus			Clavicle		
Maximum length		27.5	Anterior/posterior diameter midshaft	1.0	0.9
Maximum diameter midshaft	2.0	1.9	Vertical diameter midshaft	0.9	0.8
Minimum diameter midshaft	1.5	1.3	Middle circumference	3.5	3.5
Minimum circumference	5.9	5.8	Femur		
Middle circumference	6.3	5.8	Segment 1	7.4	
Vertical diameter of head		4.0	Segment 2	21.4	
Transverse diameter of head		3.8	Anterior/posterior diameter midshaft	2.6	
Radius			Transverse diameter midshaft	2.6	
Anterior/posterior diameter midshaft	1.5		Anterior subtrochanteric diameter	2.6	
Trans. diameter midshaft	1.4		Transverse subtrochanteric diameter	3.6	
Middle circumference	4.5		Maximum head diameter	4.3	
Minimum circumference	3.5		Circumference midshaft	8.3	
Head diameter		1.8	Tibia		
Neck circumference		4.1	Segment 3	14.0	11.2
Ulna			Segment 4		10.0
Maximum length		23.3	Anterior/posterior diameter nutrient foramen	2.9	3.0
Pysiological length		21.1	Transverse diameter nutrient foramen	1.9	2.0
Middle circumference		4.5	Circumference midshaft	7.8	7.8
Minimum circumference		4.0	Minimum circumference	7.0	7.0
Maximum diameter		1.3	Fibula		
Minimum diameter		1.3	Maximum length		31.5
Dorso-volar diameter		1.2	Maximum diameter midshaft		1.3
Transverse diameter		1.3	Anterior/posterior diameter		1.3
Maximum breadth olecranon		1.8	Transverse diameter		1.0
Minimum breadth olecranon		1.6	Middle circumference		4.0
Olecranon-radial notch		2.5			
Olecranon-coronoid length		2.1			

based, the estimate is at best a crude assessment of stature. There are several points worth noting, however. The estimate is comparable to the mean stature of Genovese's Mesoamerican female sample (152.3 cm, a sample selected to be as close to an indigenous America population as Genovese could obtain). The estimate is also comparable to estimated statures for similar prehistoric American samples of hunter-gatherers (Table 31-10).

The only other female Paleoindian individual for which stature could be estimated is the Gordon Creek burial from Colorado. This individual is of comparable antiquity but is from a different geographical region. For this report, the Gordon Creek stature estimate was based on reconstructing the tibia length from a fragment from which Segments 3 and 4 could be measured following Steele (1970). Obtaining an estimated tibia length of 31.76 cm + 0.99 cm, a living stature estimate for the Gordon Creek female of 147.6 + 6.21 cm was

calculated utilizing Genovese's discriminant function for Mesoamerican females and calculating the standard error following Steele (1970). This is comparable to the stature estimate of 149.5 cm, based on fragments of the humerus and ulna and the complete fibula reported by Breternitz et al. (1971). Based on these calculated statures, the Gordon Creek female is smaller than the Wilson-Leonard female and smaller than the reported samples of hunters and gatherers and Genovese's Mesoamerican cadaveral sample. The small size of the Gordon Creek female is born out by a subjective assessment of the rest of the skeleton as well. Whether the size difference between Wilson-Leonard II and the Gordon Creek female reflect regional differences or just variants of similar-sized populations is impossible to say. The author has noted, however, that the Whitewater Draw I and II females from Arizona, which are of comparable antiquity, also appear to be small like Gordon Creek.

TABLE 31-8
Crown and Neck Measurements (mm) of Maxillary Teeth of Paleoindian Females

Measurement	Incisor 1	Incisor 2	Canine	Premolar 3	Premolar 4	Molar 1	Molar 2	Molar 3
Wilson-Leonard II:								
Crown MD	8.6	8.1	7.9	7.8	7.2	10.8	10.6	10.5
Crown BL	8.1	6.8	8.6	10.8	10.7	12.2	11.4	11.7
Crown HT	8.4	8.4	8.3	7.8	7.8	8.2	9.4	7.9
Neck MD	5.5	5.1	5.8	4.8	4.7	7.4	7.2	7.0
Neck BL	6.8	6.7	8.0	9.4	8.0	11.0	10.8	10.0
Gordon Creek:								
Crown MD	6.8	5.3	7.2	6.7	5.9	9.5	9.5	9.4
Crown BL	7.5	6.5	8.2	9.4	8.5	11.2	11.2	10.3
Crown HT	4.0	4.0	5.8	5.7	5.1	5.0	5.8	5.6
Neck MD	5.7	4.6	5.7	4.5	4.1	7.6	7.4	7.2
Neck BL	6.8	6.5	7.5	8.7	8.1	10.6	10.6	9.9
Whitewater Draw II:								
Crown MD	8.0	6.4	7.7	7.0	6.2	10.5	10.5	8.5
Crown BL	7.3	6.5	8.3	9.5	9.2	11.4	10.9	9.5
Crown HT								
Neck MD								
Neck BL								
Pelican Rapids:								
Crown MD	8.0	7.5	8.5	7.5	7.5	12.0	10.0	
Crown BL	8.0	7.0	10.0	10.5	10.5	12.5	12.5	
Crown HT								
Neck MD								
Neck BL								

Note: MD=Medial-Distal; BL=Buccal-Lingual; HT=Height

To get some sense of the amount of sexual dimorphism (male stature/female stature x 100) that may have been present in the early Holocene population of Texas, the Wilson-Leonard female was compared to the Horn Shelter male, an individual of comparable antiquity who was also recovered from Central Texas. Comparing these two provided a sexual dimorphic ratio of 102.7%. This estimate falls close to the typical degree of sexual dimorphism for humans. When the average of the two Paleoindian females (Wilson-Leonard and Gordon Creek) was compared to the two Paleoindian males (Horn Shelter and Sauk Valley), a larger sexual dimorphic ratio of 107.9% was obtained. This second assessment probably suggests too great a degree of sexual dimorphism because the small size of the Gordon Creek female skews the female sample.

Personal Features

The personal features of Wilson-Leonard II are difficult to determine because of the extensive crushing that the skull has undergone and the degree of postmortem destruction of the rest of the skeleton. The shape of the

cranium can only be estimated since the conserved skull is about one-third its natural width. Given this caveat, however, this author, working in conjunction with B. P. Gatliff, estimated the natural dimension of the cranium to assist Gatliff in preparing a facial reconstruction of the Wilson-Leonard II female (Phelps et al. 1994; Steele and Powell 1993). The dimensions estimated to assist in the facial reconstruction were: maximum cranial width, 12.5 cm; maximum cranial length, 17.5 cm; bizygomatic width, 12.2 cm; palate width, 5.6 - 6.0 cm; total facial height (nasion - gnathion), 11.5 cm; gonion - gonion, 9.5 cm.; and nasospinale - gnathion, 6.6 cm. These dimensions are listed here to document the author's interpretation of the cranial shape of Wilson-Leonard II but are not included in Table 31-6 because these are not accurate measurements but dimensional inferences only. Based on these dimensions, the braincase and face of Wilson-Leonard II is believed to have been relatively narrow. This reconstruction also suggests that the face was distinguished by a moderate degree of alveolar prognathism (Figure 31-4). A second attempt to reconstruct the facial features of the Burial 2 female is currently underway in collaboration with Denis C. Lee of the

TABLE 31-9
Crown and Neck Measurements (mm) of Mandibular Teeth of Paleoindian Females

Measurement	Incisor 1	Incisor 2	Canine	Premolar 3	Premolar 4	Molar 1	Molar 2	Molar 3
Wilson-Leonard II:								
Crown MD	4.9	6.8	7.6	7.6	7.4	11.2	12.2	12.2
Crown BL	5.3	6.3	8.6	8.5	8.5	11.0	11.7	11.4
Crown HT	7.4	7.4	9.4	7.7	6.5	7.4	7.5	6.7
Neck MD	3.1	4.4	4.6	4.4	4.9	9.4	10.0	9.9
Neck BL	5.0	5.9	8.2	7.5	6.6	8.4	8.5	8.5
Gordon Creek:								
Crown MD		5.1	6.3	7.6	6.7	11.0	11.0	11.7
Crown BL		6.5	7.5	8.4		11.3	10.9	11.4
Crown HT		4.8	5.7			3.7	5.0	5.0
Neck MD		3.8	4.8	5.1	5.0	9.0	8.8	
Neck BL		6.4	7.4	7.6	7.3	9.6	9.1	
Whitewater Draw II:								
Crown MD	5.8	5.7	6.8	6.2	6.2	11.6	11.1	10.6
Crown BL	5.8	6.3	7.4	7.5	8.0	11.9	10.8	10.3
Crown HT								
Neck MD								
Neck BL								
Pelican Rapids:								
Crown MD	5.5	6.5	7.5	8.5	7.5	13.0	11.5	12.5
Crown BL	6.0	6.5	8.5		9.5	12.5	12.0	12.0
Crown HT								
Neck MD								
Neck BL								

Note: MD=Medial-Distal; BL=Buccal-Lingual

Department of Medical Illustration and Sculpture at the University of Michigan.

Few of the infrequently occurring discrete traits were noted on the Wilson-Leonard II skeleton. For the cranium, the sutures of the calotte are relatively simple, particularly the lambdoid suture, which has no large ossicles and only a very few small ones. Considering the face, the supraorbital foramina are notched with less than one-half of the notch being bounded inferiorly by a spicule of bone, and the mandible exhibits a single mental foramen on each side. No less-frequently occurring discrete traits were observed postcranially.

Medical Disorders

Medical disorders observed on Wilson-Leonard II were restricted to the dental arcade (Table 31-11). These include a small caries that had not reached the underlying dentin on the disto-occlusal surface of the right mandibular second molar, a small caries on the distolingual surface of the right mandibular third molar, an apical abscess of the right distal premolar, the antemortem loss of the right mandibular first

molar, a cracked left second maxillary molar (the crack extending across the molar separating it into buccal and lingual halves), and alveolar resorption along the complete dental arcade (Figure 31-5). In addition to these disorders, the incisal surfaces of the incisors and canines have been disproportionately worn compared to the occlusal surfaces of the molars and premolars. While this last condition is not necessarily a medical disorder, it is discussed in this section for the sake of convenience.

Several observations can be made by comparing Wilson-Leonard II's disorders to other Paleoindians, and the Paleoindians collectively to more recent hunters and gatherers. Among the Paleoindians with preserved teeth, Wilson-Leonard II is one of two individuals to have caries. She, along with the older Horn Shelter male are the only individuals with identifiable cases of an antemortem tooth loss. On the other hand, three Paleoindians with preserved teeth have at least one abscess. Also, all Paleoindians exhibited moderate to marked alveolar resorption, exposing the roots of the implanted teeth along the dental arcade. In comparison to Archaic assemblages, Paleoindians have a lower frequency of caries but a higher frequency of abscesses (Powell and

TABLE 31-10
Comparative Human Stature Estimates (cm) of Prehistoric Samples

Sample	Number	Female $\bar{x} \pm \sigma$	Number	Male $\bar{x} \pm \sigma$
Paleoindians¹				
Wilson-Leonard II	1	158.1		
Gordon Creek	1	147.6		
Horn Shelter			1	162.4
Sauk Valley			1	167.5
West Texas Hunter/Gatherers²				
Trans-Pecos	5	158.4 $\pm$ 3.5	6	167.4 $\pm$ 2.4
Lower Pecos	14	158 $\pm$ 4.9	21	166.0 $\pm$ 4.2
Tamaulipas	3	158.1 $\pm$ 5.3	9	166.7 $\pm$ 4.8
Central Texas Hunter/Gatherers³				
Loeve-Fox	5	162.0	12	166.7
Eastern U.S. Hunter/Gatherers⁴				
Indian Knoll	188	156.6 $\pm$ 4.6	163	165.2 $\pm$ 4.4

¹Measurements made by author

²data in Steele and Powell (n.d.)

³from Prewitt (1974)

⁴from Snow (1948)

FIGURE REDACTED

FIGURE 31-4. Sequence of photographs illustrating the reconstruction of Wilson-Leonard II.

TABLE 31-11
Medical Disorders Observed in Paleoindians

Sample	Age	Tooth Loss	Abscess	Degenerative Joint Disease	Fracture	Infection	Porotic Hyperostosis	Growth Arrest Lines
Female								
Wilson-Leonard II	20-25	X	X					
Gordon Creek	25-30			X				
Whitewater Draw I	30-50						X	
Whitewater Draw II	36-50							
Midland								
Pelican Rapids					X			X
Male								
Horn Shelter I	35-40	X	X	X	X	X		
Horn Shelter II	12-18					X		X
Browns Valley	20-30					X		
Sauk Valley	25-40		X	X				

FIGURE REDACTED

FIGURE 31-5. Lateral view of right mandible of Wilson-Leonard II illustrating abscess, antemortem loss of first molar, and alveolar resorption.

Steele 1994). This degree of alveolar resorption is akin to Archaic assemblages.

In examining the remains of the Paleoindian assemblage, Steele and Powell (1993) and Powell and Steele (1994) found that Paleoindians, again like more-recent hunters and gatherers, were afflicted by a variety of pathological conditions typical of physically active individuals (see Table 31-11). Three Paleoindian adults exhibited vertebral osteophytoses typical of degenerative joint disease, two of these individuals exhibited similar degenerative damage in the shoulder, and one individual had degenerative changes in one bone of the foot. One adult male (Horn Shelter I), exhibited a healed fracture of the fifth metatarsal of the foot, and one adolescent female (Pelican Rapids), had sustained a rib fracture. Infectious bone deposition was observed in the sinus cavity of one adult and one adolescent (Horn Shelter I and II),

and one individual exhibited a small patch of subperiosteal bone growth on the right clavicle (Browns Valley). There was one possible case of a healed condition of porotic hyperostosis (Whitewater Draw). In addition, Powell and Steele (1994) reported growth arrest lines in the tibiae of two Paleoindians, and four Paleoindians exhibited growth arrest lines in the teeth (dental hypoplasias).

In addition to these disorders, Powell and Steele (1994) described the disproportionate wear of the anterior teeth

compared to the molars in Paleoindians (noted in the Wilson-Leonard II, Gordon Creek, and Midland females). They documented that the extent of anterior tooth wear in the Paleoindians approached that seen in Upper Paleolithic hunters and gatherers of Europe and exceeded that reported for Eskimos, a population noted for the use of anterior teeth as tools. While they expressed a note of caution about the small sample size, Powell and Steele suggested that this condition in the Paleoindians may reflect a pattern of heavy use of the anterior teeth as tools as well. This condition also has been noted for an Archaic assemblage from Texas (Marks et al. 1988).

Subsistence Habits

Two broad subsistence models have been proposed for Paleoindians. The traditional perspective has been that Paleoindians were big-game hunters who spread downward through the Americas in search of new hunting territories. In this model, big game was abundant and easy prey for the newly arrived predator (Funk 1978; Kelly and Todd 1988; Stoltman 1978). With the ready access to game, it was unnecessary to forage for less nutritive and more difficult to procure, process, or digest smaller game or plants. With the demise of the megafauna at the end of the Pleistocene, Paleoindian hunters were forced to adapt to less game-enriched habitats and became the foragers of the Archaic.

The alternative view to this big-game model is the more-generalized dietary model (Dent 1985; Dincauze 1981; Kornfeld 1988; Meltzer and Smith 1986; Olsen 1990; Smith 1986). This model sees the ecological changes that occurred between the Pleistocene and the Holocene as occurring more gradually and having less impact on the subsistence patterns of humans. Because the transition between the Pleistocene and Holocene may have been less marked, many of the Paleoindian populations may have had a more-generalized diet akin to their Archaic descendants. As there were big-game hunting specialists in some regions among the Archaic and Late Prehistoric American populations, there were big-game specialists among the Paleoindians, but within the broader scope of the Americas, the Paleoindians followed generalized foraging patterns as did their Holocene descendants.

To address this issue, Powell and Steele (1994) conducted a macro- and microscopic examination of dental disorders and occlusal wear of the teeth of Wilson-Leonard II and other Paleoindian remains. They reported a slightly lower frequency of developmental interruption lines (hypoplasias) among the Paleoindians than Archaic populations, a lower caries rate per individual and per tooth, but a higher frequency of abscesses than seen in most Archaic assemblages. Alveolar resorption was also reported for Paleoindians, a condition associated with infected gums and plaque deposition.

In evaluating dental wear, they found that the tooth cusps of most Paleoindians tended to be worn flat in a pattern typical of later hunters and gatherers. Gordon Creek, the exception, exhibited a cupped type of wear of the molars. Microscopic examination of the teeth of Wilson Leonard II, Gordon Creek, and Whitewater Draw II females documented a range of abrasive patterns. Wilson Leonard II had frequent pits and some evidence of moderate to large striations, Whitewater Draw II exhibited extensive polishing and fine striations, and Gordon Creek had larger, more frequent striations and gouges. The generally flattened wear on the teeth suggests either the long-term use of the teeth, or the mastication of hard and/or gritty foods. The pattern is typically seen in later hunters and gatherers. The cupped pattern of wear seen in the Gordon Creek female has been attributed by Smith (1983:126) to the consumption of ground grain or nuts or the ingestion of grit such as sand or opaline phytoliths from plant foods. The enamel pitting and compression fracturing observed on the Paleoindians resembled the sort of damage seen on the teeth on a variety of Archaic individuals (Bement 1991; Harmon and Rose 1988; Hartnady and Rose 1991; Marks et al. 1988). The cause proposed by Harmon and Rose (1988) for the damage to the teeth is the consumption of hard foods such as hull or hard seeds. Powell and Steele (1994) note, however, that the consumption of bone cannot be ruled out as another possible cause of the damage.

In summary, the evidence provided by the dental examination of Wilson-Leonard II and other Paleoindian remains

suggests that the dietary patterns may not have been very different between Paleoindians and later hunters and gatherers. What cannot be determined is the relative amounts of meats and vegetal matters consumed by these prehistoric peoples, a point discussed by Wilson (see Chapter 32) as well.

Population Affinity

Assessing the biological affinity of Wilson-Leonard II is more an issue of assessing that of the population of which she is a representative rather than her individual biological affinity. In the most general sense, Wilson-Leonard II and the population of which she is a member can be assigned to the populations of North American Indians. This self-evident assessment, based upon the location of the remains and the cultural context, can be corroborated by an examination of the dentition.

One of the most notable dental characteristics of Native Americans and their biological relatives is the shoveling of the upper incisors. This feature is relatively uncommon among European and African populations and is quite common among Asian and Native Americans. Documenting this distribution, Turner (1985a, 1985b) reports the frequency of shoveling of the upper central incisors to be less than 35% for Northwest Europeans (1985a) and in excess of 90% for American Indians (1985b). Although the anterior teeth of Wilson-Leonard II are worn, enough of the crown is left to document that the tooth was shoveled. The second incisors were shoveled as well.

Being more specific in assessing biological affinity of Wilson-Leonard II's population is fraught with difficulties, not the least of which is the extent of postmortem crushing of the cranium. On a subjective basis, the shape of the cranium appears to be relatively narrow and long and the face relatively short and narrow. Also, the face appears to have had a moderate degree of alveolar prognathism. In these characters, Wilson-Leonard II is similar to the Gordon Creek and Pelican Rapids females and is similar to the Whitewater Draw and Midland females in the relatively narrow dimensions of the braincase. Similar shape of the braincase and face of Paleoindian males has been noted as well (Steele and Powell 1992, 1993, 1994).

Bivariate analyses of these features are illustrated in Figures 31-6 and 31-7. The metrical data for the Paleoindian females is based on the Gordon Creek and Pelican Rapids females, and the data for the Paleoindian males is based on the Browns Valley, Sauk Valley, and Horn Shelter individuals (see Table 31-6). The data of the more-recent populations was derived from the literature. The populations, their locations, antiquity, references, and the means of the measurements utilized are presented in detail in Steele and Powell (1994).

Considering the cranial dimensions, the skulls of the Paleoindian males are on average among the longest of the

FIGURE 31-6. Bivariate plots of mean cranial lengths and widths of Paleoindian males (a) and females (b) compared with prehistoric and modern populations. Diagonal lines separate brachycranial, mesocranial, and dolichocranial samples, respectively. Selected populations are named in graph. After Steele and Powell (1992).

a. Paleoindian males

b. Paleoindian females

FIGURE 31-7. Bivariate plots of mean facial lengths and widths of Paleoindian males (a) and females (b) compared with prehistoric and modern populations. Diagonal lines separate brachycranial, mesocranial, and dolichocephalic samples, respectively. Selected populations are named in graph. After Steele and Powell (1992).

36 compared samples; only 2 samples, South Australians and Upper Cave at Zhoukoudien (an Upper Pleistocene/Early Holocene specimen) exceed them. Thirteen of the 36 samples possess significantly shorter cranial lengths, 8 of these being North American Indians. Texas Archaic and Pre-Aleut are 2 other assemblages of early antiquity with long crania. The cranial length of the females is also relatively long but not as dramatically. Of the 34 female samples compared, the Paleoindian females are longer than 21 of the samples but shorter than 12 samples. None of these latter samples, however, is significantly longer than the Paleoindian females. Examining the American assemblages only, the Paleoindian females have longer crania than 8 but shorter than 4 of the samples. Three of the 4 longer samples are temporally early as well (Tennessee Archaic, Texas Archaic, and Pre-Aleut).

Considering the breadth of the cranium, 19 of the samples exceed the Paleoindian male sample, and 4 of these are significantly broader. Evaluating the Paleoindian female sample, 12 of the compared samples are broader (3 are significantly broader). When the dimensions of length and breadth are considered in relationship to one another to elucidate shape, the Paleoindian males are documented to have relatively oblong crania (dolichocranic). This tendency toward relatively narrow crania is also seen in the older American assemblages (Tennessee Archaic, Indian Knoll, Pre-Aleut, and Texas Archaic) compared to the temporally more-recent American samples (Pecos, Peru, Arikara, Northwest Coast, Aleut, and Tennessee Mississippian).

The trend of older assemblages having more oblong crania is documented in the female samples as well. The Paleoindian females are relatively narrower than six of the North American Indian samples but relatively broader than four of the North American Indian samples. Three of the four female samples that have narrower mean crania than the Paleoindian females, however, are older assemblages as well. This trend toward older assemblages having relatively narrower crania is seen particularly clearly in the two local temporal sequences, Aleuts and Tennessee populations illustrated in Figures 31-6 and 31-7. In the Tennessee Archaic, Woodland, and Mississippian assemblages, respectively, length decreases (17.6 cm, 16.2 cm, 15.9 cm) while breadth increases (13.6 cm, 14.3 cm, and 14.5 cm). There is a strong probability that the very wide crania of the Woodland and Mississippian samples also is a reflection of more frequent and a greater degree of crania modeling than is seen in the Tennessee Archaic. In the Pre-Aleut and Aleut samples, length decreases from 18.7 cm to 18.0 cm, respectively, and breadth increases from 14.7 to 15.1 cm, respectively.

In facial dimensions, the Asian and American Indian populations are distinguished by the breadth of their faces (see Figure 31-7). Within this general trend, however, both male and female Paleoindian samples are distinctive among American populations by having relatively narrower and shorter faces than is common for American samples. Again,

this trend for shorter and narrower faces is seen in the other American assemblages of greater antiquity. For the males, the Tennessee Archaic, Tennessee Woodland, and the Indian Knoll samples cluster closely with the Paleoindian males, and for the females, Indian Knoll clusters closely with the Paleoindian females.

The relationships of the Paleoindian samples to more-recent American Indian, Asian, and other populations have been explored in multivariate analyses as well (Steele and Powell 1992, 1993, 1994). Figure 31-8 illustrates the relationships of these populations based on a principal components analysis of size-correlated data. Note that the Paleoindian samples for both males and females fall at the edge of the distribution of American Indian samples, toward the Australian and southern Pacific rim samples and away from the northeast Asian samples. This pattern of distribution is reflecting the relatively narrower braincase and shorter and narrower face of the Paleoindian males and females, features that they share more closely with Australian and southern Asian samples and that are in contrast to the broader crania and faces of northeast Asians and more-recent North American Indians.

In summary then, the shape of the braincase and face of the Paleoindians used in these metrical analyses and the subjective assessment of Wilson-Leonard II suggest these early samples represent a population that differed from more-recent North American Indians and northeast Asians and resembled a more-generalized Asian stock. This view was proposed as early as the 1920s and has been accepted at least in part by many subsequent scholars (Dixon 1923; Hooten 1933; Hrdlicka 1923; Protsch 1978; Stewart 1960, 1973; Stringer and Andrews 1988). The model in these early studies, based predominantly on Archaic assemblages exhibiting the relatively long and narrow crania, proposed a genetic cause for these differences. The initial colonists of the Americas were descendants of a more-generalized Asian population who inhabited northeastern Asia. This hypothetical ancestral Asian population was identified as either protomongoloid or protocaucasoid. In this model, after the initial colonization of the Americas occurred, the generalized Asian population was replaced in northern Asia by a population distinguished by a broader head and face. Subsequent colonizations of the New World by these peoples replaced the descendants of the earlier long-headed colonizers or displaced them, pushing them into peripheral and less-favorable habitats.

While this model fell into disfavor during the mid-twentieth century because of some proponents' reliance upon inadequately dated samples, samples that were too small, or a typological perspective, recent analysts approaching the issue with different assemblages and perspectives have come to the conclusion that an earlier population is indeed distinctive. Neves and Pucciarelli (1989, 1991) found that the earliest authenticated remains from South America are distinguishable from more-recent South

FIGURE 31-8. Plot of principal component analysis of size-corrected data for Paleindian males (Graph A) and females (Graph B) compared with prehistoric and modern populations. After Steele and Powell (1994).

American populations by their relatively longer and narrower braincase and that they structurally resemble southern Asians and Australians in these features. Neves and Pucciarelli's body of research, using similar anatomical features but analyzing different samples, remarkably parallels the work of Steele and Powell (1992, 1993, 1994), which is based predominantly on North American assemblages. Brace and Tracer (1992) represent yet a third line of research coming to the same conclusion. Their work, based primarily on measurements of the upper face, documents that North American assemblages can be divided into two basic groups.

While the distinctiveness of the Paleoindians and many of the Archaic assemblages is now confirmed, the underlying biological mechanisms that have created these differences are more difficult to discern. One view accepts the genetic cause, the earliest colonizers from Beringia being a different genetic population than later northern Asians and their North and South American descendants. The alternative view is that these differences reflect a phenotypic adaptation of a single lineage through time, the later populations of this single lineage simply adapting phenotypically, but not genotypically, to a different environment or lifestyle, one possibly associated with the origins of agriculture. At the present time it is difficult to resolve this issue.

Summary of Wilson-Leonard II Investigation

The Wilson-Leonard II biological remains recovered from a burial pit consist of a relatively complete but badly crushed and eroded skeleton of a young late adolescent/adult female in her early twenties. The individual was estimated to be 158.1 ± 5.15 cm tall during life, a stature compa-

rable to more-recent hunting and gathering native American females from the region. Her proportions and muscle markings indicate she was a relatively slight individual. A reconstruction of the head and facial features of Wilson-Leonard II indicates that she had a relatively narrow cranium and face and a face with a moderate alveolar protrusion.

The only medical disorders noted on the skeleton concern the dentition and alveolar margins of the maxillae and mandible. Two small caries were noted on the right second and third mandibular molars, the caries on the second molar not having reached the underlying dentin. In addition to the caries, the right first mandibular molar had been lost antemortem and there was an apical abscess of the right distal premolar. Along the entire margins of the maxillae and the mandible, the alveolar bone surrounding the upper portion of the roots of the teeth has been resorbed. No cause of death is indicated in the skeletal remains.

The biological affinity of Wilson-Leonard II and the other Paleoindians is, in the broadest sense, with more-recent native American Indians and northern Asians. It has been documented, however, that the Paleoindian assemblages share with many of the Archaic hunters and gatherers a narrow cranium and a narrower and shorter face than is found in more-recent Native Americans and northern Asians. These distinctive features may be a reflection of an earlier population with a slightly different genome, or these differences may reflect different phenotypic responses of a single genetic population adapting to different environmental and cultural conditions over time.

Obviously there are too few data to fully characterize the Paleoindian population(s). This paucity makes the Wilson-Leonard II burial of particularly high importance.

STABLE ISOTOPIC RESULTS FOR BURIALS 1 AND 2

by Diane E. Wilson

STABLE ISOTOPE ANALYSIS

Since 1977, when Nicholas van der Merwe and John Vogel first published their results of stable carbon isotope studies documenting the introduction of maize into eastern North American prehistoric economies, stable carbon isotopic analyses have proliferated in the study of prehistoric diet (Ambrose 1993; Katzenberg et al. 1995; Krueger and Sullivan 1984; Little and Schoeninger 1995; Price 1989; van der Merwe and Vogel 1978; Vogel and van der Merwe 1977). These studies have been successful across much of the United States because the environment generally lacks naturally occurring C_4 food plants, such as maize.

Stable carbon isotope analytical technique is based upon the existence of two stable carbon isotopes (^{12}C and ^{13}C) that occur in abundance in nature. The better known radioactive carbon isotope, ^{14}C , is unstable and cannot be used in this type of analysis because it decays and changes form over time. The ratio between ^{13}C and ^{12}C in substances (typically apatite, collagen, hide, hair, soil), measured with a mass spectrometer, is compared against a standard source. In the case of carbon, this source is the Pee Dee Belemnite Formation found in South Carolina, noted as PDB. The ratio of sample to standard yields the final numeric value expressed as $\delta^{13}\text{C}$ (‰). The measured units are expressed in parts per mil (‰).

Plants are divided into three groups, C_3 , C_4 , and Crassulacean Acid Metabolism (CAM), based on the form of photosynthesis that is used. Most plants including trees, shrubs, and many grasses, use C_3 photosynthesis. The C_4 plants are generally adapted to more-arid conditions and include many grasses such as maize, sorghum, and millet. The small group of CAM plants have the ability to utilize both C_3 and C_4 photosynthetic pathways. CAM plants are composed mostly of desert succulents. The three photosynthetic pathways have differing carbon stable isotope

ratios in response to fractionation during CO_2 fixation. The C_3 plants discriminate more aggressively against ^{13}C during photosynthesis than do C_4 plants, thus C_3 plants yield the lowest $\delta^{13}\text{C}$ values, averaging -26.5‰ (van der Merwe 1982), because C_3 plants have less ^{13}C in their biomass. The C_4 plants discriminate far less against ^{13}C and thus have the highest $\delta^{13}\text{C}$ values, averaging -12.5‰ (Schoeninger 1989:52). CAM plants may mimic either C_3 or C_4 isotopic signatures and generally mimic plants in their immediate environment. In Central Texas, CAM plants have $\delta^{13}\text{C}$ values similar to those of the C_4 plants (Jeffery Huebner, personal communication 1996).

Consumers incorporate carbon into their own biomass through the processes of digestion. Before the carbon source enters specific tissues in the body it undergoes an enrichment factor, often called the fractionation factor. The incremental change from dietary carbon source to consumer's collagen averages 5‰; therefore, if an herbivore consumes a purely C_3 diet, its $\delta^{13}\text{C}$ collagen will average -21.5‰ (-26.5 + 5)‰. In carnivores and omnivores there is further fractionation of approximately 1‰ (Chisholm 1989:13).

Bone is composed of two basic components: apatite (bone carbonate) and collagen. Collagen comprises about 90% of the organic component of bone, while apatite is found in the mineral component. Until recently, the use of apatite had limited application in paleodietary reconstructions, due in part to fear of greater diagenesis in surface apatite which is avoided by the use of structural apatite. Recent testing indicates that $\delta^{13}\text{C}$ collagen values represent the dietary protein source particularly in low protein diets and $\delta^{13}\text{C}$ apatite values represent the dietary whole with a bias of overrepresentation of carbohydrates and fats in low protein diets (Ambrose 1993; Krueger and Sullivan 1984). The difference between collagen and apatite $\delta^{13}\text{C}$ values represents the amount of protein in the diet, while $\delta^{15}\text{N}$ values may reflect the protein source (Ambrose 1993; Krueger and Sullivan 1984).

In animals with low protein diets, it is assumed that the consumed protein is allocated to growth and the maintenance of tissues such as collagen rather than to energy metabolism. In these diets, carbohydrates and fats are allocated to energy metabolism. Bone carbonate is thought to be derived mainly from blood bicarbonate which is generated by the metabolism of energy substrates. In herbivores, carbon found in bone carbonate and collagen comes from isotopically similar sources because the difference between plant carbohydrate and protein is small and lipids are only a minor part of the diet. Carnivores and omnivores depend on lipids for some energy metabolism. Since lipids have less $\delta^{13}\text{C}$ than carbohydrates and proteins, carnivores and omnivores have smaller difference (DCA-CO) values than herbivores. Therefore, the $\delta^{13}\text{C}$ collagen value is a function of the growth substrate (protein), while the $\delta^{13}\text{C}$ apatite value is a function of the energy substrate (fats and carbohydrates) (Ambrose 1993; Krueger and Sullivan 1984).

In large mammals such as humans, $\delta^{13}\text{C}$ collagen and apatite values can reflect long-term diets of individuals since apatite and collagen replacement rates are slow. Turnover rates describe the amount of time that an isotopic value indicates an average diet before the bone material is replaced. Collagen seems to have a slow turnover rate, although replacement rates in general have been poorly studied. Harold Krueger (personal communication 1995) believes a turnover rate of approximately 35 years is found in large mammals. Higher rates are seen for infants and children than in adults. Turnover rates are approximately four times higher for trabecular bone compared to cortical bone (Ortner and Putschar 1981).

Although sampled less often than carbon, nitrogen isotopic values ($\delta^{15}\text{N}$, compared against the Atmospheric Nitrogen [AIR] standard) can be used to examine the source of nitrogen-fixing plants and protein (from both animal and plant sources) in the diet (Schoeninger 1989:47). Nitrogen isotopes have also been used with much success to isolate marine dietary sources (Little and Schoeninger 1995). When preservation is poor, nitrogen rarely remains intact.

RESULTS OF WILSON-LEONARD I AND II ANALYSIS

Methods

A 5-g sample of cortical bone was removed for analysis from both Wilson-Leonard I and Wilson-Leonard II (see Chapter 31). Both samples were sent to Geochron Laboratories of Krueger Enterprises, Inc., in Cambridge, Massachusetts, for $\delta^{13}\text{C}$ apatite and $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ gelatin (the byproduct of laboratory collagen separation) analysis. Upon visual inspection of the human remains, preservation of both samples was determined to be poor.

Gelatin

Delta ^{15}N gelatin determinations were not possible on such poorly preserved samples. Additionally, nitrogen gas volumes were very low indicating that the C/N ratio was outside the range for unaltered collagen. Nevertheless, $\delta^{13}\text{C}$ gelatin results were obtained but should be considered highly suspect, especially the result for Wilson-Leonard II (Table 32-1). Assuming a fractionation factor of 5‰ between the original dietary source and the consumer, it is unlikely in the paleoenvironment of Central Texas to have a consumer's $\delta^{13}\text{C}$ gelatin value of -25.2‰. A consumer ingesting dietary carbon sources entirely from C_3 plant sources is expected to produce a $\delta^{13}\text{C}$ signature in the range of -21.5‰. This appears to be the case for Wilson-Leonard I, however, collagen yields for this individual were low and should be considered suspect, despite its falling within the predicted range. The -25.2‰ value for Wilson-Leonard II suggests that preservation is a problem.

Apatite

Since it is easier to remove contaminants from apatite in the lab, the apatite values presented here are believed to reflect actual dietary signatures rather than diagenic sources (Harold Krueger, personal communication 1995). It is currently believed that apatite values are a better indicator of the dietary whole than gelatin. However, in low protein diets, apatite is biased toward carbohydrate sources in the diet, while gelatin is representative of protein sources. The normal range of $\delta^{13}\text{C}$ apatite values for consumers is -14‰ to -1‰, -14‰ being the value for a completely C_3 -based diet and -1‰ for a completely C_4 -based diet. Apatite values indicate that the majority of the diet originated in C_3 photosynthetic pathways. It also appears that at least some of the diet of the individuals buried at the Wilson-Leonard site originated in C_4 and/or CAM plants. It is likely that the individuals buried at the Wilson-Leonard site consumed either prickly pear and/or C_4 grass seeds, and/or their consumers. Bison, for example, are known to consume both C_3 and C_4 grasses and some were found at the site.

SUMMARY

Since gelatin values must be questioned, it is impossible to determine relative amounts of protein consumed by the two individuals tested. Relative amounts of protein consumed can be estimated by comparing the carbon apatite and gelatin difference values. High protein diets tend to have lower difference values than low protein diets. When the natural environment is considered in relation to the stable isotope results, it is clear that the individuals interred at the Wilson-Leonard site had sufficiently high amounts of protein in their diets.

TABLE 32-1
Delta ^{13}C Apatite and Gelatin Values for Wilson-Leonard I and II

41WM235	^{13}C apatite (‰)	^{13}C gelatin (‰)	^{15}N gelatin
Wilson-Leonard I	-9.2	-21.1	
Wilson-Leonard II	-11.2	-25.2	

Results are computed by the following formula:

$$\text{dR}_{\text{sample}}\text{‰} = [\text{R}_{\text{sample}}/\text{R}_{\text{standard}} - 1] \times 1000$$

Where $^{13}\text{C}/^{12}\text{C}$ standard is PDB and $^{15}\text{N}/^{14}\text{N}$ standard is AIR.

Note that the ^{13}C gelatin results for burial are not possible without diagenesis.

The results presented here fall within the range of carbon apatite stable isotope values of other Central Texas hunter-gatherers (Figure 32-1). Values indicate a primarily C_3 based subsistence economy, with some protein originating in C_4 consumers. This is consistent with the natural environment in Central Texas and fits an expected pattern for exploiters of the Central Texas ecozone.

CONCLUSIONS

Visual inspection of the Wilson-Leonard I and II skeletons revealed fragmentary remains with some surface erosion and suggested that some alteration of the chemical composition of these bones had taken place. The ratio of carbon to nitrogen gas volumes indicates that some of the bone collagen has been altered. The C/N values suggest that $\delta^{13}\text{C}$ gelatin values for Wilson-Leonard II should likely be distrusted and Figure 32-1 shows that the $\delta^{13}\text{C}$ gelatin value for Wilson-Leonard II is outside the range of values from other Central Texas hunter-gatherers. Results indicate a diet low in protein with exploitation of a food chain based on C_3 plants. Likely exploited foods include a subsistence base of nuts, predominately acorns and pecans, supplemented by terrestrial meat sources, probably of deer and rabbit.

While slightly elevated, the $\delta^{13}\text{C}$ gelatin value for Wilson-Leonard I is within the expected range of Central Texas hunter-gatherers. Since $\delta^{13}\text{C}$ gelatin reflects the dietary protein source, particularly in low protein diets, the gelatin signature (s) indicate that the Wilson Leonard population was consuming herbivores with a C_3 grass and plant diet and/or C_3 nuts high in protein. The low gelatin value(s) suggest that C_4 grasses, cacti, and other CAM plants such as the prickly pear common in Central Texas, contributed little to the diet of those buried at the Wilson-Leonard site. The $\delta^{13}\text{C}$ gelatin values confirm a lack of herbivores that consumed C_4 grasses that dominate the nearby upland prairies. Likely protein sources in the area include white-tailed deer, eastern cottontail, and nuts, particularly acorns, pecans, and black walnuts. Deer and acorns have low $\delta^{13}\text{C}$ gelatin values (Huebner and Boutton 1992).

Due to poor preservation, $\delta^{15}\text{N}$ gelatin was not recovered.

FIGURE 32-1. Stable isotope data from Wilson-Leonard I and II compared with other values from Central Texas hunter-gatherers. Values are presented with permission from an unpublished database (Jeffery Huebner, personal communication, 1995). Values from the 41WM230 site are means from 12 individuals sampled.

ered. It was therefore not possible to confirm the origin of protein in the diet of the Wilson-Leonard skeletons using nitrogen isotopes.

Apatite values support the interpretation that C_4 grasses and CAM plants contributed little to the Wilson-Leonard diet. Reflective of carbohydrate and fat sources, the $\delta^{13}\text{C}$ apatite values indicate exploitation of a food chain with a C_3 plant origin. A diet rich in seeds and nuts would provide a likely C_3 carbohydrate and fat source. Of the three common varieties of nuts, black walnuts are higher in protein than most meats, including deer and rabbit, but also higher in fat and carbohydrates than meat sources (Agricultural Research Service 1981). Pecans, on the other hand, are low in protein, very high in fats and carbohydrates (Agricultural Research Service 1981). Acorns are a poorer quality food item, but were likely a more reliable fall crop. Acorns have similar amounts of carbohydrates, fats, and protein, but provide more carbohydrates and fat than protein (Agricultural Research Service 1981). The $\delta^{13}\text{C}$ apatite values for Wilson-Leonard I and II are consistent with those reported from other Central Texas populations (see Figure 32-1). Apatite

values reflect primarily the carbohydrate and fat dietary derivation of low protein diets, while apatite values reflect the dietary whole in higher protein diets. The relative amount of protein in the diet is determined by the difference in $\delta^{13}\text{C}$

apatite and collagen values. High difference values, as those seen in the Wilson-Leonard samples, reflect a low protein diet common to many hunter-gatherer populations and those depicted in Figure 32-1.

CHAPTER 33

VERTEBRATE FAUNAL REMAINS FROM THE 1/4-INCH AND 1/8-INCH SCREENS

by Barry W. Baker

INTRODUCTION

The vertebrate faunal remains from Wilson-Leonard presented here were recovered by 1/4-inch and 1/8-inch mesh sampling and provide an opportunity to gain insight into animal use by prehistoric peoples in Central Texas throughout the past 11,000 years. These results provide a base line for understanding the faunal component of prehistoric diet at this long-term, deeply buried, multicomponent site. Topics addressed here include an overview of the sample, a review of previous Central Texas faunal studies, a discussion of research methods, taphonomy, and a subsistence analysis of the sample. Taxa descriptions are presented in Appendix 8. The raw faunal data from the 1/4-inch and 1/8-inch samples are presented in Appendix 10.

The Wilson-Leonard Site and Its Fauna

Although the Wilson-Leonard faunal sample is degraded and highly fragmented, it represents one of the best preserved, long-term late Pleistocene through Holocene sequences from a Central Texas archeological site. Faunal remains were recovered from the TxDOT excavations with 1/4-inch screens from throughout 4.5 m of deposits, representing Paleoindian through Late Prehistoric time periods.

The TARL excavations at the site revealed that bedrock lay 6 m below ground surface, roughly 2 m below the depth of the previous excavations. Sparse cultural materials were found almost down to bedrock. These later TARL excavations yielded additional faunal samples from both 1/8-inch and fine-screen recovery. The 1/4-inch sample from the TxDOT excavations and the 1/8-inch sample from the TARL excavations are analyzed here. Additional faunal samples from the site are presented elsewhere in this volume (see Chapters 35-37, Appendix 8).

Uniqueness of the Wilson-Leonard Sample

Unlike the Wilson-Leonard sample, a majority of faunal assemblages from Central Texas have been recovered from cave and rockshelter deposits (Graham 1987:31). While rockshelter and cave settings often protect bone assemblages from alternation of wet and dry cycles, a major factor in bone degradation, these assemblages are often difficult to interpret. Numerous predators, in addition to humans, may inhabit caves and rockshelters, contributing bones or modifying the human-deposited assemblage (Andrews 1990; Brain 1981; McGuire 1980; Steele et al. 1984). In such cases, it is difficult to identify that portion of the assemblage created or modified by humans.

The Wilson-Leonard site, in contrast, reflects an open setting. Although faunal assemblages from open sites are not exempt from taphonomic problems, zooarcheologists generally have greater faith that assemblages from open sites more clearly reflect the use of animals as a human resource (cf. Grayson 1983, 1991; Lyman 1988). Nonhuman taphonomic factors potentially affecting open sites include water transport of bones, commensal animals living and dying at a site, and postoccupation intrusion into a site by burrowing animals. The long time depth, comparatively well-preserved fauna, and open nature of the Wilson-Leonard site is rare for the Central Texas area, and these factors allow for greater control of the taphonomic variables that typically plague cave and rockshelter deposits.

The long-term archeological record at the site is particularly significant. Relatively few sites in Central Texas have yielded faunal assemblages for Paleoindian and Early Archaic time periods (Baker 1992; Baker and Steele 1992; Redder 1985) (Table 33-1). Most of the known archeological sites in the region have produced faunal assemblages reflecting only Late Archaic or Late Prehistoric time periods.

TABLE 33-1

Selected Central Texas Archeological Sites or Site Complexes with Vertebrate Faunal Remains

Time Period/Site	No.	No. of Taxa	County	Reference
Paleoindian:				
Richard Beene (41BX831)	25	6	Bexar	Baker and Steele (1992)
Horn Shelter (41BQ46)	?	>5	Bosque	Forrester (1985); Redder (1985)
Duewall-Newberry (41BZ76)	43	1	Brazos	Carlson and Steele (1992); Carlson et al. (1984); Steele (1990); Steele and Carlson (1984, 1989a, 1989b)
Levi site (41TV49)	>114	21	Travis	Alexander (1963)
Archaic Indeterminate				
Horn Shelter (41BQ46)	?	>6	Bosque	Forrester (1985); Redder (1985)
Several north-central Texas sites	?	1	Bosque, Hill, Johnson	Forrester (1965)
Greenhaw (41HY29)	?	4	Hays	Weir (1979:41-43)
John Ischy (41WM49)	>217	7	Williamson	Witter (1969)
Early Archaic				
Panther Springs Creek (41BX228)	42	9	Bexar	Black and McGraw (1985:274)
Richard Beene (41BX831)	ca. 4,800	14	Bexar	Baker (1992); Baker and Steele (1992)
Sleeper site (41BC65)	17	4	Blanco	Johnson (1991:59-60)
Middle Archaic				
Panther Springs Creek (41BX228)	67	7	Bexar	Black and McGraw (1985:278-280)
Richard Beene (41BX831)	229	2	Bexar	Baker (1992); Baker and Steele (1992)
Bear Creek Shelter (41HI17)	236	23	Hill	Murry (1978)
McDonald site (41HI105)	653	7	Hill	Brown (1987, 1989)
41ML141	7	2	McLennan	Yates (1985:316)
Middle Archaic/Late Archaic Indeterminate				
41FT200	24	7	Freestone	McGregor and Bruseth (1987:69)
41NV96	10	1	Navarro	McGregor and Bruseth (1987:77-78)
Late Archaic				
Richard Beene (41BX831)	1,798	9	Bexar	Baker and Steele (1992)
Panther Springs Creek (41BX228)	?	7	Bexar	Black and McGraw (1985:281)
Hog Creek Reservoir sites (tools)	-	-	Bosque, Coryell	Harrell (1983)
Bird Point Island (41FT201)	ca. 225	21	Freestone	Murry (1987a)
41FT199	ca. 45	2	Freestone	McGregor and Bruseth (1987:56)
Bear Creek Shelter (41HI17)	206	20	Hill	Lynott (1980:230-233); Murry (1978)
McDonald site (41HI105)	12,560	11	Hill	Brown (1987, 1989)
41ML162	37	7	McLennan	Yates (1985:317-318)
Adams Ranch site (41NV177)	ca. 300	22	Navarro	Murry (1987b)
Hopewell School site (41SV30)	ca. 500	13	Somervell	Butler (1976:76)
41SU2	?	4	Sutton	Jarvis and Crawford (1974:25)
41TG91	391	21	Tom Green	Scott (1990); Scott and Creel (1990:173-176)
Cherry Tree Shelter (41TV933)	?	?	Travis	Kotter (1985:152)
Archaic/Late Prehistoric Indeterminate				
Panther Springs Creek (41BX228)	?	11	Bexar	Black and McGraw (1985:283-284)
41BU16	ca. 1,000	12	Burleson	Hunter (1987)
Several north-central Texas sites	?	21	Freestone, Navarro	McGregor and Bruseth (1987:23-24, 42-46, 94-95, 119-120, 144-145, 156-158, 164)
Bear Creek Shelter (41HI17)	ca. 400	22	Hill	Lynott (1980:230-233); Murry (1978)
Bering Sinkhole (41KR241)	ca. 350	6	Kerr	Bement (1991:59-81, 97-104, 187-200)
41ML13 and 41ML150	17	3	McLennan	Yates (1985:316)
Jetta Court (41TV151)	119	12	Travis	Wesolowsky et al. (1976:81)
Smith Rockshelter	?	12	Travis	Suhm (1957:53-54)
Kenyon Rockshelter (41TV742)	2,216	11	Travis	Coffman (1986:391)
Loeve-Fox (41WM230)	163	24	Williamson	McDonald (1974)
41WM130	>4,000	14	Williamson	Bond (1978:198-208, 231-234)
41WM312	ca. 15	3	Williamson	Voellinger and Gearhart (1987:195-203)

Table 33-1, *continued*

Time Period/Site	No.	No. of Taxa	County	Reference
Late Prehistoric				
41BL670	347	5	Bell	Sanchez and Shaffer (1993a)
41BL671	3,263	19	Bell	Sanchez and Shaffer (1993a)
41BL495	157	7	Bell	Sanchez and Shaffer (1993b)
41BL496	56	5	Bell	Sanchez and Shaffer (1993b)
41BL497	359	8	Bell	Sanchez and Shaffer (1993b)
Richard Beene (41BX831)	40	3	Bexar	Baker and Steele (1992)
Horn Shelter (41BQ46)	?	>8	Bosque	Forrester (1985:34)
Hog Creek Reservoir sites (tools)	-	-	Bosque, Coryell	Harrell (1983)
Several north-central Texas sites	?	3	Bosque, Hill Johnson	Forrester (1965)
Panther Springs Creek (41BX228)	?	11	Bexar	Black and McGraw (1985:286-287)
Bird Point Island (41FT201)	ca. 300	22	Freestone	Murry (1987a)
Kyle site	1,192	17	Hill	Lundelius (1962)
McDonald site (41HI105)	4,399	11	Hill	Brown (1987, 1989)
Pictograph Shelter	?	16	Hill	Stephenson (1970:141-143, 149)
Bear Creek Shelter (41HI17)	ca. 1,500	34	Hill	Lynott (1980:230-233); Murry (1978)
41ML161	24	2	McLennan	Yates (1985:317)
Adams Ranch (41NV177)	>342	20	Navarro	Murry (1987b)
41RN169	?	3	Runnels	Griffitts (1992)
41TG91	ca. 10,000	31	Tom Green	Scott (1990); Scott and Creel (1990)
Cherry Tree Shelter (41TV933)	?	?	Travis	Kotter (1985:152)

ENVIRONMENTAL SETTING

Ecologically, the Wilson-Leonard site falls within Blair's (1950:112-115) Balconian biotic province. Balconian vertebrate faunas are composed of a variety of taxa from surrounding regions including the Chihuahuan, Kansan, Tamaulipan, and Texan biotic provinces (Blair 1950:112; Gehlbach 1991). Graham (1987:26) stated that none of the vertebrate fauna of the Balconian province is endemic, though Toomey (1989:3) noted that of roughly 405 terrestrial vertebrates occurring on the Edwards Plateau, 7 salamander species are restricted to the area. Neck (1986:39) reported 5 endemic salamanders and 1 endemic frog. Gehlbach (1991) and Neck (1986) stressed the interaction of the Balcones Escarpment and differing plant communities of evergreen woodlands, tallgrass prairies, and deciduous forests in shaping the biographic distribution of Central Texas vertebrates. Reviews of the modern vertebrate fauna of the area and Texas in general can be found in Bryan et al. (1984), Davis (1978), Dixon (1987), Gehlbach (1991), Hubbs et al. (1991), Jones (1993), Jones and Jones (1992), Owen and Dixon (1989), Peterson (1960), Schmidly (1977, 1983, 1991), Tennant (1985), and Ward et al. (1990).

OBJECTIVES

The study of animal remains from archeological sites is termed zooarcheology (Olsen and Olsen 1981). Zooarcheologists are interested in a broad range of topics including taphonomy, human subsistence, paleoenvironmental reconstruction, and animal biology (Reitz

1987; Steele 1989). Rather than emphasizing paleoenvironmental reconstruction, the focus of this analysis is on taphonomy and subsistence, the often-neglected topics of Central Texas faunal studies.

Taphonomic Analysis

Much attention has been focused in recent years on understanding how archeological faunal assemblages are accumulated and preserved (Behrensmeyer and Hill 1980; Binford 1981; Binford and Bertram 1977; Gifford 1981; Koch 1989; Lyman 1984; Shipman 1981). The study of the factors shaping the composition of a faunal assemblage in its transition from the biosphere to the lithosphere is termed taphonomy (Efremov 1940).

Animals pass through numerous stages in their transition from a living biotic community of animals to a sampled fossil assemblage collected for analysis (Gifford 1981; Klein and Cruz-Urbe 1984:3-10). During each of these stages, bones may be added to the sample, removed from the sample, or modified by a myriad of biological and nonbiological forces. Each modification of the assemblage, in turn, makes it more difficult to reconstruct the exact nature of the assemblage that was created and deposited by humans.

Subsistence Analysis

The term "subsistence" is typically used to refer to a general lifeway including the collecting, processing, and consumption of food items (Lyman 1982a). More narrowly, subsistence reconstruction attempts to identify the exact

nature of what was consumed, that is, the past diet. The objective of this section is to evaluate the role of animals in human subsistence at the Wilson-Leonard site. Emphasis is placed on (1) identifying taxa that potentially contributed to the diet of the site's occupants; (2) reconstructing prehistoric human hunting patterns represented at the Wilson-Leonard site; and (3) identifying how the animal remains were processed and modified by humans.

The primary step in subsistence analysis and diet reconstruction is taxa identification and quantification. Included in this section are discussions of the taxa identified from the site and their relative frequencies. The reconstruction of human hunting patterns focuses on several issues. What taxa appear to have contributed significantly to the diet or were commonly hunted? What habitats were used to procure animal food resources? Were animals of a certain age preferentially harvested? Finally, during what seasons were certain animals hunted? In addressing animal processing, emphasis is placed on butchery reconstruction and marrow and grease production (Binford 1981:87-181; Lintz 1976:87-88; Lyman 1987; Peale 1978; Vehik 1977).

Paleoindian and Archaic Lifeways

A third objective of this study is a comparison of Paleoindian and Archaic faunas from the site. The sample is examined to determine if differences are evident between the Paleoindian and Archaic periods. Bison material from the site is also discussed and summarized.

PREVIOUS CENTRAL TEXAS FAUNAL STUDIES

The present status of Quaternary faunal studies in Central Texas can be viewed from two broad perspectives: paleontological and archeological. The first centers on assemblages analyzed by paleontologists and biologists with a paleoenvironmental focus. The second perspective is primarily archeological, with emphasis on human diet and animal use. Many of the paleontological assemblages are from noncultural cave or rockshelter deposits and have yielded significant paleoenvironmental vertebrate data for the Quaternary of Central Texas (Dalquest et al. 1969; Evans 1961; Fox et al. 1992; Graham 1976a, 1976b, 1976c, 1984, 1987; Graham and Mead 1987; Hafner 1993; Haynes 1992; Hill 1971; Holman 1966; Holman and Winkler 1987; Hulbert 1979, 1984; Lundelius 1960, 1967, 1974, 1985, 1986, 1992a, 1992b; Lundelius et al. 1983; Marean and Ehrhardt 1995; Martin 1968; Meade 1961; Milstead 1956; Patton 1962, 1963; Pettus 1956; Roth 1972; Semken 1961; Toomey 1989, 1991, 1993; Toomey et al. 1993; Wilkins 1992; Wright and Lundelius 1963). These studies are excellent sources of information on vertebrate systematics, biogeography, and Central Texas paleoenvironments. Authors such as Graham (1987), Lundelius (1967), Toomey (1989), and Wilkins (1992) provide reviews of site locations for Cen-

tral Texas paleontological and zooarcheological assemblages.

A second faunal data set for the region comes from archeologically excavated sites, primarily of Holocene, and less frequently, late Pleistocene age (Baker 1992, 1993a, 1993b, 1994, 1996, 1997; Baker and Steele 1992; Bement 1991:59-81, 97-104, 187-200, 1994:43-60; Bond 1978:198-208, 231-234; Brown 1987, 1989; Butler 1976; Carlson and Steele 1992; Carlson et al. 1984; Coffman 1986; Forrester 1965, 1985; Griffiths 1992; Hall 1989; Harrell 1983; Highley 1985; Holman 1966; House 1978; Huebner 1991; Hulbert 1985; Hunter 1987; Jarvis and Crawford 1974; Johnson 1991:59-60; Kotter 1985; Lundelius 1962; Lynott 1979, 1980:230-233; Martin 1987; Masson and Holderby 1994; McDonald 1974; McGraw 1985; Murry 1978, 1982, 1987a, 1987b; Redder 1985; Ricklis 1992; Sanchez and Shaffer 1993a, 1993b; Scott 1990; Scott and Creel 1990; Shaffer 1994, 1995; Sorrow et al. 1967:118-122; Steele 1990; Steele and Carlson 1984, 1989a, 1989b; Stephenson 1970:141-157; Voellinger and Gearhart 1987:195-203; Wesolowsky et al. 1976:75-82; Winkler n.d., 1990; Witter 1969; Yates 1982, 1985). Central Texas archeofaunal assemblages (see Table 33-1) are typically from open sites, are comparatively poorly preserved (Black 1989:33), and have been analyzed by a broad range of archeologists, paleontologists, and zooarcheologists. In addition, the majority have been recovered with 1/4-inch mesh screens, which biases these assemblages against systematic recovery of smaller vertebrates (Casteel 1972; DeMarcey and Steele 1986; Gordon 1993; Payne 1972, 1975; Shaffer 1992; Shaffer and Sanchez 1994; Wing and Quitmyer 1985). These sites have yielded a wide range of taxa, though deer (*Odocoileus*) is most commonly reported (Black 1989:33); there has been varying coverage on issues of taphonomy, subsistence, and paleoecology in the archeological literature (House 1978).

The geographic and biological diversity of the Central Texas area provided a wide variety of resources available for exploitation by prehistoric people. Grassland, forest, and aquatic species of plants and animals were probably all important dietary items. Continued research is required to determine the relative importance of these species and to identify temporal and geographic variation in resource exploitation during Central Texas prehistory, though the Wilson-Leonard sample contributes greatly to these questions.

Little is known of prehistoric subsistence patterns in the region for two major reasons. First, relatively little substantive research has been conducted on this topic. Second, organic preservation in open sites in Central Texas is typically poor (Black 1989:18, 33). High soil pH and high EH (oxidation) often cause rapid destruction of pollen and other plant remains in the area. The general picture reflected by the Central Texas faunal studies is one in which deer (*Odocoileus*) dominate in terms of minimum number of individuals (MNI), number of identified specimens (NISP), and meat weight. As Black (1989:33-34) notes, this may in part be due to preservation factors and recovery methods,

though it is unlikely future research will drastically alter this view.

Marrow and grease processing was probably also an important aspect of deer exploitation, though few studies of marrow and grease processing activities have been conducted on Central Texas assemblages (Masson and Holderby 1994). In addition to deer, taxa identified from Central Texas archeofaunal assemblages include species that inhabit aquatic environments, grassland regions, forested areas, arboreal habitats, and subterranean habitats. All of the taxa represent potential food sources. Assuming these animals accumulated from human activity, the prehistoric peoples of Central Texas exploited a variety of habitats that were easily accessible through diverse local environments and bordering biotic provinces. The range of taxa and prey behaviors represented suggests that numerous hunting, gathering, trapping, and fishing techniques were used to procure animals.

Bison Studies

One zooarcheological issue that has received continued attention in Central Texas is the question of bison availability, migration, and population fluctuation throughout the Quaternary on the southern plains (Baugh 1986; Creel 1991; Creel et al. 1990; Dillehay 1974; Flynn 1982; Huebner 1991; Hughes 1977; Lynott 1979; Patterson 1992; Scott and Creel 1990). Bison receive wide attention by archeologists because of their influence on human subsistence, technology, mobility, and social organization. Dillehay (1974) initiated much of this regional interest by postulating alternating intervals of bison presence and absence on the southern plains throughout the late Pleistocene and Holocene. Based on faunal data from archeological and paleontological sites, Dillehay (1974) proposed the following bison presence/absence sequence:

Presence Period I - 10,000 to 6,000-5,000 B.C.
 Absence Period I - 6,000-5,000 to 2,500 B.C.
 Presence Period II - 2,500 B.C. to A.D. 500
 Absence Period II - A.D. 500 to 1,200-1,300
 Presence Period III - A.D. 1,200-1,300 to 1550

Lynott (1979) critiqued Dillehay's model and felt minimally it was not applicable to north-central Texas. The model was viewed as weak because it ignored the ecological variability of the southern plains, and because bison bone tools (which could be traded from other areas) were included along with scrap bones by Dillehay as evidence of bison presence. While Lynott (1979) viewed bison population densities increasing after 800 B.P. (A.D. 1200) in north-central Texas, he felt Dillehay's Absence Periods I and II were actually periods of low bison density rather than bison absence.

Flynn (1982) reviewed Dillehay's (1974) periods of Presence I and Absence I and notes that a total "Absence"

period was falsified, though the general model was tentatively accepted (Flynn 1982:21). Central and western Oklahoma were used by Baugh (1986) also to test Dillehay's model. She notes the presence of bison in this region for Dillehay's Absence Period II and questions the usefulness of the model. Huebner (1991) later tested the Late Prehistoric interval of Dillehay's (1974) presence/absence periods and argues that Absence Period II and Presence Period III were confirmed. Huebner (1991) relates increased bison availability after ca. 1000 B.P. (ca. A.D. 950) to increased xeric conditions on the southern plains which allowed bison to expand in this area. Based on site distribution, Huebner (1991) suggests that bison herds moved through Central Texas into south Texas through a "bison corridor" between the Brazos and Colorado rivers.

Patterson (1992) reviewed bison data from southeast Texas and shows that at least some bison were present in all time periods from the Late Paleoindian through the Late Prehistoric. He suggests it is presently impossible to reconstruct migration routes from the available data (Patterson 1992). Creel et al. (1990) propose using the phrases "high frequency period" and "low frequency period" rather than Dillehay's terms "presence" and "absence" to denote temporal bison population density fluctuations. From site 41TG91 in west-central Texas, Creel et al. (1990) report bison from strata aged to 600 B.C. to A.D. 900. Bison appeared to be absent or infrequent from ca. A.D. 900-1300. From A.D. 1300 bison were present in large numbers until the late 1800s when their populations were decimated through mass killing by humans.

Summary

One of the major problems limiting a detailed synthesis of zooarcheological data from Central Texas has been that, until the last decade, Central Texas faunal assemblages received relatively little attention (House 1978). This includes a lack of problem orientation. In addition, many early faunal assemblages were treated as single aggregation units, with little regard to site stratigraphy or chronological context. For many sites, little can be said of temporal change in faunal exploitation, since these remains were analyzed and presented as though they were contemporaneous. Exceptions to this include studies by Baker and Steele (1992), Brown (1987, 1989), Creel et al. (1990), Kotter (1985), Masson and Holderby (1994), Murry (1978, 1987a, 1987b), Scott and Creel (1990), and Yates (1982), who include detailed chronological information in their discussions of Central Texas fauna.

Problem-oriented research is also needed to bring these data to the attention of archeologists outside of Texas. Work by Creel and Scott at site 41TG91 in west-central Texas provides an excellent example of bringing Central Texas faunal data to the attention of a broader archeological audience (Creel 1991; Creel et al. 1990; Scott 1990; Scott and Creel 1990).

Though little formal synthesis of Central Texas archeofaunal studies has been conducted, a general pattern does emerge. Prehistoric inhabitants of the area apparently exploited a diverse range of habitats and taxa of varying size, reflecting a generalized subsistence strategy. In addition to deer, smaller vertebrates of grassland and forest habitats were exploited. Aquatic vertebrates such as fish and turtles also played a role. Only within the past 15 years or so have Central Texas archeologists begun to more fully address these zooarcheological variables.

METHODS

Research methods employed in the analysis are described here, including archeological recovery methods, cleaning and conservation, sample selection, faunal identification, data recording and manipulation, and quantification. A review of methods is vital to understanding potential biases that can influence bone counts, taxa representation, and subsequent human subsistence interpretations.

Recovery Methods

Faunal remains from the TxDOT excavations were recovered from six excavation blocks at the Wilson-Leonard site. Forty 2-x-2-m squares were excavated to various depths up to 5 m, using arbitrary 5-cm and 10-cm levels. Sediment matrix was dry screened through 1/4-inch-mesh hardware cloth, with the recovered fauna forming the sample for this analysis. One fine-screen 2-x-2-m square (E28/S78) was excavated in 10-cm intervals to a depth of 4.5 m. Using nested 1/4-inch and 1/16-inch screens, material from this unit was water screened in the field. The 1/4-inch faunal material from this fine-screen unit is included in this analysis. The 1/16-inch screened vertebrate sample from one of the 1-x-1-m quads in this square has been previously analyzed and reported (Winkler n.d., 1990).

The more-recent TARL excavations proceeded with smaller 1/8-inch screens to help control for sampling biases at the site. In addition, matrix from two fine-screen squares and some feature contexts was processed in a flotation/matrix separation device at the Vertebrate Paleontology Laboratory, The University of Texas at Austin (see Chapters 34, 35, Appendix 8).

Cleaning and Conservation of Faunal Remains

The 1/4-inch faunal sample was sorted by lot number by TxDOT and submitted to the Zooarcheological Research Laboratory, Department of Anthropology, Texas A&M University where it was washed and analyzed. The 1/8-inch sample was washed and sorted by TARL personnel. Many of the bison bones from the lower deposits (1/4-inch sample) were stabilized and conserved by the Vertebrate Paleontology Laboratory, The University of Texas at Austin. Several

of the bison bones were jacketed following standard paleontological techniques to reduce breakage in the field. These bones were cleaned with ethanol and variously conserved with gelva, and polyvinyl acetate (PVA). Individual specimen numbers were not assigned, and the sample was recorded by archeological lot number.

Sample Selection

The analyzed faunal sample consists of all 1/4-inch remains recovered from the 1982-1984 (TxDOT) excavations at the site, with the exception of a shark tooth and rodent mandible recovered from the Paleoindian burial (Burial 2). The other vertebrates recovered from these early excavations include the 1/16-inch sample analyzed by Winkler (n.d., 1990), and the three unsorted and unstudied quads (1/16-inch fraction) from the TxDOT fine-screened square. The 1/8-inch faunas from the more-recent TARL excavations are also included in this analysis. Vertebrates discussed here were recovered from all stratigraphic units at the site. A summary of specimen counts by cultural period and associated stratigraphic unit are presented in Tables 33-2 and 33-3.

Faunal Identification

Identification of the faunal remains was aided by the use of the Zooarcheological Research Collection (Department of Anthropology) and the Texas Cooperative Wildlife Collection (TCWC) (Department of Wildlife and Fisheries Sciences) at Texas A&M University. Comparative bison material at The Brazos Valley Museum of Natural History (College Station, Texas) was also referenced. The presence of fossil horse at the Wilson-Leonard site was verified by the Vertebrate Paleontology Laboratory, The University of Texas at Austin.

Specimens were identified as precisely as possible based on structural features and possible animals present in the area. Identification guides used include Auffenberg (1969), Balkwill and Cumbaa (1992), Ford (1990), Gilbert (1980), Gilbert et al. (1985), Hillson (1986), Lawrence (1951), Olsen (1968), Schmid (1972), and an early draft copy of Sobolik and Steele (1996).

Data Recording and Manipulation

Specimens were coded using a vertebrate faunal analysis coding system developed by Shaffer and Baker (1992). Data were entered into a dBASE (III+) file for error checking, manipulation, and table generation (Carlson and Shaffer 1992). The following information was recorded for each specimen in the 1/4-inch sample where applicable: lot number, quantity, taxon, element, portion of element, side, age, age criteria, sex, sex criteria, degree of weathering, breakage pattern, burning, gnawing, cut marks, and other forms of cultural modification. The 1/8-inch sample was analyzed for the

TABLE 33-2
Faunal Recovery from 1/4-inch Screens by Cultural Period and Stratigraphic Unit

Cultural Period	Stratigraphic Unit	Totals
Unassigned	Unknown	214
Paleoindian	X/Isi	10
Paleoindian	Isi/Isi-c	148
Paleoindian	Icl/Isi-c	373
Paleoindian	Isi/Icl/Isi-c	203
Paleoindian	I	209
Paleoindian	Isi/Icl	14
Early Paleoindian	Icl	236
Early Paleoindian	Icl/D	21
Early Paleoindian	Isi/Icl/D	64
Early Paleoindian	Isi/Icl	1,782
Early Paleoindian	Igl/Isi/Icl	9
Early Paleoindian	Isi	512
Early Paleoindian	Isi/D	17
Early Paleoindian	Isi/D?	37
Early Paleoindian	Igl/Isi	1,115
Early Paleoindian	Igl	12
Late Paleoindian	II	1,542
Late Paleoindian	Id/II	391
Late Paleoindian	I/II	42
Late Paleoindian	Id	9
Late Paleoindian	Isi-c/II	293
Late Paleoindian	Isi-c/Id/II	282
Late Paleoindian	Isi-c/Id	521
Late Paleoindian	Isi-c	1,847
Late Paleoindian	Isi/Isi-c	5
Late Paleoindian	X	33
Late Paleoindian	X/II	65
Late Paleoindian	X/Id/II	3
Late Paleoindian	X/Isi-c/Id	3
Late Paleoindian	X/Isi-c/Id/II	14
Late Paleoindian/Early Archaic	IIIa	17
Late Paleoindian/Early Archaic	II/IIIa	585
Late Paleoindian/Early Archaic	II/III	1
Late Paleoindian/Early Archaic	X	139
Late Paleoindian/Early Archaic	X/II	26
Archaic	IIIc/POT	25
Archaic	IIIc	41
Archaic	IIIb/c	9
Archaic	III	9
Archaic	Y/IIIc	41
Archaic	Y/IIIb/c	25
Archaic	Y	3
Early Archaic	IIIb	248
Early Archaic	IIIa/b	196
Early Archaic	IIIa	752
Early Archaic	III	77
Early Archaic	II/IIIa	14
Early Archaic	Y/IIIc	1
Early Archaic	Y/IIIb	33
Early Archaic	Y	50
Early Archaic	X/Y/IIIb	49
Early Archaic	X/IIIb	42
Early Archaic	X/Y	80
Early Archaic	X/IIIa/b	10
Early Archaic	X/IIIa	29

Table 33-2, *continued*

Cultural Period	Stratigraphic Unit	Totals
Early Archaic	X/II/IIIa	55
Early Archaic	X	109
Early Archaic	X/II	19
Early/Middle Archaic	IIIc	43
Early/Middle Archaic	IIIb/c	433
Early/Middle Archaic	IIIb	224
Early/Middle Archaic	IIIa/b	9
Early/Middle Archaic	III	13
Early/Middle Archaic	Y/IIIc	69
Early/Middle Archaic	Y/IIIb/c	3
Middle Archaic	IIIc	172
Middle Archaic	IIIb/c	399
Middle Archaic	IIIb	32
Middle Archaic	III	44
Middle/Late Archaic	IIIc	727
Middle/Late Archaic	IIIb/c	181
Middle/Late Archaic	Y/IIIc	5
Late Archaic	IIIc	3,337
Late Archaic	Unknown	20
Archaic/Late Prehistoric	IIIc/POT	748
Late Archaic/Late Prehistoric	IIIc	1,854
Late Archaic/Late Prehistoric	Unknown	16
Late Prehistoric	IIIc	805
Late Prehistoric	Unknown	22
Total:		21,867

same variables except weathering. The small size of these specimens made an assessment of weathering impractical.

Broken bones that could be fitted together were coded as one specimen. All of these were angular breaks. No spirally fractured bones could be refitted. Terminology for premolars followed a paleontological style of designating the last premolar in a sequence as P4. Although Purdue (1983b, 1986, 1987, 1989, 1991) used bone measurements to address questions of body-size changes in deer throughout the Archaic of the eastern United States, the mixed nature of many of the Middle Archaic, Late Archaic, and Late Prehistoric deposits at the Wilson-Leonard site makes it doubtful that research along these lines would prove insightful.

Quantification

In recent years, numerous methods of quantifying animal and element abundance from archeological sites have been used (Grayson 1984; Lyman 1994; Reitz 1987; Ringrose 1993, and references therein). Number of Identified Specimens (NISP) and Minimum Number of Individual (MNI) counts are most common methods used to address taxonomic abundance. Recently, Marshall and Pilgram (1993) argued that MNI may be less representative of relative element frequency than NISP in highly fragmented assemblages (such as the Wilson-Leonard sample). The mixed and highly fragmented nature of the Wilson-Leonard sample makes it

unlikely that a detailed analysis by MNI would prove accurate, thus NISP counts are emphasized here.

Other quantification measures commonly used by zooarcheologists include Minimum Number of Elements (MNE), and Minimum Animal Units (MAU). The development of these measuring units stemmed from observations by Binford (1978, 1981) and others that people do not necessarily use entire carcasses of single animals, but rather segments of animals (e.g., hindquarters, forequarters, etc.). Thus, culturally selected units of animals may become deposited at a site, rather than entire animal carcasses. Knowing how many and what types of various animal units are represented in a site, then, may provide insight into cultural processes that are not provided by NISP or MNI. Though again, the highly fragmented, degraded, and often mixed nature of the Wilson-Leonard sample makes research along these lines less useful (see Grayson 1984:88-90 for a critique of these methods).

TAPHONOMIC ANALYSIS

Taphonomy

Before any attempt is made to interpret human subsistence from a faunal assemblage, it is important to understand the forces that may have acted on that assemblage through time. Such information is necessary to ensure that possible biases associated with the data set have been

TABLE 33-3
Faunal Recovery from 1/8-inch Screens by Cultural Period and Stratigraphic Unit

Period	Stratigraphic Unit	Totals
Unassigned	Unknown	47
Unassigned	FILL	5
Unassigned	IIIb/c/FILL	123
Unassigned	IIIc/FILL	180
Paleoindian	Icl/Isi-c	528
Paleoindian	Isi/Icl/Isi-c	168
Paleoindian	Isi/Isi-c	1,366
Paleoindian	X	3
Early Paleoindian	Icl	269
Early Paleoindian	Igl	32
Early Paleoindian	Igl/Icl	35
Early Paleoindian	Igl/Isi	101
Early Paleoindian	Igl/Isi/Icl	134
Early Paleoindian	Isi	441
Early Paleoindian	Isi/Icl	858
Late Paleoindian	II	4,560
Late Paleoindian	Id	194
Late Paleoindian	Id/II	790
Late Paleoindian	Isi-c	1,521
Late Paleoindian	Isi-c/II	411
Late Paleoindian	Isi-c/Id	1,138
Late Paleoindian	Isi-c/Id/II	55
Late Paleoindian/Early Archaic	II	33
Late Paleoindian/Early Archaic	II/IIIa	3,148
Late Paleoindian/Early Archaic	X	29
Archaic	IIIc	236
Archaic	Y/IIIc	93
Early Archaic	Unknown	1
Early Archaic	IIIa	3,587
Early Archaic	IIIa/b	739
Early Archaic	X	69
Early Archaic	Y	369
Early/Middle Archaic	IIIa/b	664
Early/Middle Archaic	IIIb	512
Middle Archaic	IIIa/b	157
Middle Archaic	IIIb	3,173
Middle Archaic	IIIb/c	610
Middle/Late Archaic	IIIb	682
Middle/Late Archaic	IIIb/c	1,764
Middle/Late Archaic	IIIb/c/FILL	86
Middle/Late Archaic	IIIc	410
Late Archaic	IIIb/c	1,426
Late Archaic	IIIc	4,719
Late Archaic/Late Prehistoric	IIIc	3,152
Total:		38,618

considered before dietary conclusions are drawn. Taphonomy is that field of study that attempts to understand those forces that create and modify faunal assemblages through time (Binford 1981; Efremov 1940; Gifford 1981; Koch 1989; Shipman 1981; Steele 1989).

Klein and Cruz-Urbe (1984:3-4) provide an overview of the various stages through which bones pass in their transformation from a living community of animals to an excavated sample for study. This discussion draws primarily from

their review. Information loss occurs with each successive taphonomic stage, making it increasingly difficult to reconstruct and characterize the original sample that was exploited by humans (Grayson 1979; Lyman 1982b).

The first stage represented in this taphonomic sequence is the life assemblage. This assemblage represents the entire living community of animals present in their "natural" proportions. The second stage is the death assemblage, representing a subsample of the life assemblage as well as those

remains that are available for collection by various taphonomic agents. Examples of such agents include humans, carnivores, rodents, and hydraulic activity. The third stage in the sequence is the deposited assemblage, which constitutes those elements that "come to rest at a site" (Klein and Cruz-Urbe 1984:3). The fourth stage through which bones pass is the fossil assemblage, defined as those elements of the deposited assemblage that survive until excavation or collection. The fifth stage is the sample assemblage, referring to remains that are actually collected by the excavator.

In addition to those discussed by Klein and Cruz-Urbe (1984:3-4), two other stages must also be considered. While these are not taphonomic stages in the strict use of the term, they do reflect successive stages of information loss. The first of these is the recorded assemblage (similar to Davis 1987:22 and Gifford 1981:387). This assemblage is composed of those faunal elements that are actually identified and recorded in some manner as the first step in studying the remains. It is often impossible for the zooarcheologist to place all of the faunal remains that were initially recorded within sufficient archeological context for interpretation. Therefore, site interpretations are often made on a subsample of the recorded assemblage. The final stage is the interpreted assemblage, reflecting the actual elements from which site interpretations are made (similar to Davis 1987:22, Gifford 1981:387; Hesse and Wapnish 1985:19).

Two broad approaches can be taken in taphonomy studies (Gifford 1981:366-367). The first is based on contemporary observations used to understand how present-day forces create and modify bone assemblages. Ethnoarcheological and experimental studies are examples of this first approach. A second approach focuses on fossil assemblages to reconstruct their taphonomic histories. Insight from experimental studies is also commonly used in these studies. This second approach, an understanding to the forces that created and modified the Wilson-Leonard sample and ultimately influence any interpretation of the sample, is attempted below. The influence of the following possible taphonomic factors in structuring the Wilson-Leonard faunal assemblage are addressed: fragmentation, weathering, chemical dissolution, rootlet etching, water transport, rodent gnawing, turbation, carnivore activity, intrusive and commensal faunal association, bone density, human hunting and animal processing activities, and, finally, bone burning.

Fragmentation

The 1/4-inch Wilson-Leonard sample includes 21,867 specimens that are, overall, highly fragmented and degraded. Of these, 15,309 (70%) were small unidentifiable fragments. Only 145 (0.7%) specimens were unbroken. This extremely high degree of fragmentation limited the number of elements that could be identified. The 1/8-inch sample consists of 38,618

specimens, only 246 (0.6%) of which are unbroken. Comparable to the 1/4-inch sample, 26,253 specimens (68%) could not be identified beyond the taxonomic level Vertebrata.

Breakage patterns at the site show two forms. First, dry bone fractures (a.k.a. angular fractures) dominate the broken bone assemblage (82% of the 1/4-inch sample [$n=17,916$]; 92% of the 1/8-inch sample [$n=35,625$]) (Table 33-4). These breaks often show a stair-step fracture edge and are common on bones with reduced organic collagen content. Dry bone breakage can result from both mechanical and biological agents (Steele 1989:77). Mechanical forces may include compressive forces from sediment overburden, while biological agents can include root penetration or breakage caused by burrowing animals (Steele 1989:77). The process of archeological excavation and matrix screening can also cause a significant amount of breakage. The high number of dry fractures appears to be the result of postdepositional forces that may have included sediment compaction, turbation (see below), and excavation damage. Many of the bones are fragile and show recent dry fractures that probably occurred during excavation.

In addition to dry bone fractures, spiral fractures are also present on many specimens (17% of the 1/4-inch sample [$n=3,806$]; 2% of the 1/8-inch sample [$n=759$]) (see Table 33-4). As indicated here, spirally fractured bones are much more common in the 1/4-inch sample. In part, this is due to differences in the taxa represented in the two samples. The 1/4-inch sample is dominated by larger animals whose bones are more conducive to spiral fracturing and to marrow and grease processing. The 1/8-inch is dominated by smaller animals (see subsistence discussion).

Also known as green bone breaks, spiral fractures occur on bones that still retain a large portion of collagen when breakage occurs. Once thought to be definitive of human behavior, spiral breaks are now known to be caused by numerous forces, including carnivore chewing (Johnson 1985). The highly degraded nature of the Wilson-Leonard sample made it difficult to recognize spiral fractures in many cases. The numbers presented above probably underestimate the number of spiral fractures present in the deposited assemblage.

Interestingly, at least 2,434 (64%) of the 3,806 specimens in the 1/4-inch sample that show spiral fractures also show dry bone fractures (see Table 33-4). Of the spirally fractured bones from the 1/8-inch sample, 1,050 specimens (38%) also exhibit angular fractures. This indicates that much of the assemblage that was fragmented while the bones were relatively fresh was fragmented again much later in time when the bones lost most of their collagen. The spiral fractures in this instance probably represent human activity, since no carnivore damage was noted (see below).

Weathering

Shipman (1981:115) defined bone weathering as "damage to body parts produced by exposure to elements prior to

TABLE 33-4
Breakage Patterns by Cultural Period (Angular Only; Spiral Only; Both Angular and Spiral)

	Unbroken	Angular	Spiral	Angular and Spiral	Totals
1/4-inch Sample by Period:					
Unassigned	3	171	6	34	214
Paleoindian	1	932	2	22	957
Early Paleoindian	6	3,763	5	31	3,805
Late Paleoindian	12	4,824	22	192	5,050
Late Paleoindian/Early Archaic	2	699	3	64	768
Archaic	3	127	3	20	153
Early Archaic	11	1,456	27	270	1,764
Early/Middle Archaic	9	648	27	110	794
Middle Archaic	10	533	21	83	647
Middle/Late Archaic	17	658	73	165	913
Late Archaic	43	2,279	352	683	3,357
Archaic/Late Prehistoric	5	363	238	142	748
Late Archaic/Late Prehistoric	19	1,019	496	336	1,870
Late Prehistoric	4	444	97	282	827
Totals:	145	17,916	1,372	2,434	21,867

Spirally fractured total=3,806 (17.4% of total specimen count)

Spirally fractured Paleoindian total=274 (2.3% of total Paleoindian specimen count)

Spirally fractured Early Archaic - Late Prehistoric total=3,425 (31% of total Early Archaic - Late Prehistoric specimen count)

1/8-inch Sample by Period:					
Unassigned	1	259	3	92	355
Paleoindian	1	2,061	1	2	2,065
Early Paleoindian	1	1,864	0	5	1,870
Late Paleoindian	44	8,612	1	12	8,669
Late Paleoindian/Early Archaic	17	3,187	0	6	3,210
Archaic	5	323	0	1	329
Early Archaic	39	4,683	0	43	4,765
Early/Middle Archaic	10	1,154	1	11	1,176
Middle Archaic	49	3,797	24	70	3,940
Middle/Late Archaic	24	2,473	234	211	2,942
Late Archaic	36	4,838	969	302	6,145
Late Archaic/Late Prehistoric	19	2,374	464	295	3,152
Totals:	246	35,625	1,697	1,050	38,618

Spirally fractured total=2,747 (7.1% of total specimen count)

Spirally fractured Paleoindian total=21 (0.2% of total Paleoindian specimen count)

Spirally fractured Early Archaic - Late Prehistoric total=2,625 (11.7% of total Early Archaic - Late Prehistoric specimen count)

deposition" (by which she apparently means "burial"). While mechanical and chemical degradation continues with postdeposition (White and Hannus 1983), researchers have placed emphasis on the weathering that occurs prior to deposition because these studies provide more information about ground surface landscape, assemblage accumulation, and paleoenvironment. Behrensmeyer (1978) pioneered bone weathering studies and defined six weathering stages for bones in the Amboseli Basin of southern Kenya. These weathering stages have been widely applied to diverse environments and modified by other researchers. Lyman and Fox (1989) provide one of the most recent reviews of bone weathering.

The application of Behrensmeyer's (1978) weathering stages to the Wilson-Leonard sample, however, proved fruit-

less. Postdepositional chemical dissolution of the sample was so extensive that no examples of typical bone weathering of the type that occurs on the ground surface (such as the fine line cracking and exfoliation definitive of Behrensmeyer's stages) were consistently observable. Instead, general bone surface texture was assessed for the 1/4-inch sample and was recorded as one of two stages (heavy or light degradation). The minute size of specimens in the 1/8-inch sample made it unproductive to assess weathering on this sample.

The term heavy weathering is used here to characterize bones that show extensive surface degradation, which can result particularly from geochemical dissolution, root etching, and burning. Slight weathering was defined as showing only minimal/slight evidence of bone surface degradation,

regardless of the agent of degradation. This classification is admittedly subjective. Hindsight suggests that in cases where Behrensmeyer's classification is not applicable, a more formal and consistent approach to bone surface degradation quantification should include the recording of specific individual observable characteristics (such as exfoliation, root etching, fine cracking, etc.) on a scale of slight, to moderate, to extreme.

As with fragmentation, analysis shows that bone surfaces are highly degraded. Of the 1/4-sample, 92% ($n=20,174$) is heavily weathered as defined above. Burned bones generally show less surface degradation than unburned bones (see below). This high degree of degradation is significant in two respects. First, obliterated morphological features reduce taxa identification rates and also limit interpretations of cut mark frequency, human subsistence, and diet breadth. Because of this extensive degradation, butchering marks on this sample are also probably highly underrepresented. Second, the extensive degradation provides insight into the site formation processes that have modified the assemblage. This is discussed in the following section on chemical dissolution.

Chemical Dissolution

Chemical dissolution of bones can result from numerous factors. White and Hannus (1983:316) note that, independent of soil properties, the weathering of hydroxyapatite in bone is "probably initiated by organic and carbonic acids formed by the microbial decomposition of collagen." Soil phosphorus may also influence bone preservation and degradation. At a buried Late Prehistoric site in Kansas, Artz (1983) noted that bone preservation tended to be worse in zones of low soil phosphorus. Plant uptake of phosphorus via the root system produced zones of phosphate depletion in the soil. Artz suggested that if bones (a source of calcium phosphate) are present in these depleted zones, increased chemical degradation of the bones may occur through the leaching of phosphates out of the bone.

Biological forms of chemical dissolution and degradation are also known. Acids in plant rootlets may etch bone surfaces leaving recognizable dendritic patterns. Gastrointestinal etching can also occur if bones are digested and then passed or regurgitated by carnivores, humans, or avian predators. The previous discussion of weathering showed that bone surface degradation and chemical dissolution of the Wilson-Leonard sample was extensive. This has important implications for site formation processes at the site.

Soil pH is another important variable (Gordon and Buikstra 1981; Person et al. 1990). From several Late Woodland burial mounds, Gordon and Buikstra (1981) found that as soil acidity increases, bone destruction increases as well. Person et al. (1990) noted that acidic soils with poor bone preservation are common in tropical environments. In other

cases, bone dissolution can occur through interactions with groundwater (Hedges and Millard 1995).

Winkler (n.d., 1990) also noted degradation and dissolution in her analysis of the small vertebrate fauna from Wilson-Leonard. She reported "pitting" and "corrosion" on the teeth of cottontail rabbits, woodrats, cotton rats, and gophers, and felt these specimens may represent digestion by humans or nonhuman predators (Winkler 1990:203). Clarification of this point is vital, for Winkler's observation calls into question whether or not the small animal assemblage at the site resulted from human or nonhuman site formation processes. The high degree of burning on the small animal sample, however, suggested to Winkler that the remains may represent human food. Further, she cited human coprolite literature supporting the notion of prehistoric consumption of small animals, implying that while corrosion was noted in some cases, it was more likely the result of human than non-human digestion.

Corrosion and pitting on the 1/4-inch and 1/8-inch samples is extensive, especially on the unburned bones (as reflected in the previous discussion on bone weathering). The corrosion noted by Winkler probably was produced by the same agent that modified the samples described here. The high frequency of this corrosion, coupled with the fact that no carnivore chewing or nonhuman predator activity was identified in either the 1/4-inch or 1/8-inch sample suggests that the corrosion observed by Winkler did not result from carnivore gastrointestinal digestion but represents a broader pattern of bone dissolution at the site. Winkler's (n.d., 1990) taphonomic observations of the corroded teeth were not detailed enough to test the idea that these resulted from carnivores or owl pellets. However, other lines of evidence discussed in subsequent sections suggest that the small fauna accumulated from human behavior.

Though untested through chemistry and pH analysis, it is likely that the corrosion noted in both our analyses resulted from some form of geophysical dissolution. Possibilities include carbonic acid dissolution (cf. Andrews 1990:21; Sanchez and Shaffer 1993b), groundwater dissolution (Hedges and Millard 1995), or degradation from organic acids from oak trees or other sources in the soil. This issue deserves continued research, though it is unlikely the extensive degradation seen in many Central Texas faunal assemblages is primarily the result of gastrointestinal digestion.

Rootlet Etching

As noted above, acids in plant rootlets can degrade bones when in contact with their surfaces. Binford (1981:50, Figures 3.07 and 3.08) illustrates a classic example of rootlet etching showing an extensive, etched, dendritic pattern on the surface of a bone. Though the frequency of rootlet etching on the Wilson-Leonard sample was not quantified, a few specimens did show etching. Extensive geochemical degradation probably reduced the observation of rootlet etching.

This etching likely played only a minor role in bone degradation at the site.

Water Transport

Waterborne particle rounding of bones is commonly referred to as abrasion and can be divided into three categories: (1) unabraded, (2) moderately abraded, and (3) heavily abraded (Shipman 1981:114). While no specific evidence of water transport was noted in the samples reported here, Winkler (1990:204) observed rounding on some of her specimens from the site suggesting water transport. Water transport, however, was probably only a minor component of the taphonomic history of the sample. While Stratigraphic Unit I contained gravels indicative of high energy fluvial transport, the bones themselves provide little evidence of water sorting.

Rodent Gnawing

Rodent gnawing is another potential bone reducing agent, and extensive gnawing can provide evidence of prolonged ground surface exposure prior to site burial. In cases of heavy rodent gnawing, bone morphology and surface modification (such as cut marks) can become obliterated. Chew marks are also indirect evidence of past animal behavior. As such, they are included with ichnofossils (trace fossils) and may be considered a subsample of a faunal assemblage (Gautier 1993). Though gnawed bones represent a small percentage of both the 1/4-inch (0.6%, $n=124$) and 1/8-inch samples (0.08%, $n=32$), for some specimens gnawing represented a major bone reducing factor. Rodent gnawing usually produces numerous parallel marks perpendicular to the long axis of the bone, and may result in "windows," or holes chewed through the compact bone to expose the medullary cavity or cortical bone (Bonnichsen and Will 1980:10).

Turbation

Other factors commonly affecting the distribution and reduction of bones at archeological sites include postdepositionalurbation processes (Steele 1989:77; Wood and Johnson 1978). Faunalurbation refers to site disturbance by animals, while floralurbation refers to disturbance by plants. Both of theseurbation processes can be grouped broadly under bioturbation. Faunalurbation and floralurbation both appear to have affected the site. Evidence that faunalurbation occurred was provided by the identification of animal burrows throughout the site deposits. Rodents are especially well-known for their potential destruction of archeological sites. Evidence of floralurbation was noted at the site in the form of root molds, buried tree stumps and possible tree fall. At the level of the present faunal analysis, though, this disturbance is relatively minor.

Disturbance by prehistoric humans, on the other hand, appears to have been a significant form of site disturbance, especially in Stratigraphic Unit III. This occurred primarily during the construction and use of large burned rock ovens in the Early and Late Archaic periods. Successive construction of prehistoric cooking pits probably mixed the deposits in some areas of the site. This, coupled with a decreased sedimentation rate exacerbated the mixing of Archaic through Late Prehistoric cultural materials in the upper 1-2 m of the site deposits, especially along the Valley Margin.

Carnivore Activity

The influence of carnivores in creating and modifying bone assemblages has received wide attention among Old World faunal analysts addressing questions of early hominid behavior, though less emphasis has been placed on canid destruction in studies of North American assemblages (Binford 1981; Haynes 1982; Morey and Klippel 1991; Schmitt and Juell 1994). Carnivores may create assemblages that at first glance appear to be the result of human activity or they can modify and displace bones that were deposited by humans (Binford 1981; Haynes 1980, 1982, 1983; Morey and Klippel 1991).

In chewing bones, carnivores tend to concentrate on long-bone epiphyses, producing distinct puncture marks. Binford (1981) also identified localized pitting and scoring from carnivore chewing in his experimental studies. Spiral fractures, bone chipping, and gastrointestinal pitting may also result. Analysis of the Wilson-Leonard sample showed no specific evidence that could be isolated as carnivore modification. Pitting observed on the sample was interpreted as resulting from geochemical dissolution, though the possibility remains that multiple processes could have yielded similar taphonomic signatures. Spiral fractures occurred in the sample, though based on the absence of other potential carnivore activity, these are believed to have resulted from marrow extraction by humans (see subsistence analysis). Overall, carnivores appear to have had minimal impact on creating or modifying the assemblage.

Intrusive and Commensal Fauna

In addition to the above variables, the question of fortuitous faunal association must be considered. Intrusive fauna are commonly defined as those that enter a site after deposition, while commensal fauna might include animals that became incorporated into the assemblage through natural death while living in the site area at the time of human occupation. In addition, commensal carnivores can deposit faunal remains onto archeological sites through scats (Andrews and Evans 1983; Schmitt and Juell 1994). The limited animal burrowing noted at the Wilson-Leonard site is insufficient to explain the number and taxonomic diversity of the small animals reported from the site. While

problematic, the concept of commensal fauna also seems insufficient in explaining the presence of small animals at the site. As noted by Winkler (n.d., 1990) and discussed further below, the high frequency of burning on the sample strongly supports the notion that the small animal assemblage reflects human activity.

Bone Density

Differential preservation can also bias a faunal assemblage against certain taxa and elements. The bones of fish, birds, reptiles, and amphibians are more fragile than those of mammals and tend to preserve less readily. In addition, the skeletons of reptiles and amphibians contain proportionately more cartilage than do the skeletons of the other vertebrate classes due to their characteristic indeterminate growth. This further hinders their preservation and identification potential and may result in a bias against the presence of their remains at a site.

Detailed work by Lyman (1982b, 1984, 1985, 1993) and others (Kreutzer 1992) has shown that differential preservation of dense skeletal elements can bias faunal samples. Bone density was probably a significant biasing factor at the site. Artiodactyls for example, are represented in the 1/4-inch sample more commonly by dense bones such as carpals, tarsals, and phalanges than by more-fragile bones such as the cranium or scapula (Table 33-5). The recognition of this possible density-mediated attrition greatly complicates any interpretations of carcass transport and butchering. Differences noted in element representation may simply represent a preservation bias, rather than differential carcass transport by humans. This issue is addressed more fully elsewhere in this analysis.

Animal Processing and Transport

In using the Wilson-Leonard faunal sample to reconstruct prehistoric subsistence, it is important to acknowledge that certain animal resources may have been consumed away from the site, never entering the sample studied here. Entire animals may have been processed and consumed away from the site. Likewise, large animals such as bison or deer may have been killed and butchered elsewhere, with only selective parts returned to the site. It is also possible that some processing occurred at this site but that parts were transported off-site. The high degree of fragmentation of the sample, coupled with the possibility of density-mediated attrition (discussed above) makes the identification of differential processing and transport difficult to access.

Bone Burning

The issue of burned bones at the site is addressed from three perspectives: (1) burning as a bone-preserving mechanism, (2) burning as a bone-fragmentation and re-

TABLE 33-5
Artiodactyl Element Frequencies in the 1/4-inch Sample

Element	NISP
Skull (Excluding teeth) (Total=22; 4.9% NISP)	
Cranial fragment	5
Antler	9
Mandible	8
Teeth (14% NISP):	63
Vertebral Column (Total=5; 1.1% NISP)	
Cervical vertebra	1
Axis	1
Thoracic vertebra	1
Lumbar vertebra	2
Pelvis (1.1% NISP)	5
Scapula (0.4% NISP)	2
Long Bones (Total=168; 37.1% NISP)	
Humerus	13
Radius	13
Ulna	8
Fused 3rd and 4th metacarpal	15
Femur	7
Tibia	19
Fibula	1
Metapodial indeterminate	34
Fused 3rd and 4th metatarsal	58
Phalanges and Paradigits (17% NISP)	76
Podials (Total=89; 20% NISP)	
Carpals	28
Tarsals	61
Sesamoids (Total=22; 4.9% NISP)	
Sesamoid indeterminate	1
Proximal sesamoid	17
Proximal abaxial sesamoid	3
Patella	1
Total:	452
Phalanx, Podial and Sesamoid Total (41% NISP)	187
Skull, Vertebrae, Pelvis, Scapula Total (7.5% NISP)	34

*Taxa include *Odocoileus* sp., cf. *Odocoileus* sp., *Antilocapra* *Odocoileus* genus indeterminate, and cf. *Antilocapra/Odocoileus* genus indeterminate. Only three pronghorn elements were identified from the site; thus, most elements probably represent deer (*Odocoileus* sp.).

ducing agent, and (3) burning as a reflection of human activity. Other researchers have noted that the burning of bones may affect their preservation potential (Buikstra and Swegle 1989:248; Gilchrist and Mytum 1986; Knight 1985). Burning may render certain bones less susceptible to weathering and postburial chemical degradation (Gilchrist and Mytum 1986:30). Gilchrist and Mytum (1986:30) describe an assemblage from acidic soils of gravel and clay in which only burned bones were preserved. Thus, at sites with marginal or reduced preservation, the burned sample may

be relatively better preserved (Buikstra and Swegle 1989:248).

Gilchrist and Mytum (1986:30) and Knight (1985:82) present conflicting accounts of the direct processes that render burned bones less susceptible to weathering and degradation. According to Gilchrist and Mytum (1985:30),

The major components of bone are the protein collagen, and a mineral - hydroxyapatite in microcrystalline form. Strength and durability are provided by the organic matter and rigidity by the mineral. Although the organic content of bone can be completely destroyed by prolonged heating, incomplete calcination can fortify the bone against other agents of destruction. Before complete calcination occurs, the organic matter chars, but it remains, filling the pores of the bone, and thus cementing the mineral components together. Once carbonized, the organic matter remains stable and resistant to chemical change encountered in the soil.

Knight (1985:82), on the other hand, viewed the removal of bone organics as the contributing factor in burned bone preservation:

Completely calcined bone is preserved for long periods of time in acidic soils because of the chemical and microstructural changes that take place during incineration. The relationship between the organic and inorganic components of bone is critical to its decomposition. Recent work by White and Hannus (1983) strongly suggests that the microbial decomposition of collagen initiates the reactions necessary for the destruction of hydroxyapatite. Because completely calcined bone contains no collagen the initial reactions of bone decomposition do not take place, and preservation potential is increased.

Winkler's (n.d.:13-15, 1990:203-204) previous analyses of the Wilson-Leonard fine-screen fraction show that bone burning was a significant taphonomic factor affecting the small animal sample. She notes that the majority of her sample (89%) from the upper 16 levels of the site was unburned, while most (81%) of the lower material was burned (Winkler 1990:203). The higher frequency of burned bones from the lower levels suggests differential preservation in favor of burned bones (Winkler 1990:203).

Of the 21,867 specimens from the 1/4-inch sample, 8,686 (40%) were burned. From the 1/8-inch sample, 15,041 specimens (39%) were burned. These are remarkably similar results. Burned bone frequencies by cultural period are summarized in Table 33-6. These data show a general trend of greater percentages of burned bones in lower portions of the site, similar to Winkler's (n.d., 1990) data discussed above. Fifty-five percent of the 1/4-inch Paleoindian sample (all components) is burned, while 25.4% of the bones from com-

bined Archaic and Late Prehistoric components are burned. The difference for the 1/8-inch sample is even more dramatic. There, 64.7% of the Paleoindian sample (combined components) is burned, while 21.2% of the faunal sample from the combined Archaic through Late Prehistoric components is burned. Both data sets, in conjunction with Winkler's and Balinsky's (see Chapter 35) data support the notion of preservation bias at the site through time in favor of burned bones.

While burning may yield bones less susceptible to decay in certain environments, burning can also lead to a great deal of bone fragmentation. At some sites, burning may represent a major bone reducing force, with the burned bones being less identifiable than the nonburned sample. Overall, the biases produced by burning may inflate (through differential burned bone preservation) or decrease (through fragmentation) counts for certain taxa or body parts (Knight 1985) and should be considered in reconstructing past subsistence patterns.

Spiess (1987:16) noted that while calcined bones (burned white) are more resistant to bacterial action and contact with groundwater acid, they are less resistant to stress than are unburned bones and commonly break into very small fragments. Spennemann and Colley (1989:57) suggested that much of the fragmentation of burned bones may result from recovery methods. Buikstra and Swegle (1989:248) additionally commented that zooarcheologists commonly encounter "disproportionately large numbers of burned fragments in counts of unidentifiable faunal remains."

Burned bones from the Wilson-Leonard site are similarly fragmented. Of the burned 1/4-inch vertebrate sample, 71% (n=6,199) consists of small fragments unidentifiable to the taxonomic level of class. Only 25 burned bones from the 1/4-inch fraction were unbroken. In the 1/8-inch burned sample, 62% (n=9,321) was unidentifiable fragments. Only 38 specimens (0.25%) in the burned 1/8-inch sample were unbroken. Overall, this suggests that while serving as a preserving mechanism in one sense, burning is also associated with a high degree of bone fragmentation at the site.

The important question remains, however, what agent caused the bones to burn? Possible causes are burning by humans or natural fires. At least seven burned trees have been identified in the site deposits (see Chapters 26 and 40), and these may represent natural fires. Various kinds of fireplaces, in turn, are common archeological features at the site, thus burning could reflect human activity. A further discussion of the burned bone assemblage is presented here in an attempt to determine if it reflects human or nonhuman behavior.

Buikstra and Swegle (1989) conducted experiments to help reconstruct bone condition (fleshed, green, or dry) at the time of burning. Knowing whether the bones were fresh or dry could provide insight into how and when they were burned. Fleshed bones still contain flesh; green bone is recently defleshed or still fresh; while dry bone has lost the

TABLE 33-6
Burned Bone by Cultural Period

	Period Totals	Burned Totals	% of Period Burned
1/4-inch Burned Bone:			
Unassigned	214	50	23.4
Paleoindian	957	701	73.2
Early Paleoindian	3,805	827	21.7
Late Paleoindian	5,050	3,852	76.3
Late Paleoindian/Early Archaic	768	439	57.2
Archaic	153	30	19.6
Early Archaic	1,764	603	34.2
Early/Middle Archaic	794	129	16.2
Middle Archaic	647	120	18.5
Middle/Late Archaic	913	163	17.9
Late Archaic	3,357	756	22.5
Archaic/Late Prehistoric	748	204	27.3
Late Archaic/Late Prehistoric	1,870	609	32.6
Late Prehistoric	827	203	24.5
Totals:	21,867	8,686	
1/8-inch Burned Bone:			
Unassigned	355	49	13.8
Paleoindian	2,065	1,243	60.2
Early Paleoindian	1,870	902	48.2
Late Paleoindian	8,669	6,465	74.6
Late Paleoindian/Early Archaic	3,210	1,619	50.4
Archaic	329	130	39.5
Early Archaic	4,765	1,482	31.1
Early/Middle Archaic	1,176	190	16.2
Middle Archaic	3,940	488	12.4
Middle/Late Archaic	2,942	305	10.4
Late Archaic	6,145	1,039	16.9
Late Archaic/Late Prehistoric	3,152	1,129	35.8
Totals:	38,618	15,041	

majority of its collagen. Factors considered in identifying original bone condition include burned bone color and fracture patterns. Their study showed in part that burned dry bone fails to achieve a wide range of colors and typically shows a tan surface with gray to white areas underneath (Buikstra and Swegle 1989:256). Bones that retain a high degree of collagen, including fleshed and defleshed bones, achieve a broader range of colors (white, blue, gray) when fired at high temperatures.

Few bones from the site appear to have been burned dry. The majority of the sample shows the range of colors (blues and whites) typical of bone that contains a high degree of collagen when it is burned. This suggests the bone was burned relatively shortly after the death of the animal and not after the bone had lost the majority of its organic collagen matrix. Shipman et al. (1984:323) suggests that grass and savanna fires can be eliminated altogether as a cause of noticeably burned bone. These fires produce surface temperatures greater than 65°C for a period of less than 10 minutes (Stinson and Wright 1969). A bone temperature range of 440-800°C is required for bone to reach the white and blue colors typical of the Wilson-Leonard sample (Shipman et al. 1984:313; Stage IV). These temperatures can, however, be

reached by forest fires or human campfires (Shipman et al. 1984:308, 323).

Since evidence of forest fire was restricted primarily to Stratigraphic Units IIIb and the II/I contact, and since burned bone was noted throughout all time periods at the site (see Table 33-6), it seems likely that burned bone from the site resulted primarily from prehistoric human behavior, rather than natural fires. This further supports the hypothesis that the small animal assemblage from the site, which is highly burned (Winkler 1990:203), reflects human food refuse. It is unlikely that the burned bone resulted directly from cooking, since this extensive burning would have yielded any meat adhering the bone virtually inedible. It is more likely that the bones were either accidentally burned in cultural fires or were burned in hearths as refuse.

Conclusions

Taphonomic analysis shows that the ratio of identifiable bones is greatly modified by fragmentation and geophysical dissolution in the Wilson-Leonard sample. Heavy chemical degradation eliminated the applicability of Behrensmeier's weathering stages for understanding site

formation processes. Rootlet etching probably played only a very minor role in the degradation of the sample. The majority of the site formed under a low-energy sedimentation regime, therefore water transport did not significantly bias the sample. Possible exceptions to this are the gravel lenses in stratigraphic Unit I, which represent higher-energy sedimentary environments. The bone itself shows no significant evidence of abrasion and rounding typical of water-transported assemblages. Rodent gnawing was a relatively minor form of bone reduction at the site. Bioturbation was not a major source of disturbance at the site, though the prehistoric construction of burned rock cooking features in the upper levels did create significant disturbance in affected areas. No specific evidence of carnivore scavenging or scat deposition was identified, though evidence could have been masked by further postdepositional degradation. Analysis of the burned bone suggests that burning served both to differentially preserve and fragment the sample. Evidence indicates that burned bone was probably produced by human activity rather than natural fires. This also supports the idea that the small animal component at the site represents food refuse and not intrusive or commensal animals.

SUBSISTENCE ANALYSIS

The term subsistence is used to refer to a general lifeway including the collecting, processing, and consumption of food items. Common questions raised by archeologists about a past people's subsistence include what taxa were consumed? Where were they collected? Which parts were consumed and by whom? When and where did these various activities take place? More narrowly, subsistence reconstruction attempts to identify the exact nature of what was consumed, that is, the past diet.

The objective of this section is to evaluate the role of animals from the 1/4-inch and 1/8-inch samples in human subsistence at the Wilson-Leonard site. Emphasis is placed on (1) identifying taxa that potentially contributed to the diet of the site's occupants; (2) reconstructing prehistoric human hunting patterns represented at the Wilson-Leonard site; and (3) identifying how the animal remains were processed and modified by humans.

The primary step in subsistence analysis and diet reconstruction is taxa identification and quantification. As described in the methods section, emphasis is placed on NISP frequencies in characterizing the sample. Here NISP is used to mean the number of specimens assigned to a given taxonomic category. Taxa from the site and their relative frequencies are summarized below and in Tables 33-7 through 33-10. Also see Table 33-2 for a listing of which strata were used for cultural assignments.

The reconstruction of human hunting patterns focuses on several issues. What taxa appear to have contributed significantly to the diet or were commonly hunted? What

habitats were used to procure animal food resources? Were animals of a certain age preferentially harvested? Finally, during what seasons were certain animals hunted? In addressing animal processing, emphasis is placed on element and butchery reconstruction and marrow and grease production (Binford 1981:87-181; Lintz 1976:87-88; Lyman 1987; Peale 1978; Vehik 1977).

Taxa Recovered

1/4-inch Sample

A total of 21,867 complete or fragmented bones, teeth, and antler fragments was analyzed from the 1/4-inch faunal sample (see Tables 33-7 and 33-9). Specimens identifiable minimally to the taxonomic level of order comprise only 12.1% ($n=2,637$) of the total sample. At least 21 species are reflected in the 1/4-inch sample (excluding a fossil shark tooth), representing 4 vertebrate classes. These classes include Osteichthyes (fish), Reptilia (reptiles), Aves (birds), and Mammalia (mammals). No amphibian bones were identified from the 1/4-inch assemblage.

The 21 distinct taxa include indeterminate small fish, *Sternotherus* sp. (musk turtle), *Terrapene* sp. (box turtle), *Trionyx* sp. (softshell turtle), Colubridae (nonpoisonous snake), indeterminate large bird, Odontophorinae (New World quail), *Lepus californicus* (black-tailed jackrabbit), *Sylvilagus* sp. (cottontail rabbits), *Sciurus* sp. (tree squirrels), *Geomys* sp. (pocket gopher), *Sigmodon hispidus* (hispid cotton rat), *Neotoma* sp. (wood rats), *Procyon lotor* (raccoon), Mephitinae (skunks), *Canis* sp. (coyote/wolf/dog), *Felis rufus* (bobcat), *Odocoileus* sp. (deer), *Antilocapra americana* (pronghorn), *Bison* sp. (bison), and *Equus* sp. (horse).

Overall, the 1/4-inch sample is composed primarily of unidentified fragmented remains. Of the 21,867 elements analyzed, only 0.7% ($n=146$) were complete. Seventy-seven percent of the sample ($n=16,937$) consists of small fragments unidentifiable to class. This high degree of fragmentation greatly hindered identification.

1/8-inch Sample

Of the analyzed 1/8-inch faunal sample (see Tables 33-8 and 33-10), most of the specimens were recovered from the Valley Floor (93%, $n=35,952$). Of the remaining 2,666 specimens from the Valley Margin, 1,914 are simply unidentifiable fragments. Specimens identifiable minimally to the taxonomic level of order comprise only 19% ($n=7,326$) of the total sample. At least 25 species are represented in the 1/8-inch sample (excluding a second fossil shark tooth), representing 5 vertebrate classes. These classes include Osteichthyes, Amphibia, Reptilia, Aves, and Mammalia. The 25 distinct taxa include *Ictalurus* sp. (catfish), Anura (toad/frog), *Kinosternon* sp. (mud turtle), *Chrysemys sensu lato* (water turtle), *Trionyx* sp. (softshell turtle), Colubridae

TABLE 33-7
Common Name and NISP Counts of 1/4-inch Taxa

Taxon	Common Name	Totals
Class Indeterminate:		
Vertebrata	Vertebrates	15,309
Small vertebrate, class indeterminate	Small vertebrate	1
Medium vertebrate, class indeterminate	Medium vertebrate	3
Large vertebrate, class indeterminate	Large vertebrate	13
Small/Medium Vertebrata	Small/medium-sized vertebrate	442
Medium/Large Vertebrata	Medium/large vertebrate	1,169
Class Chondrichthyes:		
Chondrichthyes	Cartilaginous fish	1
Class Osteichthyes:		
Osteichthyes (Small)	Small bony fish	2
Osteichthyes	Bony fish	2
Class Reptilia:		
Testudinata	Turtles	129
cf. Testudinata	Turtles	1
Kinosternidae	Mud and musk turtles	13
<i>Sternotherus</i> sp.	Musk turtles	2
Emydidae	Water and box turtles	4
<i>Terrapene</i> sp.	Box turtles	1
<i>Trionyx</i> sp.	Softshell turtle	3
Serpentes	Snakes	16
Colubridae	Colubrid snakes	9
Class Aves:		
cf. Aves (Medium)	Medium birds	1
Aves (Large)	Large birds	1
Aves	Birds	1
Phasianidae	Turkeys, grouse, quails, etc.	1
Class Mammalia:		
Mammalia (Small)	Small mammal	30
Mammalia (Small/Medium)	Small/medium-sized mammal	9
Mammalia (Medium)	Medium-sized mammal	100
Mammalia (Medium/Large)	Medium/large mammal	3,197
Mammalia (Large)	Large mammal	543
Mammalia (Large/Very large)	Large/very large mammal	3
Mammalia (Very large)	Very large mammal	30
Mammalia	Mammal	2
Leporidae	Rabbits and hares	70
cf. Leporidae	Rabbits and hares	3
<i>Lepus californicus</i>	California jackrabbit	19
<i>Sylvilagus</i> sp.	Cottontail rabbits	41
cf. <i>Sylvilagus</i> sp.	Cottontail rabbits	3
Rodentia (Small)	Small rodent	2
Rodentia (Small/Medium)	Small/medium-sized rodent	1
Rodentia (Medium)	Medium rodent	2
<i>Sciurus</i> sp.	Tree squirrels	2
<i>Geomys</i> sp.	Pocket gophers	2
<i>Sigmodon hispidus</i>	Hispid cotton rat	14

Table 33-7, continued

Taxon	Common Name	Totals
cf. <i>Sigmodon hispidus</i>	Hispid cotton rat	1
<i>Neotoma</i> sp.	Wood rats	1
Carnivora	Carnivores	25
<i>Procyon lotor</i>	Raccoon	2
Mustelidae	Weasels and relatives	4
cf. Canidae	Dogs and relatives	1
<i>Canis</i> sp.	Coyote/wolf/dog	23
cf. <i>Canis</i> sp.	Coyote/wolf/dog	2
<i>Felis rufus</i>	Bobcat	1
Artiodactyla	Even-toed ungulates	106
Artiodactyla (Medium)	Medium even-toed ungulates	7
Artiodactyla (Large)	Large even-toed ungulates	5
<i>Odocoileus</i> sp.	Deer	148
cf. <i>Odocoileus</i> sp.	Deer	4
<i>Antilocapra americana</i>	Pronghorn antelope	3
<i>Antilocapra/Odocoileus</i>	Pronghorn/deer	299
cf. <i>Antilocapra/Odocoileus</i>	Pronghorn/deer	2
<i>Bison</i> sp.	Bison	32
cf. <i>Bison</i>	Bison	3
<i>Equus</i> sp.	Horses and relatives	1
Total:		21,867

(nonpoisonous snakes), Viperidae (pitviper snakes), indeterminate small bird, indeterminate medium-sized bird, indeterminate large bird, *Blarina* sp. (shrew), *Lepus californicus* (black-tailed jackrabbit), *Sylvilagus* sp. (cottontail rabbits), *Sciurus* sp. (tree squirrels), cf. *Spermophilus mexicanus* (Mexican ground squirrel), *Geomys* sp. (pocket gopher), *Sigmodon hispidus* (hispid cotton rat), *Neotoma* sp. (wood rats), cf. *Microtus* sp., *Ondatra zibethicus* (muskrat), *Procyon lotor* (raccoon), *Canis* sp. (coyote/wolf/dog), *Odocoileus* sp. (deer), *Antilocapra americana* (pronghorn), and *Bison* sp. (bison).

Overall, the 1/8-inch sample is composed primarily of unidentified fragmented remains. Of the 38,618 elements analyzed, only 0.64% (n=246) were complete. Sixty-eight percent of the sample (n=26,253) consists of small fragments unidentifiable to class. As with the 1/4-inch sample, this high degree of fragmentation greatly hindered identification. Both the 1/4-inch and 1/8-inch samples are characterized below in terms of taxa presence by vertebrate class.

Comparison

Species counts and fragmentation rates between the two samples are generally comparable. However, there is a major difference in terms of artiodactyl frequency. While 606 artiodactyl specimens were identified in the 1/4-inch sample, less than half that many were noted in the 1/8-inch sample (n=280). The use of 1/8-inch screens suggests that their

lower recovery rate from the TARL excavations was not the result of recovery method bias. The differences appear to result from the sampling of different activity areas at the site by the TxDOT and TARL excavations and possibly the smaller volume excavated by TARL.

FISH

Fish from the 1/4-inch sample were rare (see Tables 33-7 and 33-9). Only four vertebrae were identified (see Appendix 10), all from relatively small fish. The 1/8-inch sample yielded 27 fish specimens. This low frequency of fish is undoubtedly the result of archeological recovery methods. One specimen was identifiable as catfish (*Ictalurus* sp.). Thirty-seven percent (n=10) of the 1/8-inch fish sample is burned. Additional fish were recovered from the fine-screen fraction (see Chapter 35 and Appendix 8). The sparse fish remains from the 1/4-inch and 1/8-inch samples are most likely a reflection of archeological recovery methods, as indicated by higher frequencies in the fine-screen sample.

AMPHIBIANS

No amphibians were identified from the 1/4-inch sample. This large screen size generally biases against their recovery. Fourteen specimens were recovered from the 1/8-inch sample, and additional examples were noted in the fine-screen

TABLE 33-8
Common Name and NISP Counts of 1/8-inch Taxa

Taxon	Common Name	Totals
Class Indeterminate:		
Vertebrata	Vertebrates	26,253
Micro vertebrate, class indeterminate	Micro vertebrate	2
Small vertebrate, class indeterminate	Small vertebrate	74
Medium vertebrate, class indeterminate	Medium vertebrate	27
Small/Medium Vertebrata	Small/medium-sized vertebrate	4,581
Medium/Large Vertebrata	Medium/large vertebrate	702
Class Chondrichthyes:		
Chondrichthyes	Cartilaginous fish	1
Class Osteichthyes:		
Osteichthyes (Small)	Small bony fish	24
Osteichthyes	Bony fish	2
<i>Ictalurus</i> sp.	Catfish	1
Class Amphibia:		
Anura	Toads and frogs	14
Class Reptilia:		
Testudinata	Turtles	313
Kinosternidae	Mud and musk turtles	7
<i>Kinosternon</i> sp.	Mud turtles	2
Emydidae	Water and box turtles	15
<i>Chrysemys sensu lato</i>	Painted turtles/cooters/sliders	2
<i>Trionyx</i> sp.	Softshell turtle	1
Squamata	Lizards and snakes	9
Serpentes	Snakes	127
Colubridae	Colubrid snakes	94
Viperidae	Pitviper snakes	14
Class Aves:		
Aves (Small)	Small birds	1
Aves (Medium)	Medium birds	3
Aves (Large)	Large birds	2
Class Mammalia:		
Mammalia (Micro)	Micro-mammal	100
Mammalia (Small)	Small mammal	384
Mammalia (Small/Medium)	Small/medium-sized mammal	57
Mammalia (Medium)	Medium-sized mammal	150
Mammalia (Medium/Large)	Medium/large mammal	3,934
Mammalia (Large)	Large mammal	368
Mammalia (Large/Very large)	Large/very large mammal	3
Mammalia (Very large)	Very large mammal	11
<i>Blarina</i> sp.	Shrews	2
Leporidae	Rabbits and hares	291
cf. Leporidae	Rabbits and hares	11
<i>Lepus californicus</i>	California jackrabbit	116
cf. <i>Lepus californicus</i>	California jackrabbit	5
<i>Sylvilagus</i> sp.	Cottontail rabbits	347
cf. <i>Sylvilagus</i> sp.	Cottontail rabbits	5
Rodentia	Rodents	1

Table 33-8, continued

Taxon	Common Name	Totals
Rodentia (Small)	Small rodent	15
Rodentia (Small/Medium)	Small/medium-sized rodent	4
Rodentia (Medium)	Medium rodent	42
<i>Sciurus</i> sp.	Tree squirrels	1
cf. <i>Spermophilus mexicanus</i>	Mexican ground squirrel	1
<i>Geomys</i> sp.	Pocket gophers	101
cf. <i>Geomys</i> sp.	Pocket gophers	2
Cricetidae	New World rats and mice	2
Cricetidae (Small)	Small cricetid rodent	5
Cricetidae (Medium)	Medium cricetid rodent	7
<i>Sigmodon hispidus</i>	Hispid cotton rat	22
cf. <i>Sigmodon hispidus</i>	Hispid cotton rat	1
<i>Neotoma</i> sp.	Wood rats	46
cf. <i>Microtus</i> sp.	Voies	2
<i>Ondatra zibethicus</i>	Muskrat	1
Carnivora	Carnivores	17
<i>Procyon lotor</i>	Raccoon	1
cf. <i>Procyon lotor</i>	Raccoon	1
<i>Canis</i> sp.	Coyote/wolf/dog	4
cf. <i>Canis</i> sp.	Coyote/wolf/dog	2
Artiodactyla	Even-toed ungulates	50
<i>Odocoileus</i> sp.	Deer	153
cf. <i>Odocoileus</i> sp.	Deer	3
<i>Antilocapra americana</i>	Pronghorn antelope	5
<i>Antilocapra/Odocoileus</i>	Pronghorn/deer	72
<i>Bison</i> sp.	Bison	2
Total:		38,618

fraction (see Chapter 35). None of the specimens from the 1/8-inch sample is burned. The limited taphonomy work that has been conducted on frogs and toads suggests they can enter archeological sites intrusively if they become trapped in pits or similar features (Shaffer and Neely 1992; Whyte 1988, 1991). One specimen was recovered from Burned Rock Midden 1 and a second specimen was noted in Feature 231. Exactly how the anurans entered the site, however, remains unclear.

REPTILES

Reptiles in the 1/4-inch sample (N=178) are represented by turtles (n=153) and snakes (n=25). As with fish, reptiles were likely biased against by recovery methods. Turtles from the 1/4-inch sample include musk turtle (*Sternotherus* sp.), box turtle (*Terrapene* sp.), and softshell turtle (*Trionyx* sp.). These reflect both aquatic and terrestrial habitats. Of the snakes, only the nonpoisonous family Colubridae was identified. Roughly 42% of the 1/4-inch reptile sample is burned.

Reptiles are more frequent in the 1/8-inch sample (N=584) and are represented by turtles (n=340), snakes (n=235) and fragmented vertebrae indistinguishable between snakes and lizards (n=9). Taxa include mud turtle (*Kinosternon* sp.), water turtle (*Chrysemys sensu lato*), softshell turtle (*Trionyx* sp.), as well as both viperid and colubrid snakes. These animals reflect both aquatic and terrestrial habitats. Roughly 31% (n=179) of the 1/8-inch reptile sample is burned. Additional reptiles were identified in the fine-screen fraction (see Chapter 35 and Appendix 8).

BIRDS

Birds are also uncommon in the 1/4-inch sample. One quail bone was identified, and three additional bird bones were noted (see Appendix 8). Three of these are burned. While not identified beyond class, six bird bones were recovered from the 1/8-inch sample, three of which are burned. As discussed in the taphonomy section, the fragile nature of bird bones renders them susceptible to extensive postdepositional fragmentation and degradation. Even in

TABLE 33-9
Taxa by Cultural Period and Major Vertebrate Group from the 1/4-inch Recovery

Period	Vertebrate Group	Totals	Percent
Unassigned	Unidentified	146	0.668
Unassigned	Turtle	2	0.009
Unassigned	Unidentified Mammal	46	0.210
Unassigned	Leporid	2	0.009
Unassigned	Artiodactyl	18	0.082
Paleoindian	Unidentified	810	3.704
Paleoindian	Fish	1	0.004
Paleoindian	Turtle	3	0.014
Paleoindian	Unidentified Mammal	131	0.599
Paleoindian	Rodent	1	0.004
Paleoindian	Leporid	6	0.027
Paleoindian	Carnivore	1	0.004
Paleoindian	Artiodactyl	1	0.004
Paleoindian	Bison/Bison-sized	3	0.014
Early Paleoindian	Unidentified	3,258	14.899
Early Paleoindian	Fish	2	0.009
Early Paleoindian	Turtle	5	0.023
Early Paleoindian	Snake	8	0.037
Early Paleoindian	Bird	1	0.004
Early Paleoindian	Unidentified Mammal	441	1.880
Early Paleoindian	Rodent	2	0.009
Early Paleoindian	Leporid	25	0.114
Early Paleoindian	Carnivore	12	0.055
Early Paleoindian	Artiodactyl	9	0.041
Early Paleoindian	Horse	1	0.004
Early Paleoindian	Bison/Bison-sized	41	0.184
Late Paleoindian	Unidentified	4,090	18.704
Late Paleoindian	Shark	1	0.004
Late Paleoindian	Turtle	28	0.128
Late Paleoindian	Bird	2	0.009
Late Paleoindian	Unidentified Mammal	832	3.805
Late Paleoindian	Rodent	1	0.004
Late Paleoindian	Leporid	30	0.137
Late Paleoindian	Carnivore	13	0.059
Late Paleoindian	Artiodactyl	45	0.206
Late Paleoindian	Bison/Bison-sized	8	0.037
Late Paleoindian/Early Archaic	Unidentified	552	2.524
Late Paleoindian/Early Archaic	Turtle	12	0.055
Late Paleoindian/Early Archaic	Unidentified Mammal	182	0.832
Late Paleoindian/Early Archaic	Rodent	1	0.004
Late Paleoindian/Early Archaic	Leporid	12	0.055
Late Paleoindian/Early Archaic	Artiodactyl	9	0.041
Archaic	Unidentified	95	0.434
Archaic	Turtle	4	0.018
Archaic	Snake	1	0.004
Archaic	Unidentified Mammal	37	0.169
Archaic	Leporid	1	0.004
Archaic	Artiodactyl	15	0.069
Early Archaic	Unidentified	1,238	5.661
Early Archaic	Turtle	29	0.133
Early Archaic	Snake	5	0.023
Early Archaic	Unidentified Mammal	426	1.948
Early Archaic	Rodent	6	0.027
Early Archaic	Leporid	16	0.073
Early Archaic	Carnivore	8	0.037

Table 33-9, *continued*

Period	Vertebrate Group	Totals	Percent
Early Archaic	Artiodactyl	36	0.165
Early/Middle Archaic	Unidentified	584	2.671
Early/Middle Archaic	Turtle	13	0.059
Early/Middle Archaic	Bird	1	0.004
Early/Middle Archaic	Unidentified Mammal	145	0.663
Early/Middle Archaic	Rodent	3	0.014
Early/Middle Archaic	Leporid	8	0.037
Early/Middle Archaic	Carnivore	5	0.023
Early/Middle Archaic	Artiodactyl	35	0.160
Middle Archaic	Unidentified	459	2.099
Middle Archaic	Turtle	14	0.064
Middle Archaic	Snake	2	0.009
Middle Archaic	Unidentified Mammal	133	0.608
Middle Archaic	Leporid	13	0.059
Middle Archaic	Carnivore	2	0.009
Middle Archaic	Artiodactyl	24	0.110
Middle/Late Archaic	Unidentified	669	3.059
Middle/Late Archaic	Turtle	8	0.037
Middle/Late Archaic	Snake	2	0.009
Middle/Late Archaic	Unidentified Mammal	163	0.745
Middle/Late Archaic	Rodent	6	0.027
Middle/Late Archaic	Leporid	8	0.037
Middle/Late Archaic	Carnivore	1	0.004
Middle/Late Archaic	Artiodactyl	55	0.252
Middle/Late Archaic	Bison/Bison-sized	1	0.004
Late Archaic	Unidentified	2,481	11.346
Late Archaic	Fish	1	0.004
Late Archaic	Turtle	21	0.096
Late Archaic	Snake	5	0.023
Late Archaic	Unidentified Mammal	638	2.918
Late Archaic	Rodent	5	0.023
Late Archaic	Leporid	14	0.064
Late Archaic	Carnivore	8	0.037
Late Archaic	Artiodactyl	172	0.787
Late Archaic	Bison/Bison-sized	12	0.055
Archaic/Late Prehistoric	Unidentified	573	2.620
Archaic/Late Prehistoric	Turtle	4	0.018
Archaic/Late Prehistoric	Snake	1	0.004
Archaic/Late Prehistoric	Unidentified Mammal	132	0.604
Archaic/Late Prehistoric	Artiodactyl	38	0.174
Late Archaic/Late Prehistoric	Unidentified	1,393	6.370
Late Archaic/Late Prehistoric	Turtle	10	0.046
Late Archaic/Late Prehistoric	Snake	1	0.004
Late Archaic/Late Prehistoric	Unidentified Mammal	365	1.669
Late Archaic/Late Prehistoric	Leporid	1	0.004
Late Archaic/Late Prehistoric	Carnivore	8	0.037
Late Archaic/Late Prehistoric	Artiodactyl	92	0.421
Late Prehistoric	Unidentified	589	2.694
Late Prehistoric	Unidentified Mammal	213	0.974
Late Prehistoric	Artiodactyl	25	0.114
Total:		21,867	

the fine-screen fraction, bird bones are relatively rare (see Chapter 35). In fact, eggshells appear to be more common in the site than bird bones (see Chapters 35 and 36). Birds likely served as a food source for prehistoric Central Texans,

though their dietary contribution remains unclear. Taphonomic variables make it difficult to assess how extensive birds were used, though because of their rarity, their mere presence in a Central Texas archeological site is significant.

TABLE 33-10
Taxa by Cultural Period and Major Vertebrate Group from the 1/8-inch Recovery

Period	Group	Totals	Percent
Unassigned	Unidentified	240	0.621
Unassigned	Unidentified Mammal	103	0.267
Unassigned	Leporid	2	0.005
Unassigned	Artiodactyl	10	0.026
Paleoindian	Unidentified	1,823	4.721
Paleoindian	Shark	1	0.003
Paleoindian	Turtle	21	0.054
Paleoindian	Snake	21	0.054
Paleoindian	Bird	2	0.005
Paleoindian	Unidentified Mammal	142	0.368
Paleoindian	Rodent	16	0.041
Paleoindian	Leporid	35	0.091
Paleoindian	Artiodactyl	4	0.010
Early Paleoindian	Unidentified	1,381	3.576
Early Paleoindian	Turtle	13	0.034
Early Paleoindian	Snake	3	0.008
Early Paleoindian	Unidentified Mammal	397	1.028
Early Paleoindian	Rodent	7	0.018
Early Paleoindian	Leporid	64	0.166
Early Paleoindian	Bison/Bison-sized	5	0.013
Late Paleoindian	Unidentified	7,709	19.962
Late Paleoindian	Fish	11	0.028
Late Paleoindian	Lizard/snake	5	0.013
Late Paleoindian	Turtle	47	0.122
Late Paleoindian	Snake	30	0.078
Late Paleoindian	Bird	1	0.003
Late Paleoindian	Unidentified Mammal	574	1.486
Late Paleoindian	Insectivore	2	0.005
Late Paleoindian	Rodent	55	0.142
Late Paleoindian	Leporid	223	0.577
Late Paleoindian	Carnivore	4	0.010
Late Paleoindian	Artiodactyl	6	0.015
Late Paleoindian	Bison/Bison-sized	2	0.005
Late Paleoindian/Early Archaic	Unidentified	2,808	7.271
Late Paleoindian/Early Archaic	Fish	6	0.015
Late Paleoindian/Early Archaic	Frog/toad	1	0.003
Late Paleoindian/Early Archaic	Lizard/snake	1	0.003
Late Paleoindian/Early Archaic	Turtle	29	0.075
Late Paleoindian/Early Archaic	Snake	15	0.039
Late Paleoindian/Early Archaic	Unidentified Mammal	247	0.640
Late Paleoindian/Early Archaic	Rodent	21	0.054
Late Paleoindian/Early Archaic	Leporid	75	0.194
Late Paleoindian/Early Archaic	Carnivore	5	0.013
Late Paleoindian/Early Archaic	Artiodactyl	2	0.005
Archaic	Unidentified	299	0.774
Archaic	Fish	1	0.003
Archaic	Frog/toad	1	0.003
Archaic	Turtle	6	0.015
Archaic	Snake	2	0.005
Archaic	Unidentified Mammal	16	0.041
Archaic	Leporid	2	0.005
Archaic	Carnivore	1	0.003
Archaic	Artiodactyl	1	0.003
Early Archaic	Unidentified	4,054	10.498
Early Archaic	Fish	5	0.013
Early Archaic	Lizard/snake	3	0.008

Table 33-10, *continued*

Period	Group	Totals	Percent
Early Archaic	Turtle	79	0.205
Early Archaic	Snake	39	0.101
Early Archaic	Bird	1	0.003
Early Archaic	Unidentified Mammal	463	1.199
Early Archaic	Rodent	33	0.085
Early Archaic	Leporid	74	0.192
Early Archaic	Carnivore	2	0.005
Early Archaic	Artiodactyl	12	0.031
Early/Middle Archaic	Unidentified	944	2.444
Early/Middle Archaic	Frog/toad	7	0.018
Early/Middle Archaic	Turtle	15	0.039
Early/Middle Archaic	Snake	15	0.039
Early/Middle Archaic	Unidentified Mammal	141	0.365
Early/Middle Archaic	Rodent	12	0.031
Early/Middle Archaic	Leporid	25	0.065
Early/Middle Archaic	Carnivore	2	0.005
Early/Middle Archaic	Artiodactyl	15	0.039
Middle Archaic	Unidentified	3,111	8.056
Middle Archaic	Fish	1	0.003
Middle Archaic	Frog/toad	3	0.008
Middle Archaic	Turtle	42	0.109
Middle Archaic	Snake	46	0.119
Middle Archaic	Unidentified Mammal	502	1.300
Middle Archaic	Rodent	45	0.117
Middle Archaic	Leporid	154	0.399
Middle Archaic	Carnivore	4	0.010
Middle Archaic	Artiodactyl	32	0.083
Middle/Late Archaic	Unidentified	2,380	6.163
Middle/Late Archaic	Frog/toad	1	0.003
Middle/Late Archaic	Turtle	19	0.049
Middle/Late Archaic	Snake	21	0.054
Middle/Late Archaic	Bird	1	0.003
Middle/Late Archaic	Unidentified Mammal	397	1.028
Middle/Late Archaic	Rodent	27	0.070
Middle/Late Archaic	Leporid	63	0.163
Middle/Late Archaic	Carnivore	1	0.003
Middle/Late Archaic	Artiodactyl	32	0.083
Late Archaic	Unidentified	4,704	12.181
Late Archaic	Fish	3	0.008
Late Archaic	Frog/toad	1	0.003
Late Archaic	Turtle	52	0.135
Late Archaic	Snake	28	0.073
Late Archaic	Bird	1	0.003
Late Archaic	Unidentified Mammal	1,168	3.024
Late Archaic	Rodent	31	0.080
Late Archaic	Leporid	50	0.129
Late Archaic	Carnivore	6	0.016
Late Archaic	Artiodactyl	95	0.246
Late Archaic	Bison/Bison-sized	6	0.016
Late Archaic/Late Prehistoric	Unidentified	2,186	5.661
Late Archaic/Late Prehistoric	Turtle	17	0.044
Late Archaic/Late Prehistoric	Snake	15	0.039
Late Archaic/Late Prehistoric	Unidentified Mammal	846	2.191
Late Archaic/Late Prehistoric	Rodent	6	0.016
Late Archaic/Late Prehistoric	Leporid	8	0.021
Late Archaic/Late Prehistoric	Artiodactyl	74	0.192
Total:		38,618	

MAMMALS

Mammals are much more common at the site and dominate the vertebrates from both the 1/4-inch and 1/8-inch samples. Twenty-two percent of the 1/4-inch sample was identified as mammal ($n=4,743$). In turn, mammals form 97% of the total 1/4-inch sample identifiable to class. Almost 30% of the mammal sample is burned. Mammalian taxa include jackrabbit, cottontail rabbit, tree squirrel, pocket gopher, hispid cotton rat, woodrat, raccoon, skunk, canid, bobcat, pronghorn, deer, bison, and horse. Artiodactyls dominate the 1/4-inch mammal assemblage.

Sixteen percent of the 1/8-inch sample was identified as mammal ($n=6,347$). Mammals form 91% of the total 1/8-inch sample identifiable to class ($n=6,979$). Almost 35% ($n=2,175$) of the mammal sample is burned. Mammalian taxa include shrew, jackrabbit, cottontail rabbit, tree squirrel, ground squirrel, pocket gopher, hispid cotton rat, woodrat, vole, muskrat, raccoon, canid, pronghorn, deer, and bison. Leporids (rabbits and hares) dominate the identifiable 1/8-inch mammal assemblage. This is in stark contrast to the artiodactyl dominated 1/4-inch sample.

Hunting Patterns***Taxa Representation***

Overall, a diverse range of taxa is represented in the assemblage, though taxa counts for many genera are comparatively low. At least 21 species are reflected in the 1/4-inch assemblage, with 25 in the 1/8-inch sample. When the various classes of vertebrates are examined, it can be seen that mammals dominate. Artiodactyls dominate the 1/4-inch sample and leporids (rabbits and hares) dominate the 1/8-inch sample.

Habitats Exploited

Many animal species have very specific habitat preferences. It may be possible, then, to infer habitat types based on the presence of certain species within a given faunal assemblage. Assuming that the recovered fauna was exploited by humans within the vicinity of the site, one may also infer that the associated habitats existed in the site area.

The identification of fish, musk turtle, water turtle, softshell turtle and muskrat from the Wilson-Leonard site (1/4-inch and 1/8-inch samples) suggests the exploitation of riverine environments (Table 33-11). This is not surprising given that the site is located on Brushy Creek. A riverine adaptation is also supported by further paleoenvironmental data from the site. Faunal procurement from forest/woodland and forest edge habitats is indicated by the presence of squirrel, raccoon, skunk, bobcat, and deer. Well-drained areas are reflected by the presence of pocket gopher and

TABLE 33-11
Habitats of Recovered Fauna

Taxon	Habitat
Fish	Riverine/aquatic
Musk turtle	Riverine/aquatic
Box turtle	Diverse terrestrial habitats
Softshell turtle	Riverine/aquatic
New World quail	Grassland/scrubland/woodlands/brushy areas
Black-tailed jackrabbit	Dry scrublands
Cottontail rabbit	Diverse terrestrial habitats
Tree squirrel	Arboreal
Pocket gopher	Subterranean/loose, sandy soil
Ground squirrel	Brushy, grassy habitats
Hispid cotton rat	Well drained areas with dense ground cover
Wood rat	Diverse terrestrial habitats
Muskrat	Riverine/aquatic
Raccoon	Forest/forest edge
Skunk	Woodlands/forest edge/open fields
Canid	Diverse terrestrial habitats
Bobcat	Heavily wooded uplands and bottomland forests
Deer	Grassland/forest/forest edge
Pronghorn	Grassland/scrubland/forest edge
Bison	Grassland/scrubland/forest edge
Horse	Grassland

hispid cotton rat. Pronghorn, bison, horse, and jackrabbit reflect the presence of grassland or scrubland areas. However, few pronghorn elements were recovered from the site (see Appendix 10), while bison was largely restricted to the Paleoindian period. Thus, grasslands appear to reflect only a minor portion of the exploited habitats. Forest, forest edge, and riverine/riparian environments seem to have been most commonly exploited.

Deer Age Structure

Tooth wear for deer from the 1/4-inch sample was grossly assessed to determine if certain age groups of these animals were hunted. Deer teeth were comparatively rare in the 1/8-inch sample. Dental wear for deer was recorded as one of the following categories: slight or no wear (subadult), moderate wear (adult), and heavy wear (old adult). Specific chronometric age intervals were not assessed (Severinghaus 1949). Fifty-six deer teeth were recovered, 11 of which were fragments and could not be assessed for wear. Specimens showing moderate wear dominate the assemblage (82.2%; $n=37$), followed by slight wear (11.1%; $n=5$), and heavy wear (6.7%; $n=3$). While the sample proved too small for detailed analysis, it does show that deer from all age groups (subadult, adult, and old adult) were killed.

Bone fusion data were also broadly reviewed to see if they could provide age-related insight. Data for deer and pronghorn/deer indeterminate ($n=447$) from the 1/4-inch sample are summarized here. Long-bone portions showing fused epiphyses were considered adult, while unfused epiphyses reflect subadults. Specimens showing fused epiphyses ($n=52$; 11.6% of total sample) dominate the assemblage, followed by unfused epiphyses ($n=20$; 4.5%).

Comparative bone fusion data of deer from modern wildlife studies show that reconstructions of chronometric age intervals are problematic. Low nutrition levels in deer can delay epiphyseal fusion (Lewall and Cowan 1963), while different fusion rates occur between males and females (Purdue 1983a). Most deer elements, in fact, do not begin fusing until 20 months of age and continue fusing over a range of months (Purdue 1983a:1210). Overall, however, the fusion data for deer support the teeth wear data in that both adult and subadult deer were hunted by the Wilson-Leonard site's inhabitants.

Bison Age Structure

None of the bison or bison-sized bone from the 1/4-inch sample show unfused epiphyses suggestive of subadult individuals. Specimens showing fused epiphyses include the distal end of a left tibia (*Bison* sp.; Unit Igl/Isi; Early Paleoindian; Lot 30LL2a), the distal end of a right tibia (*Bison* sp.; Unit Isi/Isi-c; Paleoindian; Lot 28EE2d), and the distal end of a right humerus (*Bison* sp.; Unit IIIc; Late Archaic; Lot 36D). All of these specimens are suggestive of individuals at least four years old (Duffield 1973). An upper left M1 or M2 (*Bison* sp.) recovered from Unit Igl/Isi (Early Paleoindian; Lot 31MM1b) has an unformed root and slight wear, reflecting a young animal. A right mandible retaining M3 (*Bison* sp.; Unit Isi/Icl; Early Paleoindian; Lot 32OO1&2a) falls within Frison and Reher's (1970) Age Group V, suggesting an animal between 4.5-5.5 years old. No bison or bison-sized bone from the 1/8-inch sample yielded insightful age data.

Seasonality

Taxa identified from the site could have been available throughout the year. No specific indicators of seasonal occupation were observed. In Texas, turtles may be active throughout the year. While previously used by many archaeologists as seasonal indicators, many turtles are now recognized as cold-tolerant and remain active year-round (Holman and Andrews 1994). An examination of deer teeth proved inconclusive in distinguishing between winter and summer occupation. By six months of age, mandibular tooth eruption for Pm_2 through M_1 is complete (Ramsey and Shult n.d.:2). All mandibular deer specimens recovered from the site exhibit at least this much eruption. Therefore, based on deer dental evidence, a seasonal distinction could not be made.

Bone fusion data also proved inconclusive as a seasonal indicator. Overall, no specific indicators of seasonal use of the site were observed in these samples.

Bison from the site also proved inconclusive as a seasonal indicator. As discussed above, no fusion or age data were available from the 1/8-inch bison sample. The majority of bison from the 1/4-inch sample was at least four years of age and could not be used as a seasonal indicator. While a tooth from a relatively young bison was identified from the Early Paleoindian bone bed component (Unit Igl/Isi; Lot 31MM1b), it is not clear if this maxillary tooth represents a first or second molar. Since these teeth have differing eruption sequences, a seasonal interpretation cannot be made.

Animal Processing

The high degree of sample fragmentation and lack of detailed primary contextual control (resulting from prehistoric human disturbance at the site) prevent a thorough spatial study of animal processing and deposition at the Wilson-Leonard site, though a few observations can be made. Fauna from archaeological feature contexts are reported by taxon in Tables 33-12 and 33-13.

Butchering Patterns

Butchering is defined as the disarticulation of an animal carcass once the animal has been procured. The reconstruction of animal butchering usually focuses on two broad issues. The first centers on element and body part representation, the second on culturally induced modifications of the remains, including cut marks. Much of the impetus for studies of body part representation in archaeological assemblages stems from observations by Binford (1978) that people do not typically use entire animals, but rather, specific animal segments.

In this vein, an animal may be butchered at a kill site, with only select portions returned to a habitation site for consumption. Thus, element representation may shed light on butchering practices and/or site function. Artiodactyl elements commonly interpreted as high utility (in terms of meat, marrow, and grease), and therefore likely to be transported from kill sites, include the femur, tibia, sternum, ribs, and vertebrae (Binford 1978; Metcalfe and Jones 1988). Antler, carpals, tarsals, skulls, and metapodials generally rank lowest (Metcalfe and Jones 1988).

Zooarchaeologists, then, have commonly interpreted sites that consist primarily of high meat yielding bones as reflecting a gourmet butchering strategy in which only choice meat cuts were returned to camp. Sites yielding only low utility items have often been interpreted as representing butchering sites, where low choice items were left behind, while higher utility items were transported elsewhere. Sites showing a mixture of low and high utility portions are often considered to reflect the extensive use of carcasses. Recent

TABLE 33-12
Faunal Recovery by Archeological Feature, 1/4-inch Screens

Feature	Unit	Cultural Period	Taxon	Totals
BRM 1	IIIc	Archaic	Anura	1
BRM 1	IIIc	Archaic	Carnivora	1
BRM 1	IIIc	Archaic	Colubridae	1
BRM 1	IIIc	Archaic	Mammalia (Medium)	2
BRM 1	IIIc	Archaic	Mammalia (Medium/Large)	9
BRM 1	IIIc	Archaic	Mammalia (Micro)	2
BRM 1	IIIc	Archaic	Serpentes	1
BRM 1	IIIc	Archaic	Small/Medium Vertebrata	48
BRM 1	IIIc	Archaic	<i>Sylvilagus</i> sp.	2
BRM 1	IIIc	Archaic	Testudinata	3
BRM 1	IIIc	Archaic	Vertebrata	166
BRM 1	IIIc	Late Archaic	<i>Antilocapra/Odocoileus</i>	5
BRM 1	IIIc	Late Archaic	Colubridae	2
BRM 1	IIIc	Late Archaic	<i>Geomys</i> sp.	1
BRM 1	IIIc	Late Archaic	<i>Lepus californicus</i>	1
BRM 1	IIIc	Late Archaic	Mammalia (Large)	4
BRM 1	IIIc	Late Archaic	Mammalia (Medium)	3
BRM 1	IIIc	Late Archaic	Mammalia (Medium/Large)	242
BRM 1	IIIc	Late Archaic	Mammalia (Micro)	2
BRM 1	IIIc	Late Archaic	Mammalia (Small)	1
BRM 1	IIIc	Late Archaic	Medium/Large Vertebrata	2
BRM 1	IIIc	Late Archaic	<i>Odocoileus</i> sp.	7
BRM 1	IIIc	Late Archaic	Serpentes	1
BRM 1	IIIc	Late Archaic	Small vertebrate, class indeterminate	2
BRM 1	IIIc	Late Archaic	Small/Medium Vertebrata	53
BRM 1	IIIc	Late Archaic	<i>Sylvilagus</i> sp.	2
BRM 1	IIIc	Late Archaic	Testudinata	8
BRM 1	IIIc	Late Archaic	Vertebrata	473
BRM 1	IIIc	Late Archaic	Viperidae	2
BRM 1	IIIc	Late Archaic/Late Prehistoric	<i>Antilocapra/Odocoileus</i>	5
BRM 1	IIIc	Late Archaic/Late Prehistoric	Colubridae	2
BRM 1	IIIc	Late Archaic/Late Prehistoric	<i>Geomys</i> sp.	1
BRM 1	IIIc	Late Archaic/Late Prehistoric	Leporidae	1
BRM 1	IIIc	Late Archaic/Late Prehistoric	<i>Lepus californicus</i>	1
BRM 1	IIIc	Late Archaic/Late Prehistoric	Mammalia (Large)	5
BRM 1	IIIc	Late Archaic/Late Prehistoric	Mammalia (Medium)	1
BRM 1	IIIc	Late Archaic/Late Prehistoric	Mammalia (Medium/Large)	146
BRM 1	IIIc	Late Archaic/Late Prehistoric	Mammalia (Micro)	1
BRM 1	IIIc	Late Archaic/Late Prehistoric	Mammalia (Small)	2
BRM 1	IIIc	Late Archaic/Late Prehistoric	<i>Odocoileus</i> sp.	16
BRM 1	IIIc	Late Archaic/Late Prehistoric	Small/Medium Vertebrata	10
BRM 1	IIIc	Late Archaic/Late Prehistoric	<i>Sylvilagus</i> sp.	2
BRM 1	IIIc	Late Archaic/Late Prehistoric	Testudinata	3
BRM 1	IIIc	Late Archaic/Late Prehistoric	Vertebrata	860
184	II	Late Paleoindian	Small/Medium Vertebrata	6
184	II	Late Paleoindian	Vertebrata	12

Table 33-12, continued

Feature	Unit	Cultural Period	Taxon	Totals
201	IIIc	Late Archaic	Mammalia (Medium)	1
201	IIIc	Late Archaic	Mammalia (Medium/Large)	49
201	IIIc	Late Archaic	Mammalia (Small/Medium)	1
201	IIIc	Late Archaic	<i>Neotoma</i> sp.	1
201	IIIc	Late Archaic	<i>Odocoileus</i> sp.	2
201	IIIc	Late Archaic	Rodentia (Medium)	3
201	IIIc	Late Archaic	Small/Medium Vertebrata	14
201	IIIc	Late Archaic	Testudinata	2
201	IIIc	Late Archaic	Vertebrata	172
201	IIIc/FILL	Unassigned	Mammalia (Large)	1
201	IIIc/FILL	Unassigned	Mammalia (Medium/Large)	1
201/NON-	IIIc/FILL	Unassigned	Mammalia (Large)	1
201/NON-	IIIc/FILL	Unassigned	Mammalia (Medium/Large)	9
201/NON-	IIIc/FILL	Unassigned	Vertebrata	27
202	IIIc	Late Archaic/Late Prehistoric	<i>Antilocapra/Odocoileus</i>	2
202	IIIc	Late Archaic/Late Prehistoric	Colubridae	1
202	IIIc	Late Archaic/Late Prehistoric	Mammalia (Large)	1
202	IIIc	Late Archaic/Late Prehistoric	Mammalia (Medium/Large)	36
202	IIIc	Late Archaic/Late Prehistoric	Mammalia (Small)	1
202	IIIc	Late Archaic/Late Prehistoric	<i>Odocoileus</i> sp.	9
202	IIIc	Late Archaic/Late Prehistoric	Serpentes	1
202	IIIc	Late Archaic/Late Prehistoric	Small/Medium Vertebrata	7
202	IIIc	Late Archaic/Late Prehistoric	Testudinata	1
202	IIIc	Late Archaic/Late Prehistoric	Vertebrata	84
203	IIIb/c	Middle/Late Archaic	Mammalia (Medium/Large)	1
203	IIIb/c	Middle/Late Archaic	<i>Odocoileus</i> sp.	2
203	IIIb/c	Middle/Late Archaic	Small/Medium Vertebrata	2
203	IIIb/c	Middle/Late Archaic	Vertebrata	21
205	IIIb/c	Late Archaic	<i>Antilocapra americana</i>	1
205	IIIb/c	Late Archaic	<i>Antilocapra/Odocoileus</i>	1
205	IIIb/c	Late Archaic	Leporidae	1
205	IIIb/c	Late Archaic	Mammalia (Large)	2
205	IIIb/c	Late Archaic	Mammalia (Medium/Large)	32
205	IIIb/c	Late Archaic	Mammalia (Small)	1
205	IIIb/c	Late Archaic	Mammalia (Small/Medium)	3
205	IIIb/c	Late Archaic	<i>Odocoileus</i> sp.	4
205	IIIb/c	Late Archaic	Rodentia	1
205	IIIb/c	Late Archaic	Small/Medium Vertebrata	17
205	IIIb/c	Late Archaic	Vertebrata	283
206	IIIc	Late Archaic	<i>Odocoileus</i> sp.	3
206	IIIc	Middle/Late Archaic	Mammalia (Medium/Large)	1
206	IIIc	Middle/Late Archaic	Medium/Large Vertebrata	1
207	IIIc	Late Archaic	Mammalia (Large)	8
207	IIIc	Late Archaic	Mammalia (Medium/Large)	5
207	IIIc	Late Archaic	<i>Odocoileus</i> sp.	1
210	IIIb	Middle/Late Archaic	Leporidae	1
210	IIIb	Middle/Late Archaic	<i>Lepus californicus</i>	1

Table 33-12, *continued*

Feature	Unit	Cultural Period	Taxon	Totals
210	IIIb	Middle/Late Archaic	Mammalia (Small)	1
210	IIIb	Middle/Late Archaic	Medium/Large Vertebrata	1
210	IIIb	Middle/Late Archaic	Small/Medium Vertebrata	10
210	IIIb	Middle/Late Archaic	<i>Sylvilagus</i> sp.	1
210	IIIb	Middle/Late Archaic	Vertebrata	43
210	IIIb/c	Middle/Late Archaic	Leporidae	1
210	IIIb/c	Middle/Late Archaic	Mammalia (Large)	1
210	IIIb/c	Middle/Late Archaic	Medium/Large Vertebrata	3
210	IIIb/c	Middle/Late Archaic	Serpentes	1
210	IIIb/c	Middle/Late Archaic	Vertebrata	20
212	IIIb	Middle Archaic	Artiodactyla	4
212	IIIb	Middle Archaic	Mammalia (Medium)	1
212	IIIb	Middle Archaic	Mammalia (Medium/Large)	2
212	IIIb	Middle Archaic	Mammalia (Small)	1
212	IIIb	Middle Archaic	Medium/Large Vertebrata	7
212	IIIb	Middle Archaic	<i>Neotoma</i> sp.	1
212	IIIb	Middle Archaic	Vertebrata	41
213	IIIa/b	Early Archaic	<i>Lepus californicus</i>	1
213	IIIb	Early/Middle Archaic	<i>Lepus californicus</i>	1
213	IIIb	Early/Middle Archaic	Small/Medium Vertebrata	2
213	IIIb	Early/Middle Archaic	Vertebrata	9
213	IIIb	Middle Archaic	Colubridae	1
213	IIIb	Middle Archaic	<i>Lepus californicus</i>	1
213	IIIb	Middle Archaic	Mammalia (Medium)	1
213	IIIb	Middle Archaic	Medium/Large Vertebrata	1
213	IIIb	Middle Archaic	Vertebrata	2
214	IIIb	Middle Archaic	<i>Geomys</i> sp.	1
214	IIIb	Middle Archaic	Leporidae	2
214	IIIb	Middle Archaic	<i>Lepus californicus</i>	3
214	IIIb	Middle Archaic	Mammalia (Medium)	2
214	IIIb	Middle Archaic	Mammalia (Medium/Large)	2
214	IIIb	Middle Archaic	Mammalia (Small)	2
214	IIIb	Middle Archaic	Mammalia (Small/Medium)	1
214	IIIb	Middle Archaic	<i>Neotoma</i> sp.	4
214	IIIb	Middle Archaic	Serpentes	2
214	IIIb	Middle Archaic	Small/Medium Vertebrata	3
214	IIIb	Middle Archaic	<i>Sylvilagus</i> sp.	1
214	IIIb	Middle Archaic	Testudinata	3
214	IIIb	Middle Archaic	Vertebrata	51
214?	IIIb	Middle Archaic	Mammalia (Medium)	1
214?	IIIb	Middle Archaic	Serpentes	1
214?	IIIb	Middle Archaic	Small/Medium Vertebrata	2
214?	IIIb	Middle Archaic	Vertebrata	14
217	IIIa	Early Archaic	Leporidae	1
217	IIIa	Early Archaic	Mammalia (Medium/Large)	6
217	IIIa	Early Archaic	Mammalia (Small)	1
217	IIIa	Early Archaic	<i>Odocoileus</i> sp.	1

Table 33-12, *continued*

Feature	Unit	Cultural Period	Taxon	Totals
217	IIIa	Early Archaic	Serpentes	1
217	IIIa	Early Archaic	Small/Medium Vertebrata	3
217	IIIa	Early Archaic	<i>Sylvilagus</i> sp.	1
217	IIIa	Early Archaic	Vertebrata	27
220	IIIa/b	Early Archaic	Small/Medium Vertebrata	1
220	IIIa/b	Early Archaic	<i>Sylvilagus</i> sp.	1
220	IIIa/b	Early Archaic	Vertebrata	4
221	IIIa/b	Early Archaic	Small/Medium Vertebrata	1
222	IIIa	Early Archaic	Vertebrata	1
223	IIIa	Early Archaic	Leporidae	1
223	IIIa	Early Archaic	Medium/Large Vertebrata	4
223	IIIa	Early Archaic	Small/Medium Vertebrata	2
223	IIIa	Early Archaic	Testudinata	3
223	IIIa	Early Archaic	Vertebrata	24
225	IIIa	Early Archaic	Mammalia (Medium/Large)	1
225	IIIa	Early Archaic	Small/Medium Vertebrata	7
225	IIIa	Early Archaic	Vertebrata	3
226	II/IIIa	Late Paleoindian/Early Archaic	<i>Sylvilagus</i> sp.	1
226	II/IIIa	Late Paleoindian/Early Archaic	Vertebrata	1
227	II	Late Paleoindian	Leporidae	1
227	II	Late Paleoindian	<i>Lepus californicus</i>	1
227	II	Late Paleoindian	Mammalia (Micro)	2
227	II	Late Paleoindian	Medium/Large Vertebrata	2
227	II	Late Paleoindian	Serpentes	1
227	II	Late Paleoindian	Small vertebrate, class indeterminate	2
227	II	Late Paleoindian	Small/Medium Vertebrata	10
227	II	Late Paleoindian	<i>Sylvilagus</i> sp.	1
227	II	Late Paleoindian	Vertebrata	49
228	IIIa	Early Archaic	<i>Lepus californicus</i>	1
228	IIIa	Early Archaic	Vertebrata	10
230	IIIa	Early Archaic	Mammalia (Medium/Large)	1
230	IIIa	Early Archaic	Medium/Large Vertebrata	1
230	IIIa	Early Archaic	Vertebrata	4
231	II	Late Paleoindian	Mammalia (Medium/Large)	1
231	II	Late Paleoindian	Small/Medium Vertebrata	3
231	II	Late Paleoindian	Vertebrata	4
231	II/IIIa	Late Paleoindian/Early Archaic	Anura	1
231	II/IIIa	Late Paleoindian/Early Archaic	Carnivora	1
231	II/IIIa	Late Paleoindian/Early Archaic	cf. <i>Lepus californicus</i>	1
231	II/IIIa	Late Paleoindian/Early Archaic	Colubridae	1
231	II/IIIa	Late Paleoindian/Early Archaic	Leporidae	1
231	II/IIIa	Late Paleoindian/Early Archaic	<i>Lepus californicus</i>	4
231	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Large)	3
231	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium)	5
231	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium/Large)	20
231	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Micro)	3
231	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Small)	5
231	II/IIIa	Late Paleoindian/Early Archaic	Medium/Large Vertebrata	8

Table 33-12, *continued*

Feature	Unit	Cultural Period	Taxon	Total
231	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Small/Medium)	1
231	II/IIIa	Late Paleoindian/Early Archaic	Osteichthyes (Small)	1
231	II/IIIa	Late Paleoindian/Early Archaic	Serpentes	1
231	II/IIIa	Late Paleoindian/Early Archaic	Small/Medium Vertebrata	124
231	II/IIIa	Late Paleoindian/Early Archaic	<i>Sylvilagus</i> sp.	7
231	II/IIIa	Late Paleoindian/Early Archaic	Testudinata	3
231	II/IIIa	Late Paleoindian/Early Archaic	Vertebrata	347
231	IIIa	Early Archaic	<i>Antilocapra/Odocoileus</i>	1
231	IIIa	Early Archaic	Carnivora	1
231	IIIa	Early Archaic	Colubridae	5
231	IIIa	Early Archaic	Cricetidae (Medium)	1
231	IIIa	Early Archaic	<i>Geomys</i> sp.	7
231	IIIa	Early Archaic	Kinosternidae	1
231	IIIa	Early Archaic	Kinosternon sp.	1
231	IIIa	Early Archaic	Leporidae	13
231	IIIa	Early Archaic	<i>Lepus californicus</i>	2
231	IIIa	Early Archaic	Mammalia (Large)	7
231	IIIa	Early Archaic	Mammalia (Medium)	10
231	IIIa	Early Archaic	Mammalia (Medium/Large)	84
231	IIIa	Early Archaic	Mammalia (Micro)	4
231	IIIa	Early Archaic	Mammalia (Small)	15
231	IIIa	Early Archaic	Medium vertebrate, class indeterminate	2
231	IIIa	Early Archaic	Medium/Large Vertebrata	28
231	IIIa	Early Archaic	<i>Neotoma</i> sp.	5
231	IIIa	Early Archaic	<i>Odocoileus</i> sp.	1
231	IIIa	Early Archaic	Osteichthyes (Small)	1
231	IIIa	Early Archaic	Rodentia (Medium)	1
231	IIIa	Early Archaic	Serpentes	1
231	IIIa	Early Archaic	Small vertebrate, class indeterminate	7
231	IIIa	Early Archaic	Small/Medium Vertebrata	235
231	IIIa	Early Archaic	<i>Sylvilagus</i> sp.	5
231	IIIa	Early Archaic	Testudinata	12
231	IIIa	Early Archaic	Vertebrata	1064
231/245	II/IIIa	Late Paleoindian/Early Archaic	Colubridae	1
231/245	II/IIIa	Late Paleoindian/Early Archaic	<i>Geomys</i> sp.	2
231/245	II/IIIa	Late Paleoindian/Early Archaic	Leporidae	1
231/245	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Large)	1
231/245	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium)	2
231/245	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium/Large)	7
231/245	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Small)	3
231/245	II/IIIa	Late Paleoindian/Early Archaic	Rodentia (Small/Medium)	1
231/245	II/IIIa	Late Paleoindian/Early Archaic	Serpentes	1
231/245	II/IIIa	Late Paleoindian/Early Archaic	Small/Medium Vertebrata	59
231/245	II/IIIa	Late Paleoindian/Early Archaic	<i>Sylvilagus</i> sp.	3
231/245	II/IIIa	Late Paleoindian/Early Archaic	Testudinata	4
231/245	II/IIIa	Late Paleoindian/Early Archaic	Vertebrata	160
231/245	IIIa	Early Archaic	Leporidae	1

Table 33-12, *continued*

Feature	Unit	Cultural Period	Taxon	Totals
231/245	IIIa	Early Archaic	<i>Lepus californicus</i>	1
231/245	IIIa	Early Archaic	Mammalia (Medium)	2
231/245	IIIa	Early Archaic	Mammalia (Medium/Large)	10
231/245	IIIa	Early Archaic	Mammalia (Small)	4
231/245	IIIa	Early Archaic	Medium/Large Vertebrata	6
231/245	IIIa	Early Archaic	<i>Neotoma</i> sp.	1
231/245	IIIa	Early Archaic	Osteichthyes (Small)	3
231/245	IIIa	Early Archaic	<i>Sigmodon hispidus</i>	2
231/245	IIIa	Early Archaic	Small vertebrate, class indeterminate	3
231/245	IIIa	Early Archaic	Small/Medium Vertebrata	33
231/245	IIIa	Early Archaic	<i>Sylvilagus</i> sp.	1
231/245	IIIa	Early Archaic	Testudinata	4
231/245	IIIa	Early Archaic	Vertebrata	199
234	Isi-c/II	Late Paleoindian	<i>Geomys</i> sp.	1
234	Isi-c/II	Late Paleoindian	Mammalia (Large)	1
234	Isi-c/II	Late Paleoindian	Mammalia (Medium/Large)	1
234	Isi-c/II	Late Paleoindian	Mammalia (Small)	2
234	Isi-c/II	Late Paleoindian	Small vertebrate, class indeterminate	1
234	Isi-c/II	Late Paleoindian	Small/Medium Vertebrata	16
234	Isi-c/II	Late Paleoindian	Vertebrata	65
235	Isi-c/II	Late Paleoindian	Small/Medium Vertebrata	5
235	Isi-c/II	Late Paleoindian	Vertebrata	3
236	II	Late Paleoindian	Small/Medium Vertebrata	5
236	II	Late Paleoindian	Vertebrata	7
238	Isi-c	Late Paleoindian	Mammalia (Large)	1
238	Isi-c	Late Paleoindian	Medium/Large Vertebrata	1
238	Isi-c	Late Paleoindian	Small/Medium Vertebrata	6
238	Isi-c	Late Paleoindian	Vertebrata	27
239	II	Late Paleoindian	Leporidae	1
239	II	Late Paleoindian	Medium/Large Vertebrata	5
239	II	Late Paleoindian	Small/Medium Vertebrata	7
239	II	Late Paleoindian	<i>Sylvilagus</i> sp.	1
239	II	Late Paleoindian	Vertebrata	31
240	II	Late Paleoindian	Small/Medium Vertebrata	6
240	II	Late Paleoindian	Vertebrata	16
240	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium/Large)	1
240	II/IIIa	Late Paleoindian/Early Archaic	Small/Medium Vertebrata	1
240	II/IIIa	Late Paleoindian/Early Archaic	Vertebrata	16
245	II/IIIa	Late Paleoindian/Early Archaic	<i>Geomys</i> sp.	1
245	II/IIIa	Late Paleoindian/Early Archaic	Leporidae	8
245	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium/Large)	1
245	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Small)	3
245	II/IIIa	Late Paleoindian/Early Archaic	Medium/Large Vertebrata	4
245	II/IIIa	Late Paleoindian/Early Archaic	Osteichthyes (Small)	1
245	II/IIIa	Late Paleoindian/Early Archaic	Small/Medium Vertebrata	33
245	II/IIIa	Late Paleoindian/Early Archaic	<i>Sylvilagus</i> sp.	1
245	II/IIIa	Late Paleoindian/Early Archaic	Testudinata	2

Table 33-12, *continued*

Feature	Unit	Cultural Period	Taxon	Totals
245	II/IIIa	Late Paleoindian/Early Archaic	Vertebrata	78
245	IIIa	Early Archaic	Artiodactyla	1
245	IIIa	Early Archaic	<i>Geomys</i> sp.	1
245	IIIa	Early Archaic	Leporidae	2
245	IIIa	Early Archaic	<i>Lepus californicus</i>	1
245	IIIa	Early Archaic	Mammalia (Medium)	1
245	IIIa	Early Archaic	Mammalia (Medium/Large)	6
245	IIIa	Early Archaic	Mammalia (Small)	1
245	IIIa	Early Archaic	<i>Sciurus</i> sp.	1
245	IIIa	Early Archaic	Small/Medium Vertebrata	27
245	IIIa	Early Archaic	<i>Sylvilagus</i> sp.	1
245	IIIa	Early Archaic	Testudinata	3
245	IIIa	Early Archaic	Vertebrata	61
247	II	Late Paleoindian	Small/Medium Vertebrata	2
247	II	Late Paleoindian	Vertebrata	2
248	II	Late Paleoindian	Mammalia (Micro)	1
248	II	Late Paleoindian	Mammalia (Small)	1
248	II	Late Paleoindian	Vertebrata	8
248	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium/Large)	1
248	II/IIIa	Late Paleoindian/Early Archaic	Small/Medium Vertebrata	1
248	II/IIIa	Late Paleoindian/Early Archaic	Vertebrata	3
249	II	Late Paleoindian	Osteichthyes (Small)	1
249	II	Late Paleoindian	Small/Medium Vertebrata	7
249	II	Late Paleoindian	<i>Sylvilagus</i> sp.	1
249	II	Late Paleoindian	Testudinata	1
249	II	Late Paleoindian	Vertebrata	13
249	II/IIIa	Late Paleoindian/Early Archaic	Artiodactyla	1
249	II/IIIa	Late Paleoindian/Early Archaic	Carnivora	1
249	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium/Large)	1
249	II/IIIa	Late Paleoindian/Early Archaic	Small/Medium Vertebrata	1
249	II/IIIa	Late Paleoindian/Early Archaic	Vertebrata	8
254	II	Late Paleoindian	Mammalia (Medium/Large)	4
254	II	Late Paleoindian	Small/Medium Vertebrata	5
254	II	Late Paleoindian	Vertebrata	8
258	II/IIIa	Late Paleoindian/Early Archaic	Vertebrata	3
259	Isi/Icl	Early Paleoindian	Vertebrata	8
260	Isi-c	Late Paleoindian	Mammalia (Large)	1
260	Isi-c	Late Paleoindian	Small/Medium Vertebrata	1
262	Isi/Icl	Early Paleoindian	Leporidae	3
262	Isi/Icl	Early Paleoindian	Mammalia (Large)	2
262	Isi/Icl	Early Paleoindian	Mammalia (Medium/Large)	8
262	Isi/Icl	Early Paleoindian	Medium/Large Vertebrata	11
262	Isi/Icl	Early Paleoindian	Small/Medium Vertebrata	1
262	Isi/Icl	Early Paleoindian	Vertebrata	25

TABLE 33-13
Faunal Recovery by Archeological Feature, 1/8-inch Screens

Feature	Unit	Cultural Period	Taxon	Totals
BRM1	IIIb/c	Early/Middle Archaic	<i>Antilocapra/Odocoileus</i>	4
BRM1	IIIb/c	Early/Middle Archaic	Artiodactyla	1
BRM1	IIIb/c	Early/Middle Archaic	Artiodactyla (Large)	1
BRM1	IIIb/c	Early/Middle Archaic	Leporidae	1
BRM1	IIIb/c	Early/Middle Archaic	Mammalia (Large)	11
BRM1	IIIb/c	Early/Middle Archaic	Mammalia (Medium)	1
BRM1	IIIb/c	Early/Middle Archaic	Mammalia (Medium/Large)	20
BRM1	IIIb/c	Early/Middle Archaic	<i>Odocoileus</i> sp.	1
BRM1	IIIb/c	Early/Middle Archaic	Small/Medium Vertebrata	3
BRM1	IIIb/c	Early/Middle Archaic	Testudinata	5
BRM1	IIIb/c	Early/Middle Archaic	Vertebrata	36
BRM1	IIIc	Archaic	<i>Antilocapra/Odocoileus</i>	3
BRM1	IIIc	Archaic	Colubridae	1
BRM1	IIIc	Archaic	Mammalia (Large)	2
BRM1	IIIc	Archaic	Mammalia (Medium/Large)	6
BRM1	IIIc	Archaic	Vertebrata	15
BRM1	IIIc	Early/Middle Archaic	<i>Antilocapra/Odocoileus</i>	1
BRM1	IIIc	Early/Middle Archaic	Mammalia (Large)	1
BRM1	IIIc	Early/Middle Archaic	Mammalia (Medium/Large)	2
BRM1	IIIc	Early/Middle Archaic	<i>Odocoileus</i> sp.	1
BRM1	IIIc	Early/Middle Archaic	Vertebrata	6
BRM1	IIIc	Late Archaic	<i>Antilocapra americana</i>	1
BRM1	IIIc	Late Archaic	<i>Antilocapra/Odocoileus</i>	13
BRM1	IIIc	Late Archaic	Artiodactyla	3
BRM1	IIIc	Late Archaic	cf. <i>Antilocapra/Odocoileus</i>	1
BRM1	IIIc	Late Archaic	Emydidae	1
BRM1	IIIc	Late Archaic	Leporidae	1
BRM1	IIIc	Late Archaic	Mammalia (Large)	18
BRM1	IIIc	Late Archaic	Mammalia (Medium)	1
BRM1	IIIc	Late Archaic	Mammalia (Medium/Large)	48
BRM1	IIIc	Late Archaic	Medium/Large Vertebrata	8
BRM1	IIIc	Late Archaic	<i>Odocoileus</i> sp.	3
BRM1	IIIc	Late Archaic	Testudinata	1
BRM1	IIIc	Late Archaic	Vertebrata	316
BRM1	IIIc	Late Archaic/Late Prehistoric	<i>Antilocapra/Odocoileus</i>	10
BRM1	IIIc	Late Archaic/Late Prehistoric	Artiodactyla	3
BRM1	IIIc	Late Archaic/Late Prehistoric	Kinosternidae	1
BRM1	IIIc	Late Archaic/Late Prehistoric	Mammalia (Large)	47
BRM1	IIIc	Late Archaic/Late Prehistoric	Mammalia (Medium)	3
BRM1	IIIc	Late Archaic/Late Prehistoric	Mammalia (Medium/Large)	69
BRM1	IIIc	Late Archaic/Late Prehistoric	Mustelidae	4
BRM1	IIIc	Late Archaic/Late Prehistoric	<i>Odocoileus</i> sp.	11
BRM1	IIIc	Late Archaic/Late Prehistoric	Testudinata	4
BRM1	IIIc	Late Archaic/Late Prehistoric	Vertebrata	491
BRM1	IIIc	Middle/Late Archaic	<i>Antilocapra/Odocoileus</i>	1
BRM1	IIIc	Middle/Late Archaic	cf. <i>Odocoileus</i> sp.	1
BRM1	IIIc	Middle/Late Archaic	Leporidae	1

Table 33-13, *continued*

Feature	Unit	Cultural Period	Taxon	Totals
BRM1	IIIc	Middle/Late Archaic	<i>Lepus californicus</i>	1
BRM1	IIIc	Middle/Late Archaic	Mammalia (Large)	1
BRM1	IIIc	Middle/Late Archaic	Mammalia (Medium/Large)	21
BRM1	IIIc	Middle/Late Archaic	Medium/Large Vertebrata	7
BRM1	IIIc	Middle/Late Archaic	<i>Sigmodon hispidus</i>	5
BRM1	IIIc	Middle/Late Archaic	Testudinata	1
BRM1	IIIc	Middle/Late Archaic	Vertebrata	73
BRM1	IIIc/POT	Archaic	<i>Antilocapra/Odocoileus</i>	1
BRM1	IIIc/POT	Archaic	cf. <i>Odocoileus</i> sp.	1
BRM1	IIIc/POT	Archaic	Mammalia (Large)	1
BRM1	IIIc/POT	Archaic	Mammalia (Medium/Large)	4
BRM1	IIIc/POT	Archaic	Medium/Large Vertebrata	1
BRM1	IIIc/POT	Archaic	Testudinata	2
BRM1	IIIc/POT	Archaic	Vertebrata	14
BRM1	IIIc/POT	Archaic/Late Prehistoric	<i>Antilocapra/Odocoileus</i>	12
BRM1	IIIc/POT	Archaic/Late Prehistoric	Artiodactyla	7
BRM1	IIIc/POT	Archaic/Late Prehistoric	Mammalia (Large)	10
BRM1	IIIc/POT	Archaic/Late Prehistoric	Mammalia (Medium)	1
BRM1	IIIc/POT	Archaic/Late Prehistoric	Mammalia (Medium/Large)	31
BRM1	IIIc/POT	Archaic/Late Prehistoric	<i>Odocoileus</i> sp.	2
BRM1	IIIc/POT	Archaic/Late Prehistoric	Serpentes	1
BRM1	IIIc/POT	Archaic/Late Prehistoric	Testudinata	2
BRM1	IIIc/POT	Archaic/Late Prehistoric	Vertebrata	172
BRM1	Y/IIIb/c	Archaic	Artiodactyla	2
BRM1	Y/IIIb/c	Archaic	Mammalia (Medium)	1
BRM1	Y/IIIb/c	Archaic	Mammalia (Medium/Large)	3
BRM1	Y/IIIb/c	Archaic	<i>Odocoileus</i> sp.	5
BRM1	Y/IIIb/c	Archaic	Testudinata	2
BRM1	Y/IIIb/c	Archaic	Vertebrata	12
BRM1	Y/IIIb/c	Early/Middle Archaic	<i>Sylvilagus</i> sp.	1
BRM1	Y/IIIb/c	Early/Middle Archaic	Vertebrata	2
BRM1	Y/IIIc	Archaic	Mammalia (Medium/Large)	4
BRM1	Y/IIIc	Archaic	<i>Odocoileus</i> sp.	2
BRM1	Y/IIIc	Archaic	Vertebrata	8
BRM1	Y/IIIc	Early/Middle Archaic	<i>Antilocapra/Odocoileus</i>	1
BRM1	Y/IIIc	Early/Middle Archaic	Artiodactyla	1
BRM1	Y/IIIc	Early/Middle Archaic	<i>Canis</i> sp.	1
BRM1	Y/IIIc	Early/Middle Archaic	cf. Aves (Medium)	1
BRM1	Y/IIIc	Early/Middle Archaic	<i>Lepus californicus</i>	1
BRM1	Y/IIIc	Early/Middle Archaic	Mammalia (Large)	4
BRM1	Y/IIIc	Early/Middle Archaic	Mammalia (Medium/Large)	13
BRM1	Y/IIIc	Early/Middle Archaic	Medium/Large Vertebrata	13
BRM1	Y/IIIc	Early/Middle Archaic	Small/Medium Vertebrata	1
BRM1	Y/IIIc	Early/Middle Archaic	Vertebrata	33
BRM1	Y/IIIc	Middle/Late Archaic	Mammalia (Medium/Large)	1
BRM1	Y/IIIc	Middle/Late Archaic	Vertebrata	4
BRM2	IIIc	Early/Middle Archaic	Mammalia (Large)	1
BRM2	IIIc	Early/Middle Archaic	Mammalia (Medium/Large)	2

Table 33-13, continued

Feature	Unit	Cultural Period	Taxon	Total
BRM2	IIIc	Early/Middle Archaic	<i>Odocoileus</i> sp.	1
BRM2	IIIc	Early/Middle Archaic	Testudinata	3
BRM2	IIIc	Early/Middle Archaic	Vertebrata	25
BRM2	IIIc	Middle Archaic	<i>Antilocapra/Odocoileus</i>	2
BRM2	IIIc	Middle Archaic	Leporidae	8
BRM2	IIIc	Middle Archaic	Mammalia (Large)	5
BRM2	IIIc	Middle Archaic	Mammalia (Medium)	1
BRM2	IIIc	Middle Archaic	Mammalia (Medium/Large)	15
BRM2	IIIc	Middle Archaic	<i>Odocoileus</i> sp.	2
BRM2	IIIc	Middle Archaic	Small/Medium Vertebrata	1
BRM2	IIIc	Middle Archaic	Testudinata	1
BRM2	IIIc	Middle Archaic	Vertebrata	56
BRM2	IIIc	Middle/Late Archaic	Mammalia (Medium/Large)	1
BRM2	IIIc	Middle/Late Archaic	Vertebrata	3
104	X	Early Archaic	Mammalia (Medium/Large)	1
104	X	Early Archaic	Medium/Large Vertebrata	1
104	X	Early Archaic	Vertebrata	2
104	X	Late Paleoindian/Early Archaic	<i>Antilocapra/Odocoileus</i>	1
104	X	Late Paleoindian/Early Archaic	Mammalia (Medium/Large)	2
104	X	Late Paleoindian/Early Archaic	Medium/Large Vertebrata	2
104	X	Late Paleoindian/Early Archaic	Small/Medium Vertebrata	1
104	X	Late Paleoindian/Early Archaic	Testudinata	1
104	X	Late Paleoindian/Early Archaic	Vertebrata	5
123	IIIa	Early Archaic	Mammalia (Medium/Large)	1
124	IIIa	Early Archaic	Mammalia (Medium/Large)	7
124	IIIa	Early Archaic	Medium/Large Vertebrata	2
124	IIIa	Early Archaic	Small/Medium Vertebrata	1
124	IIIa	Early Archaic	Testudinata	1
124	IIIa	Early Archaic	Vertebrata	14
140	IIIa	Early Archaic	Vertebrata	1
146	II	Late Paleoindian	Vertebrata	2
146	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium/Large)	2
146	II/IIIa	Late Paleoindian/Early Archaic	Medium/Large Vertebrata	1
150	II/IIIa	Early Archaic	Vertebrata	1
154	I	Paleoindian	Vertebrata	2
155	II	Late Paleoindian	Mammalia (Large)	8
157	II	Late Paleoindian	Carnivora	1
157	II	Late Paleoindian	Mammalia (Medium/Large)	4
157	II	Late Paleoindian	Small/Medium Vertebrata	1
157	II	Late Paleoindian	Vertebrata	5
161	Id/II	Late Paleoindian	Medium/Large Vertebrata	1
163	Isi-c/Id	Late Paleoindian	<i>Antilocapra/Odocoileus</i>	1
163	Isi-c/Id	Late Paleoindian	Mammalia (Medium)	1
163	Isi-c/Id	Late Paleoindian	Mammalia (Medium/Large)	2
163	Isi-c/Id	Late Paleoindian	Medium/Large Vertebrata	8
163	Isi-c/Id	Late Paleoindian	Small/Medium Vertebrata	4
163	Isi-c/Id	Late Paleoindian	<i>Sylvilagus</i> sp.	1
163	Isi-c/Id	Late Paleoindian	Testudinata	2

Table 33-13, *continued*

Feature	Unit	Cultural Period	Taxon	Totals
163	Isi-c/Id	Late Paleoindian	Vertebrata	34
164	II	Late Paleoindian	Vertebrata	1
166	I	Paleoindian	Medium/Large Vertebrata	1
166	I	Paleoindian	Small/Medium Vertebrata	1
166	I	Paleoindian	Vertebrata	19
168	Isi-c	Late Paleoindian	Vertebrata	1
169	Isi-c	Late Paleoindian	Vertebrata	1
169	Isi/Isi-c	Paleoindian	Mammalia (Medium)	1
169	Isi/Isi-c	Paleoindian	Vertebrata	1
17	X	Early Archaic	Mammalia (Medium)	1
17	X	Early Archaic	Mammalia (Medium/Large)	4
17	X	Early Archaic	Rodentia (Small/Medium)	1
17	X	Early Archaic	Vertebrata	2
170	Isi	Early Paleoindian	Large vertebrate, class indeterminate	2
170	Isi	Early Paleoindian	Mammalia (Medium/Large)	30
170	Isi	Early Paleoindian	Mammalia (Very large)	2
170	Isi	Early Paleoindian	Vertebrata	29
173	IIIc	Late Archaic	<i>Antilocapra/Odocoileus</i>	6
173	IIIc	Late Archaic	Artiodactyla	1
173	IIIc	Late Archaic	Artiodactyla (Medium)	4
173	IIIc	Late Archaic	Carnivora	1
173	IIIc	Late Archaic	cf. Canidae	1
173	IIIc	Late Archaic	Leporidae	2
173	IIIc	Late Archaic	Mammalia (Large)	14
173	IIIc	Late Archaic	Mammalia (Medium/Large)	71
173	IIIc	Late Archaic	Medium/Large Vertebrata	16
173	IIIc	Late Archaic	<i>Odocoileus</i> sp.	3
173	IIIc	Late Archaic	<i>Sigmodon hispidus</i>	3
173	IIIc	Late Archaic	Small/Medium Vertebrata	1
173	IIIc	Late Archaic	Vertebrata	140
175	IcI/Isi	Paleoindian	Vertebrata	14
175	IcI/D	Early Paleoindian	Vertebrata	6
177	IIIb/c	Middle Archaic	Mammalia (Medium/Large)	2
181	II/IIIa	Late Paleoindian/Early Archaic	<i>Lepus californicus</i>	1
181	IIIa	Early Archaic	Mammalia (Medium/Large)	5
181	IIIa	Early Archaic	Small/Medium Vertebrata	3
181	IIIa	Early Archaic	Vertebrata	13
181?	IIIa	Early Archaic	Medium/Large Vertebrata	1
181?185?	II/IIIa	Late Paleoindian/Early Archaic	Mammalia (Medium/Large)	1
186	II	Late Paleoindian	Mammalia (Medium)	1
187	IcI/Isi-c	Paleoindian	Vertebrata	1
188?	Isi	Early Paleoindian	Mammalia (Large)	1
4	X/Y	Early Archaic	Vertebrata	4
4	Y	Early Archaic	Vertebrata	5
50	IIIb	Early Archaic	Medium/Large Vertebrata	4
50	IIIb	Early Archaic	Small/Medium Vertebrata	1
50	IIIb	Early Archaic	Vertebrata	2
7	IIIc	Late Archaic/Late Prehistoric	<i>Antilocapra/Odocoileus</i>	1

Table 33-13, *continued*

Feature	Unit	Cultural Period	Taxon	Total
7	IIIc	Late Archaic/Late Prehistoric	Artiodactyla	2
7	IIIc	Late Archaic/Late Prehistoric	Mammalia (Large)	1
7	IIIc	Late Archaic/Late Prehistoric	Mammalia (Medium/Large)	4
7	IIIc	Late Archaic/Late Prehistoric	Vertebrata	57
8	X/IIIb	Early Archaic	Leporidae	1
8	X/IIIb	Early Archaic	Mammalia (Large)	1
8	X/IIIb	Early Archaic	Mammalia (Medium/Large)	1
8	X/IIIb	Early Archaic	Medium/Large Vertebrata	1
8	X/IIIb	Early Archaic	Serpentes	1
8	X/IIIb	Early Archaic	Small/Medium Vertebrata	2
8	X/IIIb	Early Archaic	Testudinata	3
8	X/IIIb	Early Archaic	Vertebrata	12
8	X/Y	Early Archaic	Mammalia (Medium/Large)	1
8	X/Y	Early Archaic	Vertebrata	4
8	X/Y/IIIb	Early Archaic	<i>Antilocapra/Odocoileus</i>	1
8	X/Y/IIIb	Early Archaic	cf. <i>Antilocapra/Odocoileus</i>	1
8	X/Y/IIIb	Early Archaic	Leporidae	1
8	X/Y/IIIb	Early Archaic	Mammalia (Large)	1
8	X/Y/IIIb	Early Archaic	Mammalia (Medium/Large)	4
8	X/Y/IIIb	Early Archaic	Medium/Large Vertebrata	7
8	X/Y/IIIb	Early Archaic	Vertebrata	27

taphonomic research, however, has questioned these assumptions.

Zooarcheologists, then, have commonly interpreted sites that consist primarily of high meat yielding bones as reflecting a gourmet butchering strategy in which only choice meat cuts were returned to camp. Sites yielding only low utility items have often been interpreted as representing butchering sites, where low choice items were left behind, while higher utility items were transported elsewhere. Sites showing a mixture of low and high utility portions are often considered to reflect the extensive use of carcasses. Recent taphonomic research, however, has questioned these assumptions.

Lyman (1982b, 1984, 1985, 1993) and Kreutzer (1992) have shown that differential preservation of dense skeletal elements can create assemblages that are dominated by low utility elements in both deer and bison bone assemblages. Lyman noted that skeletal elements with high food value tend to have low structural density, while low food value elements have high structural density. Since low food value elements tend to preserve better than high food value elements, assemblages with numerous low utility bones may reflect preservation factors more so than butchering practices.

Thus, from sites where preservation is a clear biasing factor, like Wilson-Leonard, a reconstruction of butchering practices from element representation is problematic. As previously discussed, the 1/4-inch sample yielded the largest artiodactyl counts from the site, with an entire range of elements present (see Table 33-5). The only elements conspicu-

ously absent from the sample are ribs. Mammal ribs were present at the site, but were highly fragmented. Thus, artiodactyl ribs probably fall within the counts for medium/large mammal indeterminate. Interestingly, low utility elements dominate the assemblage. Phalanges, podials, and sesamoids alone constitute 41% (n=187) of the artiodactyl elements in the 1/4-inch assemblage. These are the thick dense bones of the lower forelimbs and hindlimbs. From the range of elements present, it appears that entire carcasses of at least some artiodactyls were returned to the site. However, the high frequency of dense, low food utility elements suggests that density-mediated attrition may have biased the assemblage.

A second line of evidence for animal processing strategies usually comes from cut marks on bones. Cut marks are caused by stone tools during animal dismemberment and disarticulation. Butchering practices could not be interpreted through cut mark evidence on the Wilson-Leonard sample since few examples were noted. Only 21 were noted in the 1/4-inch sample. These include cuts on indeterminate vertebrate (n=5), indeterminate mammal (n=8), indeterminate artiodactyl (n=1), pronghorn/deer (n=5), and deer (n=2). These cut marks are typical of carcass disarticulation, though the small cut mark sample prevents a detailed analysis of the disarticulation sequence. Only two cut marks were observed in the 1/8-inch sample. Both were on indeterminate mammal fragments.

Though not extensive, the best bison butchering data from the site come from the Early Paleoindian bone bed (Table 33-14). At least two individual bison are represented in the

TABLE 33-14
Bison and Bison-sized Elements from 1/8-inch and 1/4-inch Recovery

Lot	Unit	No.	Taxon	Element	Portion	Period
1/8-inch Sample:						
386	IIIc	1	Mammalia (very large)	Long bone	Diaphyseal fragment	Late Archaic
431	IIIb/c	4	Mammalia (very large)	Long bone	Diaphyseal fragment	Late Archaic
437	IIIc	1	Mammalia (very large)	Long bone	Diaphyseal fragment	Late Archaic
1314	Isi-c	1	Mammalia (very large)	Long bone	Diaphyseal fragment	Late Paleoindian
1665	Id	1	Mammalia (very large)	Tooth, permanent/deciduous indeterminate	Enamel fragment	Late Paleoindian
2270	Isi	1	Bison sp.	Permanent tooth	Cheek tooth	Early Paleoindian
2516	Igl/Isi/Icl	1	Bison sp.	Permanent tooth	Upper M	Early Paleoindian
2569	Igl/Isi/Icl	1	Mammalia (very large)	Tooth, permanent/deciduous indeterminate	Tooth	Early Paleoindian
2570	Igl/Isi/Icl	1	Mammalia (very large)	Tooth, permanent/deciduous indeterminate	Cheek tooth	Early Paleoindian
2648	Isi	1	Mammalia (very large)	Long bone	Diaphyseal fragment	Early Paleoindian
Total:		13				
1/4-inch Sample:						
15U2	II	2	Mammalia (very large)	Tooth, permanent/deciduous indeterminate	Enamel fragment	Late Paleoindian
30X1c	II	2	Mammalia (very large)	Long bone	Diaphyseal fragment	Late Paleoindian
10E	IIIc	1	Bison sp.	Fused 3rd and 4th metacarpal	Proximal anterior lateral end	Late Archaic
10E	IIIc	2	Mammalia (very large)	Rib	Shaft fragment	Late Archaic
12D	IIIc	1	Bison sp.	Radial carpal bone	Complete or nearly complete	Late Archaic
13F	IIIc	1	Bison sp.	Proximal axial sesamoid	Complete or nearly complete	Late Archaic
15D	IIIc	1	Bison sp.	Proximal sesamoid	Anterior aspect	Late Archaic
15D	IIIc	1	Mammalia (very large)	Long bone	Diaphyseal fragment	Late Archaic
16F	IIIc	1	Bison sp.	Permanent tooth	Lower I	Middle/Late Archaic
17D	IIIc	1	Bison sp.	Fused second and third tarsal	Complete or nearly complete	Late Archaic
36D	IIIc	1	Bison sp.	Humerus	Distal medial end	Late Archaic
37DC	IIIc	1	Bison sp.	Mandible	Horizontal ramus with diastema	Late Archaic
37DC	IIIc	1	Bison sp.	Permanent tooth	Lower M3	Late Archaic
37FB	IIIc	1	Mammalia (very large)	Long bone	Diaphyseal fragment	Late Archaic
15X1	Id/II	1	Mammalia (very large)	Long bone	Diaphyseal fragment	Late Paleoindian
29LL2a	Igl/Isi	1	Bison sp.	Scapula	Glenoid fossa and incomplete blade	Early Paleoindian
30LL2a	Igl/Isi	1	Bison sp.	Tibia	Distal end	Early Paleoindian
31LL2/MM1c	Igl/Isi	1	Bison sp.	Proximal phalanx	Complete or nearly complete	Early Paleoindian
31MM1b	Igl/Isi	1	Bison sp.	Permanent tooth	Upper M1 or 2	Early Paleoindian
31MM2a	Igl/Isi	1	Bison sp.	Calcaneus	Lateral aspect	Early Paleoindian
31MM2b	Igl/Isi	1	Bison sp.	Rib	Vertebral end	Early Paleoindian
34OO1&2b	Igl/Isi	1	Bison sp.	Astragalus	Complete or nearly complete	Early Paleoindian
35OO2a	Igl/Isi	5	Mammalia (very large)	Indeterminate	Fragment	Early Paleoindian
35OO2b	Igl/Isi	1	Bison sp.	Cervical vertebra	Centrum and neural area	Early Paleoindian
25II2c	Isi	1	Mammalia (very large)	Indeterminate	Fragment	Early Paleoindian
34NN2b	Isi	1	cf. Bison	Vertebra	Neural area only	Early Paleoindian
15AA2	Isi-c	1	Bison sp.	Cranium	Petrosal	Late Paleoindian
29AA1	Isi-c/Id/II	1	Bison sp.	Lumbar vertebra	Centrum and neural area	Late Paleoindian
17JJ2/KK1	Isi/Icl	1	Bison sp.	Astragalus	Complete or nearly complete	Early Paleoindian
29LL1b	Isi/Icl	1	Mammalia (very large)	Indeterminate	Fragment	Early Paleoindian
30KK1&2	Isi/Icl	1	Bison sp.	Humerus	Complete minus proximal epiphysis	Early Paleoindian
31LL1d	Isi/Icl	1	Bison sp.	Permanent tooth	Upper M1 or 2	Early Paleoindian
32MM1b	Isi/Icl	1	Bison sp.	Tooth, permanent/deciduous indeterminate	Cheek tooth	Early Paleoindian
32MM2b	Isi/Icl	1	Bison sp.	Astragalus	Lateral aspect	Early Paleoindian
32MM2b	Isi/Icl	1	Bison sp.	Astragalus	Medial aspect	Early Paleoindian
32MM2c	Isi/Icl	1	Mammalia (very large)	Indeterminate	Fragment	Early Paleoindian
32OO1&2a	Isi/Icl	1	Bison sp.	Mandible	Ascending ramus w/part horizontal ramus	Early Paleoindian
32OO1&2a	Isi/Icl	1	Bison sp.	Permanent tooth	Lower M3	Early Paleoindian
32OO2/PP1a	Isi/Icl	1	cf. Bison	Metacarpal	Proximal lateral end	Early Paleoindian
33OO	Isi/Icl	2	Mammalia (very large)	Indeterminate	Fragment	Early Paleoindian
35NN1&2b	Isi/Icl	1	Mammalia (very large)	Long bone	Diaphyseal fragment	Early Paleoindian
35NN1&2d	Isi/Icl	1	Bison sp.	Fused central/fourth tarsal	Complete or nearly complete	Early Paleoindian
35NN1&2d	Isi/Icl	1	cf. Bison	Rib	Shaft fragment	Early Paleoindian

Table 13-14, *continued*

Lot	Unit	No.	Taxon	Element	Portion	Period
37MM1c	Isi/Icl	1	Bison sp.	Permanent tooth	Lower M2	Early Paleoindian
37OO1/2a	Isi/Icl	1	Mammalia (very large)	Vertebra	Articular facet	Early Paleoindian
37OO1/2a	Isi/Icl	1	Mammalia (very large)	Vertebra	Centrum	Early Paleoindian
37OO1/2a	Isi/Icl	1	Mammalia (very large)	Vertebra	Neural area only	Early Paleoindian
37OO2a	Isi/Icl	1	Bison sp.	Fused 3rd and 4th metacarpal	Proximal end	Early Paleoindian
37PP2a	Isi/Icl	1	Mammalia (very large)	Indeterminate	Fragment	Early Paleoindian
37PP2a	Isi/Icl	1	Mammalia (very large)	Indeterminate	Fragment	Early Paleoindian
37PP2a	Isi/Icl	1	Mammalia (very large)	Vertebra	Neural area only	Early Paleoindian
24DD1d	Isi/Isi-c	1	Bison sp.	Astragalus	Complete or nearly complete	Paleoindian
24DD2d	Isi/Isi-c	1	Mammalia (very large)	Indeterminate	Fragment	Paleoindian
28EE2d	Isi/Isi-c	1	Bison sp.	Tibia	Distal end	Paleoindian
32W2	II	1	Mammalia (very large)	Long bone	Diaphyseal fragment	Late Paleoindian
170	Isi	2	Mammalia (very large)	Long bone	Diaphyseal fragment	Early Paleoindian
Total:		65				

bone bed, including an adult and a one young animal. While no cut marks were identified, elements include those of the cranium (maxillary and mandibular teeth), the pectoral girdle (scapula), vertebral column (cervical and lumbar vertebrae, ribs), forelimbs (humerus, metacarpal), hindlimbs (tibia), and feet (astragalus, calcaneus, phalanx). A metacarpal is spirally fractured. The assemblage of elements within the bone bed implies that these individuals were partially butchered at this locality and that the animals were killed at the site or close to it. Elements such as teeth and foot bones are generally low utility elements that are typically discarded at the kill location. The bison elements attest to the butchering of an adult and juvenile bison within the excavated portion of the site.

Marrow and Grease Extraction

In addition to the use of animals for meat, humans are known to process animals for both bone marrow and bone grease (Binford 1981; DeMarcay 1986; Lintz 1976; Peale 1978; Zierhut 1967). Bone marrow extraction involves breaking open long-bone shafts for the removal of marrow. Marrow extraction can be identified archeologically by a high degree of spirally fractured long-bone ends, fragmented long-bone shafts, and the presence of impact marks on long bones (DeMarcay 1986:70; Noe-Nygaard 1977). Impact marks are areas of conchoidal fractures where bones were hit with objects such as hammerstones to break open the medullary cavity for access to bone marrow.

Bone grease extraction, in contrast, involves extensive bone fragmentation and boiling for grease removal. Assemblages reflecting grease processing typically consist of extensive, small-sized, unidentifiable, unburned, spirally fractured accumulations of bone (Leechman 1951; Lintz 1976; Vehik 1977). Though detailed spatial analysis was not possible, the 1/4-inch Wilson-Leonard sample was evaluated to determine if marrow or grease processing could be identified.

At least some marrow processing seems evident at the site. Spiral fracture summary data for artiodactyls (deer and

pronghorn/deer indeterminate) is presented in Table 33-15. Of the 397 elements (count excludes teeth) assigned to deer or pronghorn/deer in the 1/4-inch sample, 123 (31%) are spirally fractured. Table 33-15 shows that a broad range of long-bone elements is spirally fractured. Sixty-six of these (53.7%) are articular ends of long bones. This pattern of a high frequency of spirally fractured long-bone articular ends conforms to the predictions of marrow processing discussed above. The other predictions include highly fragmented long-bone shafts and the presence of impact marks. No impact marks were observed on any bones from the site, although this may simply be a reflection of postdepositional degradation. A large proportion of spirally fractured shaft fragments, however, was observed.

In addition to these data, 3,197 specimens were recorded from the 1/4-inch as medium/large mammal indeterminate. Of this sample, 38.2% (n=1,222) consist of spirally fractured bone fragments. In all likelihood, these indeterminate mammal bones represent deer. Thus, the high frequency of spirally fractured shaft fragments and long-bone articular ends suggests that marrow processing of artiodactyls was taking place at the site. The picture for grease processing, however, is less clear.

As discussed above, assemblages reflecting grease processing should show extensive, small-sized, unidentifiable, unburned, spirally fractured accumulations of bone. Numerous small, unidentifiable, spirally fractured bones, in fact, were identified in the 1/4-inch sample (n=2,150). These counts are in addition to the 1,222 medium/large mammal bones noted above that show spiral fractures. On first appearance, these numerous, spirally broken bones would appear to reflect grease processing. However, many of these fragments are burned. From the ethnographic model predictions, grease-yielding bone should remain unburned. After grease processing occurs, bones are typically discarded in piles away from the fire. In addition, bones that have been processed extensively for grease have less collagen and organics than required to produce the vitrified blue and white burned bone typical of the sample. Thus it

TABLE 33-15
Spirally Fractured Artiodactyl Elements (Deer and Deer/Pronghorn Indeterminate)

Element	Portion	Totals
Mandible	Ascending ramus complete	1
Mandible	Alveolar ridge fragment	2
Humerus	Distal portion of shaft	2
Humerus	Distal posterior part of shaft	1
Humerus	Distal lateral part of shaft	1
Humerus	Distal end	6
Humerus*	Distal end	*2
Radius	Proximal end	2
Radius	Proximal posterior end	1
Radius	Proximal lateral end	1
Radius	Proximal medial end	4
Radius	Distal end	2
Femur	Proximal end	1
Femur	Distal end	2
Femur	Diaphyseal fragment	1
Tibia	Proximal portion of shaft	1
Tibia	Prox. lateral portion of shaft	1
Tibia	Distal end	9
Tibia	Distal lateral end	1
Tibia	Diaphyseal fragment	1
Fibula	Diaphyseal fragment	1
Metapodial	Posterior portion of shaft	1
Metapodial	Diaphyseal fragment	3
Fused 3rd and 4th metacarpal	Proximal end	1
Fused 3rd and 4th metacarpal	Proximal anterior end	1
Fused 3rd and 4th metacarpal	Proximal anterior medial end	1
Fused 3rd and 4th metacarpal	Proximal lateral end	1
Fused 3rd and 4th metacarpal	Proximal medial end	1
Fused 3rd and 4th metacarpal	Distal portion of shaft	1
Fused 3rd and 4th metacarpal	Distal end	3
Fused 3rd and 4th metacarpal	Diaphyseal fragment	1
Fused 3rd and 4th metatarsal	Proximal end	1
Fused 3rd and 4th metatarsal	Proximal anterior end	3
Fused 3rd and 4th metatarsal	Proximal anterior medial end	1
Fused 3rd and 4th metatarsal	Proximal posterior end	1
Fused 3rd and 4th metatarsal	Proximal posterior medial end	1
Fused 3rd and 4th metatarsal	Proximal lateral end	1
Fused 3rd and 4th metatarsal	Prox. post. portion of shaft	1
Fused 3rd and 4th metatarsal	Anterior portion of shaft	3
Fused 3rd and 4th metatarsal	Distal portion of shaft	1
Fused 3rd and 4th metatarsal	Distal end	1
Fused 3rd and 4th metatarsal	Diaphyseal fragment	31
Phalanx	Distal portion of shaft	1
Phalanx	Distal end	1
Phalanx*	Distal end	*1
Proximal phalanx	Proximal end	3
Proximal phalanx*	Proximal end	*1
Proximal phalanx*	Proximal anterior end	*1
Proximal phalanx	Distal end	5
Proximal phalanx	Distal anterior end	2
Middle phalanx	Distal end	5
Calcaneus	Medial aspect	1
Total:		123

*Burned

seems unlikely that these small, burned, spirally fractured bones reflect grease processing.

It is suggested here that these fragments may, instead, be associated with marrow processing. Following long-bone

breakage and marrow extraction, shaft fragments could have been discarded in fires where they were burned; or some of this material could have been burned during subsequent episodes of midden or hearth use. As the taphonomic analysis

shows, burning can lead to extensive bone fragmentation. Thus, long-bone shaft fragments with spiral fractures from marrow processing could have been further reduced through discard by burning. However, the burned bone data for artiodactyl long-bone articular portions (see Table 33-15) complicates this interpretation. Only four of these articular ends are burned. If the interpretation of the small, burned, spirally fractured bone is correct and these bones were tossed in fires after marrow processing, it suggests that ends of long bones were discarded differentially since so few are burned.

Conclusions

The faunal sample from the Wilson-Leonard site is highly fragmented. The majority of the sample consists of unidentifiable fragments. For specimens that could be identified to class, mammals dominate. Artiodactyls were most frequently identified in the 1/4-inch sample, followed by turtle, rabbit, carnivore, bison, rodent, snake, bird, and fish elements. The 1/8-inch sample is dominated by rabbits, turtles, rodents and snakes. Forest, forest edge, and riparian taxa are most commonly represented. Tooth wear and epiphyseal fusion data for deer show that a range of subadult, adult, and old adult cervids were hunted. No specific seasonal indicators were identified in the assemblage.

Only 21 cut marks were identified in the 1/4-inch sample, while 2 were observed from the 1/8-inch sample. Specific butchering patterns and disarticulation sequences could not be reconstructed. The range of artiodactyl elements present at the site, however, suggests that at least some deer were brought back to the site whole. Differential preservation in favor of dense, low utility elements likely biased the sample. The high frequency of spiral fractures is believed to reflect marrow processing, though whether grease processing occurred remains unresolved.

PALEOINDIAN AND ARCHAIC SUBSISTENCE

This section reviews the broader issue of animal exploitation by Paleoindian and Archaic peoples and compares relevant data from the Wilson-Leonard site. The initial portion of this review is drawn from Steele and Powell (1993:142-144) and Powell and Steele (1994). The traditional view of Paleoindians is that they were big-game hunters. In this model, small animals and plants are generally considered to have been unimportant in Paleoindian diet. Similarities in projectile point styles throughout North America and their association with megafaunal kills are used as evidence in support of this specialized subsistence economy. Following megafaunal extinctions by 10,000-8,000 B.P., Early to Middle Archaic peoples are seen as having shifted to a more-generalized diet, including a broader range of plants and small fauna. With the onset of the Early Archaic, more regional diversity is evident in North American projectile point styles. These varying tool kits suggest that more diverse food-

getting strategies began to appear in the Early Archaic. Plant remains also occur more frequently at post-Pleistocene North American archeological sites.

More recently, this model of specialized Paleoindian subsistence has been challenged. Johnson (1977) questioned the stereotypical view that all Paleoindians were systematic big-game hunters. She reviewed Paleoindian sites showing a range of small- and medium-sized taxa, in addition to large game animals. Increasingly, researchers are suggesting that not all Paleoindians were specialized big-game hunters (Olsen 1990). This alternative model proposes that Paleoindians, like Archaic peoples, exploited a wide range of plants and animals. While it is recognized by proponents of this model that some Paleoindian groups focused on big game hunting, these occurrences are seen as localized adaptations within a broader sphere of Paleoindian subsistence strategies. Examples of additional data sets potentially supporting this view of Paleoindians as generalized hunter-gatherers are provided below.

Powell and Steele (1994) recently examined North American Paleoindian skeletal material and showed that dental microwear defects were comparable to those identified in Early and Middle Archaic populations, suggesting continuity in subsistence strategies. Meltzer and Smith (1986) also questioned the assumption that all Paleoindians and early Holocene groups were specialized big-game hunters. They argued that Paleoindian and early Holocene site distributions, tool assemblages, and projectile point functions and distributions are consistent with a generalized subsistence economy (Meltzer and Smith 1986:3). In sum, they suggested that Paleoindian and Archaic subsistence were relatively continuous. Meltzer (1988) stressed this point further in his continued research in eastern North America. He suggested that tundra and tundra-forest dwelling Paleoindians in this area were possibly specialized caribou hunters, while forest dwelling Paleoindians were generalists.

Other researchers have also supported the generalized Paleoindian subsistence model. From the Levi site in Central Texas, Alexander (1963) suggested a generalized economy associated with Plainview occupations dated to 9300 B.P. Evidence of small game exploitation and seed grinding suggested that an "Archaic pattern of life was developing as early as 9000 to 7000 years ago" (Alexander 1963:527). Pertulla (1989:21), in reviewing Paleoindian evidence from East Texas stated, "there is no clear evidence in northeast Texas for the association of Paleoindian components with the remains of extinct late Pleistocene megafauna.... Instead, it is more likely...that the Paleoindian groups were characterized by a generalized forest-based hunting and gathering strategy comparable to the Southeastern North American Paleoindian populations."

From the Aubry site, in north-central Texas, Ferring (1989) reported Clovis material in association with bison, deer, rabbit, pocket gopher, vole, squirrel, bird, turtle, snake. Though research on this site is ongoing, Ferring (1989:11) states

“the well-preserved faunas will shed light on Clovis subsistence.” A Paleoindian sample from Montana also included small animals—“utilized taxa...include cottontail rabbit, mink, and deer...Numerous calcined bone fragments reflect food preparation and detrital discard” Davis et al. (1989:9). From Kincaid Shelter in Texas, Collins et al. (1989) report Clovis material in association with both small and large animals, and Yesner et al. (1992) imply that late Pleistocene Paleoindians exploited a broad range of animals, including water fowl and small mammals.

Most recently, Storck and Spiess (1994) argue that evidence from the Udora site in south-central Ontario, Canada suggests that subsistence strategies for late Pleistocene Paleoindians in this area included a mix of both large and small animals (caribou, hare, and arctic fox). Though much of the research discussed here is ongoing, these recent studies increasingly support the model that at least some Paleoindians emphasized a generalized foraging strategy. This appears increasingly evident for forest dwelling Paleoindians. With this review in mind, data are presented below from the 1/4- and 1/8-inch Wilson-Leonard samples for Paleoindian and post-Paleoindian intervals at the site.

Paleoindian Fauna at Wilson-Leonard

Taxa identified from Paleoindian components at the Wilson-Leonard site include musk turtle, emydid turtle, snake, bird, rodent, jackrabbit, cottontail rabbit, canid, deer, bison, and horse (see Tables 33-9 and 33-10). Deer and pronghorn/deer indeterminate dominate the 1/4-inch Paleoindian assemblage, though bison is most common in the Early Paleoindian component. These artiodactyls are followed in decreasing frequency by rabbit, turtle, carnivore, rodent, and bird. In the 1/8-inch sample, small taxa such as leporids, turtles, and snakes are most common during the Paleoindian intervals. Among the leporids, cottontails dominate over jackrabbits during the Paleoindian periods. By the Middle Archaic, cottontails are less frequent, while jackrabbits are relatively more common. This may be related to climatic differences, with xeric jackrabbit habitats established following a more mesic early Holocene period. While bison is present at the site, it represents only a small portion of the total faunal sample, which is dominated by a diverse range of smaller animals.

Early Paleoindian Bone Bed

The Early Paleoindian bone bed consists of materials recovered from Units Igl/Isi and Igl/Isi/lcl, plus all bison and bison-sized bone recovered from Early Paleoindian context. A total of 1,167 specimens was recovered from the 1/4-inch sample. The sample is dominated by indeterminate fragments (n=971; 83.2%). Other taxa include indeterminate turtle (n=2), musk turtle (n=1), indeterminate small mammal (n=8), medium/large-sized mammal (n=101), large mammal

(n=11), bison-sized mammal (n=19), rabbit/hare (n=16), indeterminate artiodactyl (n=1), large artiodactyl (n=5), and bison (n=32). Burned bone comprises 11.5% (n=134) of the sample, while 8 (0.69%) spirally fractured bones were identified. Burned specimens include the 2 unidentified turtle elements and 3 bison elements. Spiral fractures were identified on a large artiodactyl fragment and a bison humerus and metacarpal.

At least two individual bison are represented in the bone bed, including an adult and a juvenile animal. The bison MNI is based on the presence of two right astragali. Age structure, as discussed previously, was based on dentition and epiphyseal fusion. The wide range of elements present (including low utility elements) suggests the bison were killed and butchered at or near the site.

A total of 236 bone bed specimens was recovered from the 1/8-inch sample. The sample is dominated by indeterminate fragments (n=121; 51.27%). Other taxa include indeterminate turtle (n=2), indeterminate small mammal (n=3), medium-sized mammal (n=2), medium/large-sized mammal (n=85), large mammal (n=6), bison-sized mammal (n=2), rabbit/hare (n=10), jackrabbit (n=1), cottontail (n=2), and bison (n=2). Burned bone comprises 45.34% (n=107) of the sample, while 3 (1.27%) spirally fractured mammal bones were identified. Burned taxa include turtle, small mammal, medium-sized mammal, jackrabbit, and cottontail.

Late Paleoindian (Golandrina, Barber, St. Mary's Hall Components)

The Late Paleoindian lanceolate point component consists of materials from Unit II. A total of 1,542 specimens was recovered from the 1/4-inch sample. The sample is dominated by indeterminate fragments (n=1,177; 76.33%). Other taxa include cf. turtle (n=1), indeterminate turtle (n=2), large bird (n=1), indeterminate small mammal (n=2), small/medium-sized mammal (n=1), medium-sized mammal (n=14), medium/large-sized mammal (n=288), large mammal (n=24), bison-sized mammal (n=5), rabbit/hare (n=3), jackrabbit (n=1), cf. cottontail (n=1), cottontail (n=7), carnivore (n=3), canid (n=1), indeterminate artiodactyl (n=1), and pronghorn/deer (n=10). Burned bone comprises 70.69% (n=1,090) of the sample, while 78 (5.06%) spirally fractured bones were identified. Burned taxa include turtle, bird, jackrabbit, cottontail, carnivore, canid, and pronghorn/deer. Spiral fractures were identified on various fragments, as well as on bison-sized mammal and pronghorn/deer.

A total of 4,592 specimens was recovered from the 1/8-inch sample. The sample is dominated by indeterminate fragments (n=4,127; 89.85%). Other taxa include fish (n=85), indeterminate turtle (n=16), lizard/snake (n=2), snake (n=13), indeterminate small mammal (n=69), small/medium-sized mammal (n=4), medium-sized mammal (n=21), medium/large-sized mammal (n=168), large mammal (n=6), cf. rabbit/hare (n=3), rabbit/hare (n=31), cf. jackrabbit (n=1), jackrabbit (n=9), cf.

cottontail (n=3), small rodent (n=4), medium-sized rodent (n=8), gopher (n=16), woodrat (n=1), carnivore (n=3), indeterminate artiodactyl (n=1), and deer (n=1). Burned bone comprises 77.29% (n=3,550) of the sample, while 5 (0.11%) spirally fractured bones were identified. Burned taxa include fish, turtle, snake, jackrabbit, cottontail, gopher, woodrat, carnivore, and deer.

Late Paleoindian (Wilson Component)

The Late Paleoindian Wilson component consists of materials from Unit Isi-c. A total of 1,846 specimens was recovered from the 1/4-inch sample. The sample is dominated by indeterminate fragments (n=1,565; 84.73%). Other taxa include indeterminate turtle (n=12), kinosternid turtle (n=1), water turtle (n=1), indeterminate bird (n=1), indeterminate mammal (n=1), indeterminate small mammal (n=2), small to medium-sized mammal (n=1), medium-sized mammal (n=21), medium/large-sized mammal (n=194), large mammal (n=7), medium-sized rodent (n=1), rabbit/hare (n=5), jackrabbit (n=1), cottontail (n=8), carnivore (n=2), cf. *Canis* sp. (n=1), indeterminate artiodactyl (n=6), deer (n=6), pronghorn/deer (n=9), and bison (n=1). The sample is extensively burned (n=1,509; 81.70%). Burned taxa include turtle, bird, jackrabbit, cottontail, rodent, carnivore, canid, and deer. Fifty-five (2.98%) spirally fractured bones were identified. Spiral fractures were identified on numerous fragments and pronghorn/deer.

A total of 1,521 specimens was recovered from the 1/8-inch sample. The sample is dominated by indeterminate fragments (n=1,312; 86.26%). Other taxa include indeterminate turtle (n=12), kinosternid turtle (n=1), lizard/snake (n=2), snake (n=12), large bird (n=1), indeterminate small mammal (n=22), small/medium-sized mammal (n=1), medium-sized mammal (n=5), medium/large-sized mammal (n=95), large mammal (n=4), bison-sized mammal (n=1), shrew (n=2), rabbit/hare (n=11), jackrabbit (n=4), cf. cottontail (n=1), cottontail (n=22), small rodent (n=1), medium-sized rodent (n=2), cf. ground squirrel (n=1), cf. gopher (n=1), gopher (n=5), woodrat (n=2), and indeterminate artiodactyl (n=1). Burned bone comprises 70.02% (n=1,065) of the sample, while only 6 (0.39%) spirally fractured bones were identified. Burned taxa include snake, bird, jackrabbit, cottontail, and woodrat. Spiral fractures were identified on various indeterminate mammal fragments.

Archaic/Late Prehistoric Fauna at Wilson-Leonard

As with the Paleoindian sample, deer and pronghorn/deer dominate the Archaic through Late Prehistoric assemblage at the site. These artiodactyls are followed in decreasing frequency by turtle, rabbit, carnivore, bison, and rodent. Overall, the general trend reflected by the Archaic/Late Prehistoric sample is similar to that reflected by the Paleoindian

sample. Both 1/4-inch samples for these time periods are dominated by deer or pronghorn/deer, and both show a wide range of taxa. The major difference between the time periods is a higher frequency of bison and cottontail rabbit in the Paleoindian intervals.

Early Archaic

The best Early Archaic context from the site comes from Unit IIIa. A total of 769 specimens was recovered from the 1/4-inch sample. The sample is dominated by indeterminate fragments (n=580; 75.42%). Other taxa include indeterminate turtle (n=19), small/medium-sized mammal (n=2), medium-sized mammal (n=3), medium/large-sized mammal (n=133), large mammal (n=11), cf. rabbit/hare (n=1), rabbit/hare (n=2), cottontail (n=2), carnivore (n=1), canid (n=1), indeterminate artiodactyl (n=3), and pronghorn/deer (n=11). Burned bone comprises 50.85% (n=391) of the sample, while 110 (14.30%) spirally fractured bones were identified. Burned taxa include turtle, rabbit/hare, and carnivore. Spiral fractures were identified on various fragments and on pronghorn/deer.

A total of 3,580 specimens was recovered from the 1/8-inch sample. The sample is dominated by indeterminate fragments (n=3,108; 86.65%). Other taxa include fish (n=5), indeterminate turtle (n=53), kinosternid turtle (n=3), mud turtle (n=2), softshell turtle (n=1), lizard/snake (n=3), snake (n=19), small bird (n=1), small mammal (n=14), indeterminate small mammal (n=39), medium-sized mammal (n=22), medium/large-sized mammal (n=216), large mammal (n=10), rabbit/hare (n=32), jackrabbit (n=8), cottontail (n=17), medium-sized rodent (n=3), tree squirrel (n=1), gopher (n=12), medium-sized cricetid rodent (n=1), woodrat (n=2), carnivore (n=1), indeterminate artiodactyl (n=1), deer (n=3), and pronghorn/deer (n=3). Burned bone comprises 35.07% (n=1,258) of the sample, while only 25 (0.70%) spirally fractured mammal bones were identified. Burned taxa include turtle, snake, jackrabbit, cottontail rabbit, tree squirrel, and deer.

Late Archaic

The best Late Archaic context from the site comes from Unit IIIc. A total of 3,337 specimens was recovered from the 1/4-inch sample. The sample is dominated by indeterminate fragments (n=2,476; 74.20%). Other taxa include fish (n=1), indeterminate turtle (n=16), kinosternid turtle (n=4), water turtle (n=1), snake (n=5), indeterminate small mammal (n=1), small/medium-sized mammal (n=2), medium-sized mammal (n=6), medium/large-sized mammal (n=477), large mammal (n=137), large/very large mammal (n=1), bison-sized mammal (n=4), rabbit/hare (n=9), jackrabbit (n=1), cottontail (n=4), tree squirrel (n=2), cotton rat (n=3), carnivore (n=4), raccoon (n=2), cf. canid (n=1), canid (n=1), indeterminate artiodactyl (n=44), cf. deer (n=1), deer (n=40), pronghorn (n=2), cf. pronghorn/deer (n=1), pronghorn/deer (n=83), and bison (n=8). Burned bone comprises 22.60% (n=754) of the sample, while

1,020 (30.57%) spirally fractured bones were identified. Burned taxa include jackrabbit, cottontail, carnivore, deer, pronghorn/deer, and bison. Spiral fractures were identified on carnivore, deer, pronghorn, pronghorn/deer, and bison.

A total of 4,719 specimens was recovered from the 1/8-inch sample. The sample is dominated by indeterminate fragments ($n=3,580$; 75.86%). Other taxa include fish ($n=3$), frog/toad ($n=1$), indeterminate turtle ($n=37$), kinosternid turtle ($n=1$), water turtle ($n=11$), snake ($n=24$), large bird ($n=1$), small mammal ($n=3$), indeterminate small mammal ($n=13$), small/medium-sized mammal ($n=11$), medium-sized mammal ($n=9$), medium/large-sized mammal ($n=824$), large mammal ($n=68$), bison-sized mammal ($n=2$), cf. rabbit/hare ($n=2$), rabbit/hare ($n=8$), jackrabbit ($n=10$), cottontail ($n=14$), small rodent ($n=1$), medium-sized rodent ($n=7$), gopher ($n=5$), medium-sized cricetid rodent ($n=3$), cotton rat ($n=2$), woodrat ($n=6$), carnivore ($n=1$), indeterminate artiodactyl ($n=18$), cf. deer ($n=2$), deer ($n=31$), pronghorn ($n=1$), and pronghorn/deer ($n=20$). Burned bone comprises 18.48% ($n=872$) of the sample, while 952 (20.17%) spirally fractured bones were identified on various deer and deer-sized fragments. Burned taxa include turtle, snake, rodent, deer, and pronghorn/deer.

Late Prehistoric

The best Late Prehistoric context from the site comes from Unit IIIc. A total of 805 specimens was recovered from the 1/4-inch sample. A well-defined Late Prehistoric context was not available from the 1/8-inch sample. The 1/4-inch Late Prehistoric sample from Unit IIIc is dominated by indeterminate fragments ($n=581$; 72.17%). Other taxa include medium/large-sized mammal ($n=175$), large mammal ($n=24$), indeterminate artiodactyl ($n=3$), deer ($n=7$), and pronghorn/deer ($n=15$). Burned bone comprises 24.60% ($n=198$) of the sample, while 373 (46.34%) spirally fractured bones were identified.

Bison Remains

As previously discussed, the question of bison availability throughout the Holocene represents one of the most widely addressed zooarcheological issues in Central Texas. Only 78 specimens from the Wilson-Leonard site fall within the size-range of bison (see Table 33-14). Specimens are present in the following intervals: Paleoindian, Early Paleoindian, Late Paleoindian, Middle/Late Archaic, and Late Archaic. No bison were identified from the Early Archaic, corresponding roughly with the onset of Dillehay's (1974) Absence Period I. Bison is also absent in the Late Prehistoric components, and no specimens were recovered from definite Middle Archaic deposits.

Conclusions

Increasingly, the traditional view of all Paleoindians as specialized big-game hunters is being challenged. Many sites

excavated in the past few years show a range of both large and small fauna, interpreted by archeologists as representing food refuse. Data from the 1/4-inch Wilson-Leonard fauna show that Paleoindian and Archaic/Late Prehistoric assemblages are comparable in many respects. Both periods also show a range of smaller taxa including rabbits, turtles, and carnivores. Bison appear more important during the Paleoindian period, though smaller taxa were apparently used as well.

SUMMARY AND CONCLUSIONS

The Wilson-Leonard site is significant in containing a well-preserved late Pleistocene and Holocene faunal sequence from the eastern Edwards Plateau of Central Texas. Approximately 11,000 years of intermittent human occupation is reflected at this deeply buried open site. The site is unique for this area in containing discrete Paleoindian and Early Archaic components. The majority of archeological sites in the area contain primarily Late Archaic and Late Prehistoric materials. Little opportunity has existed for the study of early Holocene human adaptation in Central Texas. The long-term sequence, open-air nature, and archeological context of the site is significant for our understanding of this region's prehistory.

The taphonomic analysis shows that the faunal sample is highly fragmented and consists primarily of unidentifiable fragments. Bone surfaces are extensively corroded and pitted. Plant rootlet etching does not appear to have significantly modified the assemblage. Geoarcheological investigations at the site showed that the site formed primarily under a low-energy sedimentation regime. No abrasion or rounding was evident on the 1/4-inch sample, suggesting that water transport did not significantly bias the sample.

In addition, rodent gnawing was not a significant form of bone degradation. Only 0.6% of the sample shows rodent gnaw marks. While faunal- and floralturbation at the site was minimal, the prehistoric construction of burned rock ovens during the Early and Late Archaic periods may have mixed cultural deposits of different ages in some areas of the site. The lower deposits of Paleoindian materials, however, remained relatively intact.

This analysis produced no evidence suggesting that carnivores either modified or deposited bone at the site. No carnivore gnaw marks or breakage was identified. Likewise, no specific intrusive taxa were identified in the assemblage. As additional taphonomic and subsistence analysis show, high frequencies of the small animal component of the site are burned, suggesting they reflect human food refuse.

Bone-density-mediated attrition, however, may have biased the artiodactyl sample toward dense elements such as carpals, tarsals, sesamoids, and phalanges. The recognition of this makes it difficult to address more fully the issue of differential carcass transport by humans at the site. While burned bone is relatively better preserved at the

site, burning can also lead to a high degree of bone fragmentation. The extensive nature of burned bone throughout the site, and the conclusion that the majority of the bone was burned while it retained its organic collagen matrix, suggests that the burning is the result of cultural activity and not natural fire.

Though a broad range of classes and genera are present, artiodactyls (presumably deer), rabbits, and turtles dominate the assemblage. Fish and birds were rarely encountered in the 1/4-inch and 1/8-inch samples. Habitats exploited, as reflected in taxa presence, include riverine, forest and forest edge, scrubland, and grassland areas. Forest and forest edge environments are most commonly represented. Additional insight into human hunting is provided by deer tooth wear and epiphyseal fusion data. Tooth wear and bone fusion data suggest that a broad range of subadult, adult, and old adult deer were hunted. No specific indicators of seasonal site occupation or hunting were evident in the faunal assemblage.

Detailed butchering patterns for animals at the site could not be reconstructed. As the taphonomic analysis showed, the sample is heavily biased by bone fragmentation and differential preservation. Based on a broad (though skewed)

range of deer and deer/pronghorn elements, it appears that at least some animals were returned to the site whole. Few specimens showed cut marks, thus they could not be used to reconstruct butchering patterns at the site. High frequencies of spirally fractured long-bone shaft fragments and articular ends are interpreted as reflecting marrow processing. The burned nature of many of these shaft fragments suggests they were not used in grease manufacture but may have been burned following marrow extraction.

A review of the Paleoindian and Archaic/Late Prehistoric faunas from the site suggests that both time periods show a range of diverse animals of varying size. Though counts are low and must be treated with caution, artiodactyls, rabbits, and turtles dominate the assemblages. The major difference between the Paleoindian and Archaic intervals is a greater number of bison bones during the Paleoindian period, and the fluctuating rabbit frequencies throughout the Holocene. Overall, the Wilson-Leonard site has yielded an important faunal data set that should continue to be the focus of future research. As one of the best preserved and sampled Quaternary faunal sequences on eastern Edwards Plateau, the Wilson-Leonard faunal sample has the potential to provide important insight for years to come.

CHAPTER 34

FINE-SCREENING METHODS

by Susan Decker

INTRODUCTION

The process of fine screening refers to the technique of washing excavated matrix samples through nested mesh screens to recover microartifacts. It is similar to water screening or wet screening but is referred to as fine screening because of key differences in technique from traditional water-screening methods. The method of fine screening used by the Wilson-Leonard project was derived from the discipline of vertebrate paleontology (VP), where the technique has been employed for over a century to recover microfossils. McKenna (1965) provides a brief history of the method, from the earliest large-scale screening by Charles Moore in the nineteenth century to C. W. Hibbard's extensive use of screening as the primary retrieval method in the 1930s. McKenna improved screen construction in the 1960s and adapted the technique to suit a uniform particle size and a river water source but made it clear that the method is flexible and can be used under a variety of conditions.

Ernest L. Lundelius, Professor of Geological Sciences at The University of Texas at Austin, has long advocated the use of this technique to retrieve microfauna from archeological contexts and has refined it further. Lundelius employs nested screens having graded mesh sizes in order to handle matrix with various particle sizes, a common matter of concern for archeologists. The nested screens are immersed in stock tanks which can be set up near any water supply.

The VP method was selected for the TARL excavations for processing 100% of the matrix from two vertical columns (Squares 12 and 20), each a 1-x-1-m square. The procedure proved effective in processing a large amount of matrix composed of a wide range of particle sizes. Multiple bags of sediment were recovered from each 10-cm level of a total of 131 levels (67 in Square 12, 64 in Square 20). Of 1,355 paired coarse and fine bags of concentrate,

the archeological and faunal materials from all 1,355 coarse bags and from 405 fine bags were sorted and recovered. The 950 unsorted fine concentrate bags are available for future research.

Because the screening of the columns yielded such a valuable data set, a number of TxDOT and TARL samples from feature contexts in other squares were fine screened to aid in the feature analysis. A total of 116 samples, 42 of which were from the TARL excavations and 74 from the TxDOT excavations (including 25 from Burial 2) were processed. These represent 31 features in all three stratigraphic units. Some of these samples were the matrix left over from flotation; the fine screening process added another level of data without requiring a separate matrix sample. All of the TARL fine screening was accomplished with equipment and advice generously provided by Lundelius.

ADVANTAGES OVER OTHER METHODS

The VP method allows the recovery of the skeletal remains of many small species of animals that are valuable paleoenvironmental and economic indicators. Many such taxa are not recovered with standard 1/4-inch-mesh screens in traditional archeological wet and dry screening procedures. Similarly, otoliths of larger fish species are frequently retrieved with other methods, but the VP method recovers the otoliths of even very small species. By fine screening the matrix, a more-complete recovery of the aquatic and terrestrial species deposited at the site is possible.

The VP method inflicts minimal damage on the microfaunal remains, because it involves only a gentle agitation of the sample in water tanks. In contrast, the popular archeological practice of washing away sediment by spraying it with a pressured-nozzle hose breaks bones, especially when the clumps of dirt are broken apart between screeners' fingers or pushed through the screen. In addition, it is common practice to screen the matrix in the field

and simultaneously pick out the visible bone by hand. Many bones are overlooked under these less than optimal conditions. In the VP method, bones are not handled until after they have been separated from the concentrate with wax tools and have been turned over to the faunal analyst. This method makes possible 100% recovery because the matrix is not hurriedly picked in the field during screening but rather is picked in a laboratory with the aid of magnifying lenses (see Retrieval of Finds, below). The advantages are that fewer of the VP-fine-screened bones are lost through the screen, fewer are broken into unidentifiable fragments, and more are recovered from the concentrate.

Rarely recovered bird eggshells were retrieved by using the VP method of fine screening. Bird eggshells provide supplementary evidence for avian species, which are often not well represented in the skeletal remains recovered from archeological sites. The study of eggshells is fairly new to archeology, but as the analysis in Chapter 36 shows, the eggs can easily be classified into general size categories, and with scanning electron microscopes they can be identified to species. Also, large assemblages of microdebitage were retrieved from the fine screens, from complete flakes to tiny potlids and notching flakes. Identifiable charred macrobotanical remains were valuable complements to the flotation samples, and the large quantity of microfauna recovered has allowed an extensive analysis of the paleoenvironment, the paleoeconomy, and related cultural activities.

EQUIPMENT

Fine screening uses inexpensive equipment consisting of a large galvanized metal stock tank and pairs of wooden nested screens. Twenty screen pairs and three tanks were used. The large number of screens was optional, but it allowed the residue to dry in the screens themselves while other samples were being washed, thus reducing the amount of handling. The screens were designed and built by Gorden Bell and Robert Rainey of the Vertebrate Paleontology Lab, The University of Texas at Austin.

Each set of nested screens consisted of two rectangular wood-framed screens, the top one of which had an 1/8-inch mesh and the bottom one had a 1/16-inch mesh. The concentrate that was caught in the 1/8-inch mesh is referred to here as the coarse fraction, while the concentrate from the 1/16-inch mesh is called the fine fraction. The top screen had a stepped base which allowed it to fit snugly on top of the bottom screen so that the two would not come apart in the water tank. Since the bottom screen stayed under water during washing, the snug fit was necessary to prevent the matrix from escaping into the tank. The bottom screen had handles for lifting the screens and agitating the sample.

There were two reasons for separating the concentrate into two mesh sizes. First, the 1/8-inch mesh caught

the larger pieces including rocks, while the very small microfauna passed through to the 1/16-inch screen; in this way the microfauna were saved from being crushed by the rocks while in the screens. Second, the concentrate from the two mesh sizes was analyzed separately; the 1/8-inch fraction was sorted without a magnifying lens, and the 1/16-inch fraction was sorted under a microscope.

PROCEDURES

Screening

The following steps for the fine-screening process apply to all of the column samples. The feature samples underwent a slightly different procedure. The methods specific to the feature samples are indicated as such.

Step 1. The sample was dried in the sun on a plastic tarp. Drying caused clays in the sediment to contract. Once immersed in water, they expanded, causing the matrix to break apart and pass through the screens. The feature samples were already dry and did not require this step.

Step 2. The clean, empty nested screens were set in a tank of water (Figure 34-1). The bottom screen stayed below the water line, and the mesh of the top screen was at the water line. For the column samples, the same water was used for each sample until the tank had to be emptied of sediment; the samples were not slated to be used for any chemical analysis, so contamination from the water was not a problem. However, the tank was emptied, rinsed, and filled with clean water after washing every feature sample to eliminate contamination in anticipation of analyses that might be performed on the bone or charcoal at a later date.

FIGURE 34-1. Nesting screens and water tanks used for fine screening of soil samples.

The dried sediment sample was poured into the first screen. Up to three sets of screens were used for each sample, depending on the sample size. For example, three sets were required for a ca. 20-liter sample. Care was taken to ensure that the screens did not tip over and that the

matrix was poured evenly over the mesh. The weight of the matrix caused the top screen's mesh to be submerged, along with the matrix.

Step 4. Waterproof identification tags were placed in each top screen. At this point, the larger rocks were cleaned of matrix and removed from the screen so that they would not crush fragile materials during the agitation step. The rocks were set aside with an identification tag and were later cataloged.

Step 5. Each set of screens was gently agitated up and down under the water line to allow the sediment and any material less than 1/16-inch in diameter to pass through both screens (Figure 34-2). The sediment was never pushed through the mesh by hand or squeezed between the fingers to break it down, since that would have damaged the microfaunal remains. Whenever the soil did not immediately pass through the screens, it was allowed to soak in the tank and was agitated at intervals until it deflocculated.

FIGURE 34-2. Agitation of nesting screens in water tank during fine screening.

Step 6. Auxiliary techniques were employed, following Lundelius's directions, in cases where soaking and agitation did not result in the complete deflocculation of the clays in the matrix. Intermediate drying between multiple washings helped in many cases for both the column and

feature samples, because the wet-dry-wet cycle induced disintegration of aggregated sediment. An acid bath was used for those column samples that still did not break down; acid baths were not used for feature samples. A solution of water and hydrochloric acid from ordinary swimming pool cleaner was used for the acid bath. The screens were immersed for about 30 minutes in a 27% HCl solution (to include the carbonates); they were then rinsed thoroughly in a water tank.

Special samples: An additional step was added for the first four Burial 2 samples that were processed. After fine screening, the water was skimmed with a .710-mm geological screen, and the contents were backwashed into a clean, labeled cloth for examination. When hair fibers were discovered in the cloths, it was decided that the rest of the burial samples would be floated immediately before fine screening (it was later determined that the "hair" was from brushes used in excavation). "Floating" here means that the sample was stirred in a bucket of water to allow the release of the floating particles. The water was then poured into another bucket through a .425-mm geological screen, which caught the floating items. Only the water was poured out, while all of the residue was held back in the first bucket. It is this residue that was poured into the nested screens. For nonburial feature samples, any floating charcoal or seeds were skimmed off the water surface with a .710-mm geologic screen and saved for analysis before the tank was emptied.

Step 7. After washing, each sample was air dried in a sunny location while still in the screens (Figure 34-3), since removing the residue from the mesh while it is still wet is difficult to do without damaging the bones. During inclement weather, the samples were air dried indoors with oscillating fans. Once completely dry, each sample was bagged and labeled; the coarse and fine fractions were bagged separately.

Retrieval of Finds

One hundred percent of the bones, eggshells, otoliths, seeds, and debitage was retrieved from the column sample fine-screened concentrate by picking successive trays of matrix until all of the above materials had been removed. The coarse fraction, that greater than 1/8-inch, was picked without magnification or with a lamp fitted with a magnifying lens. The fine fraction, that between 1/8- and 1/16-inch, was picked under a 10X binocular microscope illuminated by a dual fiber optic light.

Both the coarse and the fine fractions from the feature samples were picked under the microscope so that the exact composition of the residue could be described. Four features (Features 168, 169, and 262 and Burial 2) were picked for 100% of the bones, eggshells, otoliths, charcoal, snails, debitage, burned limestone, ochre, unidentified minerals, quartz, quartzite, and other grains that

FIGURE 34-3. Fine-screened samples drying in the sun in separated top and bottom screens.

were not limestone. The rest of the features were picked for 100% of the bones, eggshells, otoliths, and debitage in some cases. The composition of the feature matrix was compared with the composition of nonfeature matrix that had been fine screened in the same manner so that anomalies such as evidence for burning of the feature matrix could be identified. The bone densities per unit volume of excavated sediment were calculated, along with the proportions of burned to unburned bone.

FINE SCREENING AT THE WILSON-LEONARD SITE

As a multicomponent site, Wilson-Leonard benefited from an intensive program of fine screening. Because the site had several distinct cultural components spanning a long period of time, it both required and allowed a diachronic analysis of comparative data retrieved by a standardized method for all artifact categories, from the top of the site to the bottom. This objective was achieved by fine screening two complete vertical 1-x-1-m columns within the site using the same mesh sizes and recovery techniques for all of the matrix. The adoption of a screening method designed for the retrieval of delicate bones with a minimum of damage allowed large faunal assemblages to be recovered. Microfauna is especially sensitive to environmental and economic changes. By studying the changes in microfaunal assemblages through time, a clearer understanding is possible of the distinctions between cultural components.

PLEISTOCENE TO HOLOCENE WILSON-LEONARD MICROVERTEBRATE FAUNA AND ITS PALEOENVIRONMENTAL SIGNIFICANCE

by Robin Balinsky

INTRODUCTION

The microvertebrate fauna of the Wilson-Leonard site is reported here on the basis of approximately 36,000 specimens of identifiable and unidentifiable bone, teeth, otoliths, and eggshell from a 6.5-m continuous stratigraphic sequence dated from approximately 1,000 to 12,000 years before present. Materials for this study were collected from Square 20, a 1-m square located along the east wall of the TARL excavation block. This square was one of two fine-screen squares excavated during the TARL excavations (see Chapters 3 and 34), but due to time constraints, only the fauna recovered from Square 20 is included in this analysis. Material from Square 12 is curated at the University of Texas Vertebrate Paleontology Laboratory (UTVPL) for future analysis under site number TMM43157. Specimens from Square 20 were identified to the lowest taxonomic level possible using the modern comparative collection at the UTVPL, resulting in a total of 45 taxa, including 29 taxa identifiable to genus and 8 identifiable to species.

The identification of seven extralimital rodent taxa supports a paleoenvironmental interpretation of fluctuating wet and dry climatic intervals and overall deeper soil depths over the past 12,000 years. These taxa are the bog lemming (*Synaptomys cooperi*), the yellow-faced pocket gopher (*Cratogeomys castanops*), the marsh rice rat (*Oryzomys palustris*), the muskrat (*Ondatra zibethicus*), the pine/prairie vole (*Microtus* sp.), the eastern pocket gopher (*Geomys* sp.), and the smooth-toothed pocket gopher (cf. *Thomomys* sp.).

The recovery of these extralimital taxa in the context of a well-dated stratigraphic sequence is congruent with similar faunal records from the 1982-1984 Wilson-Leonard excavations, Hall's Cave in Kerr County, and other sites around the Edwards Plateau, as well as pollen data from Boriack Bog in eastern Central Texas. An effort was made to closely compare the Wilson-Leonard microfauna with the Hall's Cave

faunal record, because it is the closest well-dated and extensively analyzed in Central Texas. Although the Wilson-Leonard microvertebrate faunal sample is small, fragmentary and, for the most part, poorly preserved, its diversity, long stratigraphic continuity, and location relative to other microvertebrate sites in Central Texas make Wilson-Leonard an important microvertebrate locality. The presence of *Cratogeomys castanops* and *Thomomys* sp. also records the extension of their previously known past ranges an additional 100 km eastward.

The primary objective of this study is to identify and describe the microvertebrate faunal sequence at Wilson-Leonard and interpret that sequence in paleoenvironmental terms. It was determined in an earlier study (Winkler 1990) that environmentally sensitive microvertebrate remains are present at the site, but their representation is very low owing to poor preservation. In assessing the status of the database TxDOT excavators provided for Winkler's study, Collins et al. (1991:14, 63) questioned the effectiveness of the faunal recovery techniques used for the TxDOT excavation. Winkler studied the microvertebrates recovered by "water screening" the fill from the northwest quadrant of TxDOT Square E28/S78 (the "fine-screen unit") on 1/16-inch wire mesh. Photographs taken during the 1984 water screening of that unit clearly show matrix being pushed through the screen by hand, a method that could potentially damage small bone. It was recommended, therefore, that an additional column taken from the surface to the bedrock be dug by TARL and processed using the less-destructive and more-consistent screening techniques described briefly in this chapter and in detail in Chapter 34.

In evaluating the results of this later effort, it is notable that of 3,493 identifiable pieces of bone from the TxDOT fine-screen unit, 365 (10.4%) were identifiable as fish; of the 365, only 18 (4.9%) could be identified to family; of 4,575 identifiable pieces of bone from TARL Square

20, 591 (12.9%) were identified as fish; of the 591, 100 (16.9%) could be identified to family. Improved faunal resolution is also demonstrated by the recovery and identification of larger numbers of postcranial elements and teeth of the smaller cricetine rodents, particularly *Peromyscus* sp.; 10 specimens of *Peromyscus* sp. were recovered from the latest excavation as compared to a single specimen from the TxDOT excavation. These results are interpreted as reflecting the reduced breakage of fragile bone achieved by the present study.

Matrix from Square 20 was collected from a total of 64 levels beginning at the top with Level 6 (Levels 1-5 were discarded without screening because they consisted of disturbed fill) continuing through Level 19 and Levels 24 through 73 (numbers 20-23 were skipped but no actual matrix was skipped or discarded). Levels 12, 13, 16, 25, 26, and 54-56 were divided horizontally into "A" and "B" subsets to separate materials associated with cultural features (the "B" subset) found in those levels. Most of the levels were 10 cm thick, although Levels 24-31 were 5 cm thick.

The faunal column of Square 20 spans nearly the full range of the three major stratigraphic units (I-III) present at the Wilson-Leonard site, reaching a depth of approximately 6.5 m (Figure 35-1). The column cuts through an area with considerable interfingering of the different stratigraphic subunits, particularly within the lowermost, Unit I. The base of Unit I, subunit Igl, consists of gravel deposits overlying Comanche Peak Limestone bedrock. Bone recovered from subunit Igl (Levels 55-73) is sparse, consisting mostly of tooth fragments or burned bone. In contrast, an abrupt abundance of scrap bone occurs in the lower Icl and Isi/Icl transition (Levels 51-53). This corresponds to the Early Paleoindian bison bone bed. Unburned bone appears to be slightly decalcified with a soft, chalky texture and a whole or partial coating of carbonate precipitates. This is particularly noticeable in a large amount of cancellous scrap bone from Level 52. Bone is slightly more plentiful in subunit Isic (the Leanne soil), and some of the unburned bone is better preserved, although carbonate coated.

Unit II consists of fluvial and colluvial deposits overlying Unit I. Bone from Unit II is more abundant, and abundance continues and increases toward the top of the column with no apparent reversals. It is likely that this pattern is a function of decreasing preservation over time caused by leaching and organic loss (Hare 1980). While bone from Unit II shows less evidence of leaching than that from Unit I, there is a considerable amount of etching and pitting in both burned and unburned bone from Unit II, particularly affecting the fine fraction. This may result from one or more causes including acids in groundwater or soil or digestive processes of animals and/or human occupants.

Bone is considerably more abundant in Unit III and retains the etched appearance noticeable in Unit II. The bone from the uppermost levels has an extremely dirty appearance. It is difficult to tell whether the dark discolorations

evident on more than 50% of the bone are oxides or stains and/or coatings of thin layers of humic soil. Because the discoloration is extensive, it seems to both mask and at times enhance the visible effects of burning or charring, causing problems in determining that attribute. Consequently, the percentages of burning in Unit III should be viewed as probably having a greater error margin than the two lower units.

MATERIALS AND METHODS

Approximately 1,500 kg of matrix was collected from Square 20 in 691 bags with bag numbers correlated to square and level provenience. The bags were transported to the UTVPL where the matrix was first dried on large plastic-covered flats and then screenwashed. The screenwashing setup consisted of three large water tanks and nested sets of 1/8- and 1/16-inch-mesh screens. Matrix was poured into the floating screens and allowed to soak for up to several hours depending on the clay content and calcification. The matrix was then intermittently gently agitated and allowed to soak until soil and clays had broken down, leaving a coarse and fine concentrate. Larger rock fragments were removed at this point, if present, and the washed concentrate was allowed to dry in the sun. Matrix with heavy clay content required more than one stage of washing and drying in order to break down the clays (see Chapter 34 for more details).

After drying, the concentrate was rebagged, labeled, and transferred inside the UTVPL where it was hand picked. Fine concentrate was picked under a binocular microscope while coarse concentrate could be picked with an unaided eye. All bone, snails, small lithic fragments, shells, and seeds were separated out at this point, placed in 5-dram vials or in gelatin capsules within vials, labeled with the original bag number, and stored on a table awaiting final identification. All (691 bags) of the coarse concentrate and 307 of the 691 bags of fine concentrate were picked from Square 20. Of these, faunal remains from 419 coarse bags and 234 fine bags were identified for this study.

The final step involved identification of the bone using an optic light, an Olympus SZ30 microscope (9-40X magnification) and the modern comparative collection the UTVPL. Specimens were identified to their lowest possible taxonomic level and were numbered and catalogued denoting taxon, element, number of specimens, provenience, and any additional comments such as burning, preservation, or notation of a unique characteristic. All bags from Levels 35-72 were fully analyzed. A minimum number of three bags of coarse concentrate and two bags of fine concentrate were analyzed for each level above 35 (only one bag of fine concentrate was recovered from Levels 12A, 13B, and 25A and B). Based on personal observation, this provided a broad enough sampling distribution to include a wide range of taxa.

FIGURE 35-1. Profile of Square 20 stratigraphic column.

FAUNAL PRESERVATION

Faunal preservation in the entire column ranged from poor to very poor with both preservation quality and faunal abundance decreasing rapidly toward the base of the column. The surface erosion, pitting, and highly fractured nature of the bone often limited specimen identification. This resulted in a high percentage of bone that was unidentifiable, averaging 87% for the entire column (Figure 35-2). The identifiable percentage was limited to mostly higher or more general taxonomic levels such as Teleost, Chelonia, small mammal, etc. Only the rodents and other taxa such as *Phrynosoma* sp. or *Trionyx* sp., which exhibit highly distinctive tooth patterns, elements, or bone textures were exceptions to this. Taxa were identified primarily by teeth or tooth fragments, as well as epiphyseal postcranial fragments, metapodial fragments, and carpal/tarsal elements. Very few whole bones of any taxon of any size were recovered.

FAUNAL DISCUSSION

Analysis of the fauna from Square 20 resulted in a fairly diverse representation of small taxa and a modest diversity of medium and larger animals from rabbit to bison size. Forty-four taxa were identified including 27 identifiable to genus and 9 identifiable to species from a total number of 4,575 specimens of bone, teeth, otoliths, and eggshell (Tables 35-1 through 35-4). Of the 45 identifiable taxa, 24 are represented by less than 10 specimens each, making sample sizes small and inappropriate for statistical manipulation or determination of minimum number of individuals. Although fish, snakes, and turtles were abundant in numbers of specimens, rodents were by far the best represented both in numbers of specimens and in numbers of taxa, comprising one-third of the total taxonomic diversity and 27% of the total number of identifiable specimens (Figure 35-3). Birds, amphibians, insectivores, and medium mammals, particularly carnivores, are poorly represented at Wilson-Leonard, most likely due to either their fragility or low representation in the area.

Although there is an abundance of fish specimens, particularly in the upper third of the column, most can be classified only as unidentified teleost based on bone texture and coloration. Centrarchids are represented by pharyngeal fragments and otoliths, both of which have diagnostic textures and shapes even when poorly preserved or burned. Several specimens of otoliths were originally tentatively identified to the genus, *Lepomis*, but this could not be verified based on the condition of the otolith collection at the UTVPL. A small number of ictalurids could be identified from spine fragments and a single otolith.

Amphibians are represented largely by postcranial elements of anurans including humeri, ilia, and vertebrae. Of a

total of 38 specimens of amphibians, only 5 could be identified to the genus *Rana*, 2 *R. catesbiana* based on a pair of large, relatively well-preserved ilia. Based on size alone, several of the smaller specimens of anura may include one or more species of *Hyla*. Four specimens exhibiting bone texture and shape attributable to Caudata could be determined, but identification to a lower taxonomic level was not possible.

Reptilian diversity at Wilson-Leonard is moderate and is represented by 10 taxa including 1 genus of turtle (*Trionyx* sp.), 2 genera of snakes (*Elaphe* sp. and *Sonora* sp.), and 2 genera of lizards (*Phrynosoma* sp. and *Ophisaurus attenuatus*). Turtle carapace and/or plastron fragments are abundant in the upper part of the column and may be referable to the family Kinosternidae. While snake vertebrae were fairly abundant, the difficulty associated with identifying snakes based solely on vertebrae or vertebral fragments severely limits their classification. Several specimens may be referable to the genera *Crotalis*, *Masticophis*, and *Thamnophis*. Lizard specimens that were identifiable to genus or species include 2 horns belonging to the genus *Phrynosoma* and 11 scales of the glass lizard *Ophisaurus attenuatus*. Several well-preserved but unidentifiable specimens of lizard jaws recovered from the fine concentrate may be identifiable at a later time.

Birds are represented in small numbers by both postcranial fragments and eggshell fragments. All bird material identified can be attributed to passerine-sized birds. Greater abundance of eggshell is particularly noticeable in Levels 7 and 8 and also in Level 38 (see Table 35-2). Additional data on eggshell abundance and characteristics are presented in Chapters 29 and 36.

Small mammals are the most diverse group of animals present at Wilson-Leonard and are represented by lagomorphs, rodents, and a single insectivore, *Cryptotis parva* (see Table 35-1 for complete listing and Figure 35-3 for vertical distribution). *Sigmodon* sp. and *Neotoma* sp. are the most common identifiable rodents present, followed by *Geomys* sp. and *Microtus* sp. Other rodents are represented by fewer specimens. Most rodent identifications are based on isolated tooth fragments, but some postcranial fragments, particularly tarsal bones, were very useful in diagnosing taxa and tended to preserve better than other elements. Although medium mammals were certainly present, very few could be identified based on the specimens recovered. *Lepus* specimens are uncommon and may be underrepresented. Carnivores are represented by several specimens of *Canis* cf. *latrans* and two specimens of *Procyon lotor*. No mustelids or felids were identified. A single medium-sized, low-crowned tooth fragment from Level 24 may be assignable to either *Castor* sp. or *Erethizon* sp. but could not be verified based on the incompleteness of the specimen. Large mammal specimens are also uncommon and the highly fragmentary nature of the material made identification difficult.

FIGURE 35-2. Percentages of identified versus unidentified bone in Square 20 by excavation level.

TABLE 35-1
Faunal Taxa and Common Names

Taxon	Common Name
Vertebrata	Vertebrates
Unidentified Vertebrata	
Osteichthyes	
Teleostei	
Unidentified Teleostei	Unidentified fish
Siluriformes	
Ictaluridae	Catfish family
<i>Ictalurus</i> sp.	
Perciformes	
Centrarchidae	Sunfish family
Unidentified Centrarchidae	
Amphibia	
Caudata	
Unidentified Caudata	Unidentified salamander
Anura	
Unidentified Anura	Unidentified frog/toad
Ranidae	
<i>Rana</i> sp.	Leopard frog family
<i>Rana</i> cf. <i>catesbiana</i>	Bull frog
Reptilia	
Chelonia	
Unidentified Chelonia	Unidentified turtle
Trionychidae	
<i>Trionyx</i> sp.	Softshell turtle
Squamata	Lizards and snakes
Unidentified Squamata	
Lacertilia	
Unidentified Lacertilia	Unidentified lizard
Anguidae	
<i>Ophisaurus attenuatus</i>	Western slender glass lizard
Iguanidae	
<i>Phrynosoma</i> sp.	Horned lizards
Serpentes	
Unidentified Serpentes	Unidentified snake
Colubridae	
Unidentified Colubrinae	Unidentified colubrid snake
<i>Sonora</i> sp.	Ground snake
<i>Elaphe</i> sp.	Rat snake
Aves	
Unidentified Aves	Unidentified birds
Mammalia	
Unidentified mammal, small	Unidentified small mammals, rodent to small rabbit size
Unidentified mammal, small/medium	Unidentified small to medium mammals, small rabbit to raccoon size
Unidentified mammal, medium	Unidentified medium mammals, raccoon to large dog size
Unidentified mammal, medium/large	Unidentified medium to large mammals, large carnivore to deer size
Unidentified mammal, large	Unidentified large mammals, deer to bison size
Insectivora	
Soricidae	
<i>Cryptotis parva</i>	Least shrew
Lagomorpha	
Leporidae	
<i>Sylvilagus floridanus</i> and/or <i>auduboni</i>	Cottontail rabbit
<i>Lepus californicus</i>	Jackrabbit
Rodentia	
Unidentified Rodentia	Unidentified rodents
Sciuridae	
<i>Spermophilus</i> sp.	Ground squirrel
<i>Sciurus</i> sp.	Tree squirrel

Table 35-1, continued

Taxon	Common Name
Rodentia (continued)	
Geomyidae	
<i>Geomys</i> sp.*	Grooved-tooth pocket gophers
<i>Cratogeomys castanops</i> *	Yellow-faced pocket gopher
<i>Thomomys</i> sp.*	Smooth-toothed pocket gophers
Heteromyida	
<i>Perognathus</i> sp.	Pocket mice
Muridae	
<i>Reithrodontomys</i> sp.	Harvest mice
<i>Peromyscus</i> sp.	White-footed deer and field mice
<i>Sigmodon hispidus</i>	Hispid cotton rat
<i>Neotoma</i> sp.	Wood rats
<i>Microtus ochrogaster</i> or <i>M. pinetorum</i> *	Voies
<i>Synaptomys cooperi</i> *	Bog lemming
<i>Oryzomys palustris</i> *	Marsh rice rat
<i>Ondatra zibethicus</i> *	Muskrat
Carnivora	
Unidentified Carnivora	Unidentified carnivores
Canidae	
<i>Canis latrans</i> or <i>C. familiaris</i>	Coyote or domestic dog
Procyonidae	
<i>Procyon lotor</i>	Raccoon
Artiodactyla	
Unidentified Artiodactyla	Unidentified even-toed ungulates
Cervidae	
<i>Odocoileus</i> sp.	White-tailed deer
Bovidae	
<i>Bison</i> sp.	Bison

*Extralimital taxa.

FAUNAL MODIFICATION

Aside from a high degree of specimen incompleteness, several other biases potentially affect the preservation of the faunal record at Wilson-Leonard. These include burning, human or animal processing and/or trampling, and groundwater alteration. Burning is a notable characteristic of the bone from this column affecting 25.4% of that recovered. Any specimens exhibiting minimum characteristics of slight charring or subtle bluish gray discoloration were identified as burned. The extent of burning ranged from these minimum stages to total blackening or removal of all color, resulting in a pale gray to white color. Burned white bone was easily distinguishable from bleached or leached white bone by possessing a higher level of surface textural preservation and by not having a soft, friable appearance in comparison. Less-burned bone also show better preservation than unburned bone regardless of stratigraphic level or the particular soil type from which the bone was recovered.

Percentages of burning differ across the column (Figure 35-4). In Levels 6-37 (Units IIIc through II), 24.7% of the total bone is burned with individual level percentages ranging from 8.6% to 68.1% (averaging 30.8%). From Levels 38 through 73 (Unit I) burning accounts for 31.3% of the total number of specimens, with individual level percentages ranging from 0% to 91.0% burned (averaging 35.8%). The higher

percentage of burned bone in the lower levels is more likely attributable to the preservational aspects of burning rather than an increased level of cultural or natural burning.

While percentages of burning do not differ significantly between identifiable and unidentifiable bone, patterns of burning within the identifiable bone fraction tend to be taxon specific. This suggests that human occupation may have served as a bias and influence on the faunal record in the selection and introduction of certain taxa as food items to the site. Although the faunal record at Wilson-Leonard is fairly diverse and compatible with other noncultural sites in Central Texas (Lundelius 1967), there are particular quantitative and burning patterns evident in the lagomorph, fish, and turtle specimens that indicate those taxa may have been used as food items by humans occupying the site. Lagomorph, specifically *Sylvilagus* sp., is consistently present in Levels 6-36 (Units IIIc-II) and somewhat more sporadic in Levels 37-55 (lower Unit II through Isl/Isi/Icl). Below these levels, very few specimens of either identified or unidentified bone are present. While its presence in Levels 37-73 is more sporadic, it accounts for a higher percentage of the total fauna in the levels where it does occur, averaging about one-third of the total identifiable fauna for that particular level. *Sylvilagus* sp. accounts for 338 specimens from the fine fraction, 38.8% of which are burned, and 100 specimens from the coarse fraction, 23.0% of which are

Table 35-2, continued

Level	Unit	Unidentified Teleost	Ictalurid	Centrarchid	Unidentified Caudata	Unidentified Anuran	<i>Rana</i> sp.	<i>Rana catesbiana</i>	Unidentified Chelonia	<i>Trionyx</i> sp.	Unidentified Serpentes	Unidentified Colubrid	<i>Elaphe</i> sp.	<i>Sonora</i> sp.	Squamata	Unidentified lizard	<i>Ophisaurus attenuatus</i>	<i>Phrynosoma</i> sp.	Unidentified Aves	Eggshell
50	Icl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	Icl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
52	Icl	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
53	Isi/Icl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54A	Igl/Isi/Icl	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54B	Igl/Isi/Icl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55A	Igl/Isi/Icl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
55B	Igl/Isi/Icl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56A	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56B	Igl	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
57	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	Igl	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals:		491	21	79	4	29	3	2	955	6	369	2	1	1	2	17	11	2	16	226

burned. Although *Sylvilagus* sp. is a common animal living in the fields and brushlands around Wilson-Leonard today, the consistency with which it is found in nearly every level of the Square 20 column and the higher than average level of burning in the fine fraction indicates that they were probably utilized as a significant food resource (Davis 1974).

The distributional pattern of fish and turtle remains from the upper half of the column also supports the use of these two taxa as significant food items. Fish specimens are present consistently in the upper half of the column and form a notable spike in abundance between Levels 24 and 28 (lower Units IIIa and IIIa/II, Figure 35-5). Percentages of fish specimens from the total of identifiable specimens in this interval reach as high as 51% in Level 25B and average 53.9% burned compared to 45.4% burned from the entire column. In general, fish have a higher percentage of burned specimens than any other sizable faunal group re-

covered from the column. This spike is also centered on Levels 25 and 26 which are associated with a burned rock feature (Feature 233) that may represent an Early Archaic hearth (see Chapter 26). Although some of the burned bone may have resulted from wildfires or the placement of hearths over naturally deposited animal remains, a large percentage can be inferred as cultural burning of animal bone either from cooking or possibly disposal. Based on the presence of cultural features and the high percentage of burning in fish specimens, fish were most likely an important food resource, particularly during the Early Archaic occupations represented in Levels 24 through 28 (ca. 8700-8000 B.P.). Regional data indicate that by 8000 B.P., significantly drier conditions had begun to characterize the climate of Central Texas (Collins 1995:Table 2), and it is likely that low water levels at streams like Brushy Creek made conditions unsuitable for fish by that time.

TABLE 35-3

Distribution of Mammalian Taxa in Square 20, by Level

Level	Unit	<i>Cryptotis parva</i>	<i>Lepus</i> sp.	<i>Sylvilagus</i> sp.	<i>Spermophilus</i> sp.	<i>Sciurus</i> sp.	<i>Cratogeomys castaneus</i>	<i>Geomys</i> sp.	<i>Thomomys</i> sp.	<i>Perognathus</i> sp.	<i>Reithrodontomys</i> sp.	<i>Perognathus/Reithrodontomys</i>	<i>Peromyscus</i> sp.	<i>Signodon hispidus</i>	<i>Neotoma</i> sp.	<i>Synaptomys cooperi</i>	<i>Ondatra zibethicus</i>	<i>Microtus</i> sp.	<i>Oryzomys palustris</i>	Unidentified Rodent	Unidentified Carnivore	<i>Canis</i> sp.	<i>Procyon lotor</i>	Unidentified Artiodactyl	<i>Odocoileus</i> sp.	<i>Bison</i> sp.
6	fill/IIIc	0	0	9	0	0	0	5	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	0
7	IIIc	0	2	16	0	0	0	22	0	2	0	0	1	9	2	0	0	1	0	49	0	0	0	2	1	0
8	IIIB/c	0	0	19	2	1	0	15	0	0	1	0	2	5	4	0	0	0	0	39	2	1	0	10	0	0
9	IIIB/c	0	0	21	0	1	0	11	0	0	0	0	0	11	5	0	0	0	0	40	0	0	0	7	5	0
10	IIIB	0	2	19	1	0	0	11	0	1	0	0	0	2	2	0	0	0	0	41	1	0	0	2	4	0
11A	IIIB	0	4	20	0	0	0	21	0	0	0	0	1	8	6	0	0	1	0	16	0	0	0	2	0	0
12A	IIIB	0	5	16	0	0	0	6	0	0	0	0	0	2	2	0	0	0	0	18	1	0	0	4	0	0
12B	IIIB	0	0	4	1	0	0	5	0	0	0	0	0	1	1	0	0	0	0	11	0	0	0	3	0	0
13A	IIIB	1	0	5	0	0	0	9	0	0	1	0	0	8	3	0	0	0	0	16	0	0	0	4	0	0
13B	IIIB	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
14	IIIB	0	1	2	0	0	0	4	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	1	0	0
15	IIa/b	0	1	6	0	0	0	7	0	0	0	0	0	2	5	0	0	0	0	29	0	0	0	2	0	0
16A	IIa/b	0	0	16	0	0	0	4	0	0	0	0	0	3	3	0	0	1	0	22	0	0	0	1	0	0
16B	IIa/b	0	1	5	0	0	0	6	0	0	0	0	0	5	6	0	0	0	0	7	0	0	0	0	0	0
17	IIa	0	0	21	0	0	0	12	0	2	0	0	0	3	8	0	0	1	0	20	0	0	0	4	0	0
18	IIa	0	0	8	0	0	0	3	0	0	0	0	0	2	1	0	0	0	0	14	0	2	1	0	0	0
19	IIa	0	0	7	0	0	0	6	0	0	0	0	1	3	3	0	0	0	0	27	0	0	0	3	0	0
24	IIa	0	0	23	0	0	0	6	1	0	0	0	0	6	6	0	0	1	0	28	0	0	0	0	0	0
25B	II/IIIa	0	0	9	0	0	0	7	1	0	0	0	0	6	3	0	0	0	0	14	0	0	0	0	0	0
25A+B	II/IIIa	0	0	7	0	0	0	4	0	0	0	0	0	1	0	0	0	2	0	15	0	0	0	0	0	0
26A	II/IIIa	0	2	8	0	0	0	1	0	0	0	0	1	4	1	0	0	1	0	16	0	0	0	0	0	0
26B	II/IIIa	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
27	II/IIIa	0	1	9	0	0	0	0	0	0	0	0	0	10	1	0	0	0	0	18	0	0	0	0	0	0
28	II/IIIa	0	0	19	0	0	0	6	0	0	0	1	0	3	0	0	0	2	0	24	0	0	0	0	0	0
29A	II	0	0	6	0	0	0	3	0	0	0	0	1	2	0	0	0	1	0	14	0	0	0	0	0	0
30	II	0	0	6	0	0	0	2	0	0	0	0	0	4	2	0	0	1	0	14	0	0	0	0	0	0
31	II	0	0	11	0	0	0	3	0	0	0	0	0	8	0	0	0	2	0	23	0	0	0	0	0	0
32	II	0	0	7	1	0	0	11	0	0	0	0	0	7	2	0	0	2	0	16	0	0	0	1	0	0
33	II	0	0	18	0	0	0	2	0	0	0	1	1	4	2	0	0	7	0	15	0	0	0	0	0	0
34	II	0	0	19	0	0	0	1	0	0	0	0	0	2	0	0	0	3	0	15	0	0	0	0	0	0
35	II	0	0	12	0	0	0	4	0	0	0	0	0	9	1	0	0	5	0	24	1	0	0	0	0	0
36	II	0	0	5	0	0	0	7	0	1	0	0	0	1	0	0	1	2	0	33	0	0	0	0	0	0
37	II	0	0	2	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	6	0	0	0	0	0	0
38	Isi-c/II	0	0	7	0	1	0	3	0	0	0	0	0	0	0	0	0	2	0	8	0	1	0	0	0	0
39	Isi-c	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0
40	Isi-c	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	2	0	0	0	0	0	0
41	Isi-c	0	0	4	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	8	0	0	0	0	0	0

Table 35-3, continued

		<i>Bison</i> sp.	<i>Odocoileus</i> sp.	Unidentified Artiodactyl	<i>Procyon lotor</i>	<i>Canis</i> sp.	Unidentified Carnivore	Unidentified Rodent	<i>Oryzomys palustris</i>	<i>Microtus</i> sp.	<i>Ondatra zibethicus</i>	<i>Synaptomys cooperi</i>	<i>Neotoma</i> sp.	<i>Signodon hispidus</i>	<i>Peromyscus</i> sp.	<i>Perognathus/Reithrodontomys</i>	<i>Reithrodontomys</i> sp.	<i>Perognathus</i> sp.	<i>Thomomys</i> sp.	<i>Geomys</i> sp.	<i>Crotogeomys castanops</i>	<i>Sciurus</i> sp.	<i>Spermophilus</i> sp.	<i>Sylvilagus</i> sp.	<i>Lepus</i> sp.	<i>Cryptotis parva</i>	Unit	Level
42	Isi-c	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0	0	Isi-c	42
43	Isi-c	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	Isi-c	43
44	Icl/Isi-c	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	Icl/Isi-c	44
45	Icl/Isi-c	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Icl/Isi-c	45
46	Icl/Isi-c	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	Icl/Isi-c	46
47	Icl	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	Icl	47
48	Icl	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	Icl	48
49	Icl	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Icl	49
50	Icl	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	Icl	50
51	Icl	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	Icl	51
52	Icl	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	Icl	52
53	Isi/Icl	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	Isi/Icl	53
54A	Igl/Isi/Icl	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	Igl/Isi/Icl	54A
54B	Igl/Isi/Icl	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	Igl/Isi/Icl	54B
55A	Igl/Isi/Icl	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	Igl/Isi/Icl	55A
55B	Igl/Isi/Icl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	Igl/Isi/Icl	55B
56A	Igl	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	56A
56B	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	56B
57	Igl	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	Igl	57
58	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	58
59	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	59
60	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	60
61	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	61
62	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	62
63	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	63
64	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	64
65	Igl	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	65
66	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	66
67	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	67
68	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	68
69	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	69
70	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	70
71	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	71
72	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	72
73	Igl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Igl	73
Totals:		1	19	438	5	3	1	219	2	6	2	3	10	135	75	2	1	37	1	716	5	4	2	52	10	8		

TABLE 35-4

[illegible]

Table 35-4, *continued*

Level	Unit	Small Mammal	Small-Medium Mammal	Medium Mammal	Medium-Large Mammal	Large Mammal	Total Sized Mammal	Unidentified Vertebrate	Total Bones
54B	Igl/Isi/Icl	1	0	0	0	0	1	13	19
55A	Igl/Isi/Icl	0	0	0	0	0	0	44	53
55B	Igl/Isi/Icl	0	0	0	0	0	0	23	28
56A	Igl	0	0	0	0	0	0	13	14
56B	Igl	0	1	0	1	0	2	63	67
57	Igl	0	0	0	0	0	0	25	29
58	Igl	0	0	0	0	0	0	11	11
59	Igl	0	0	0	0	0	0	12	12
60	Igl	1	0	0	0	0	1	5	6
61	Igl	0	0	0	0	0	0	3	3
62	Igl	0	0	0	0	0	0	2	2
63	Igl	0	0	0	0	1	1	3	4
64	Igl	0	0	0	0	0	0	3	3
65	Igl	0	0	0	0	0	0	12	15
66	Igl	0	0	0	0	0	0	1	1
67	Igl	0	0	0	0	0	0	4	5
68	Igl	0	0	0	0	0	0	1	1
69	Igl	0	0	0	0	0	0	2	2
70	Igl	0	0	0	0	0	0	1	1
71	Igl	0	0	0	0	0	0	0	0
72	Igl	0	0	0	0	0	0	0	0
73	Igl	0	0	0	0	0	0	3	4
Totals:		234	8	116	70	153	581	32,059	36,634

The abundance of turtle material from Levels 13-25 (Units IIIb-IIIa/II) echoes and partially overlaps the fish spike (see Figure 35-5). The turtle spike, which is centered between Levels 15 and 18 (Units IIIa/b-upper IIIa), consists of up to 53% of the total identifiable specimens per level and averages 23.1% burning for these levels as compared to 21.4% burning of turtle specimens in the entire column. While the percentage of burning in these levels is not much higher than the average percentage of burned turtle for the entire column, the sheer abundance of turtle specimens in this interval suggests a nonnatural factor, most likely human influence. If cultural behavior is indeed responsible for the successive high abundances of fish and turtle remains in the Wilson-Leonard fauna, we can speculate that turtle may have become a more important food resource after fish was either overexploited or became less available as a food resource.

Effects of cultural activities at Wilson-Leonard are less apparent in other taxa or faunal groupings, although most taxa in which there is more than one identifiable specimen tend to have at least one specimen that exhibits burning. This is true for snake, amphibian, lizard, avian, and mammalian specimens, and in particular, for the rodents that make up a large percentage of the total identifiable fauna. Although there is a wide variety of rodent specimens, many of which occur naturally in and around the site area presently, it can be inferred from the higher amount of burning in specimens

of the larger rodents such as *Neotoma* sp., *Geomys* sp., and possibly *Sigmodon hispidus* that some rodents and other small animals also may have been utilized as food sources.

Aside from burning, other characteristics of the bone from the Square 20 column such as high fragmentation, pitting, and etching could be the result of several mechanical or chemical alterations by animals and/or humans. Even though not all of the bone from all levels was analyzed, an effort was made to sample an equivalent and often greater number of coarse bags to fine bags of concentrate per level. Of the 36,634 bones analyzed, 30,814 or 84.1% of the total were recovered from the fine fraction of less than 1/8-inch fragments. Even considering that many of the animals from which these bones were derived were small, most of the small bones are also broken, resulting in a very high level of fragmentation. Although it is difficult to define what is considered a "normal" level of fragmentation, the levels seen in Square 20 suggest mechanical breakdown such as would be expected from mastication or possibly severe trampling. Pitting and etching of a large portion further suggests that the bone underwent digestive processes, although soil acids or groundwater could also produce similar characteristics. There is little evidence of cutting or deliberate shaping of any recovered bone material as might be expected based on the very small specimen size. Only a single specimen of scrap bone from Level 9 (Unit IIIc) shows evidence of gnawing by a small animal. It has been suggested that marrow extraction

FIGURE 35-3. Percentages of rodent from the total amount of identified bone in Square 20.

FIGURE 35-4. Percentages of burning for identified and unidentified bone from Square 20.

FIGURE 35-5. Percentages of fish and turtle from the total amount of identified bone in Square 20.

from larger vertebrate bones might have been a common practice and would also provide a plausible explanation for the extremely fractured and fragmentary nature of a large percentage of the bone (see Chapter 33).

In contrast to Baker's analysis of the macrofauna (see Chapter 33), large mammals, notably artiodactyls, are not a significant component of the microfauna. With the exception of Levels 52 and 53, which are inferred to be the remains of a bison bone bed, large mammals account for less than 5% of the total identifiable fauna in the column, 80% of which are from the coarse fraction (Figure 35-6). This probably is not a result of a sampling error or misidentification since all bone present in the column was collected, and no larger bone fragments were omitted from this study. This is simply the total amount of material present in the column that could be identified as belonging to the large mammal category with a reasonable level of confidence. It is probable that a larger part of the fauna may be attributable to large mammals, but identification of large mammal specimens based on the highly fragmented nature of the sample is extremely difficult even in the coarse fraction. Consequently, identifiable large mammals are not present in significant amounts in the preserved faunal record of Square 20.

PALEOCLIMATIC INTERPRETION

The extralimital presence of seven different rodent taxa in the faunal record at Wilson-Leonard indicates a fairly complex and varied history of fluctuating climates and deeper soil levels between approximately 1000 and 12,000 B.P. These taxa include the bog lemming, *Synaptomys cooperi*; the yellow faced pocket gopher, *Cratogeomys castanops*; the marsh rice rat, *Oryzomys palustris*; the muskrat, *Ondatra zibethicus*; the pine/prairie vole, *Microtus* sp.; the eastern pocket gopher, *Geomys* sp.; and the smooth-toothed pocket gopher, *Thomomys* sp.

Two specimens of *Synaptomys cooperi* were recovered from the fine fraction of Level 65 (mid Unit Igl). Identification was based on two unrooted tooth fragments consistent in size and angulation of the enamel triangles of specimens recovered from Hall's Cave in Kerr County (Toomey 1993) and Miller's Cave in Llano County (Patton 1962). Specimens of *S. cooperi* have also been recovered from other Pleistocene sites in Texas and as far south as San Josecito Cave near Aramberri, southern Nuevo Leon, Mexico (Cushing 1945). The current range of *S. cooperi* includes the southeastern part of Canada south to Tennessee, North Carolina, and northeastern Arkansas and west from Minnesota to northeastern Kansas (Figure 35-7). *S. cooperi* occupies a diverse variety of habitats ranging from wet shrubby grasslands and heavily forested areas to sphagnum bogs or grassy, rocky clearings (Linzey 1983).

The presence of *Synaptomys cooperi* from sites on the Edwards Plateau is usually interpreted as representing a

moister and cooler climate in Central Texas prior to approximately 12,000 B.P. Although the specimens from Wilson-Leonard are inferred to be late Pleistocene in age, their presence in Level 65 must be viewed in the context of the gravel beds in which they were found. The exact period over which the gravel beds were deposited is unknown, but it is likely that deposition took place, at least in part, during the "Clovis Drought" that was ending by ca. 11,000 B.P. This period of dry conditions and low water tables is well documented by stratigraphic and paleohydrological details from various sites in the western United States (Haynes 1991). If this is the case, the presence of *S. cooperi* in the gravels may be the result of redeposition of the specimens from older beds. This scenario would explain the apparent temporal proximity of a specimen of *Cratogeomys castanops* (known from warmer, drier climates) from a slightly higher level.

It has also been suggested by Hibbard (1960) that associations of currently extant allopatric species that were sympatric during the Pleistocene may indicate less-seasonal climates during that time. Although the specimens of *Synaptomys cooperi* and *Cratogeomys castanops* are not exactly sympatric at Wilson-Leonard, they are located close to one another in time. This may indicate that the climate around 12,000 B.P. was more equable and seasonal changes during this time may have been less extreme. Taxa such as *S. cooperi* may be restricted to more northeastern climates because of summer extremes in both temperature and aridity (Lundelius 1992c). If the climate during the Pleistocene was less seasonal with more constant temperatures and moisture, *Synaptomys* may have been able to exist for a longer time at Wilson-Leonard in relict or small populations because of the available water supply and higher levels of localized moisture created by Brushy Creek (Lundelius 1993).

A single specimen of *Cratogeomys castanops* was recovered from the coarse concentrate slightly higher in the section from Level 53 near the base of the transition between Units Isi and Icl. The specimen consists of the right posterior half of an upper P4 with a connected small medial anterior fragment of the tooth. The only other sites in Texas that have produced fossil specimens of *C. castanops* are Hall's Cave in Kerr County and Kincaid Shelter in Uvalde County (Toomey 1993). The specimens at Hall's Cave are much younger than the specimen from Wilson-Leonard (2500-2750 B.P. and 3250-3500 B.P. for Hall's Cave specimens [Toomey 1993] as compared to ca. 11,000-11,500 B.P. for the Wilson-Leonard specimen). A precise age on the *C. castanops* specimen from Kincaid Shelter could not be determined. It is from disturbed fill and has a modern appearance. The current range for *C. castanops* includes northeastern Mexico and most of the Arkansas River drainage in southeastern Colorado and eastern New Mexico as well as the greater part of the Texas-Oklahoma panhandle region and Trans-Pecos Texas (Davidow-Henry et al. 1989) (Figure 35-8).

FIGURE 35-6. Percentages of large mammals from the total amount of identified bone in Square 20.

FIGURE 35-7. Range map of *Synaptomys cooperi*. FIGURE 35-8. Range map of *Cratogeomys castanops*.

FIGURE 35-9. Range map of *Oryzomys palustris*.

As one of the larger gopher species, *C. castanops* requires relatively deep and rockfree soils and tends to be mutually exclusive from other gopher species in its distribution (Davis 1974). Although no *Geomys* or *Thomomys* were recovered from the two levels immediately preceding or following Level 53, the low diversity of taxa and very small sample sizes from these levels precludes any interpretations based on the absences of certain taxa. Although there are no similarly aged specimens of *Cratogeomys castanops* from other sites in Central Texas, its presence at Wilson-Leonard is not disharmonious considering the time period in which it occurred (near the end of the “Clovis Drought”). Dry and possibly xeric conditions at this time are also known from decreases in arboreal pollen and increases in the grass pollen record documented from Boriack Bog in east-central Texas (Bryant and Holloway 1985). Therefore, the presence of *Cratogeomys castanops* from Level 53 further supports the existing evidence for a change from moister and cooler conditions in Central Texas prior to ca. 12,000 B.P. to drier and possibly xeric climatic conditions during approximately 11,000 to 11,500 B.P.

A single specimen of the marsh rice rat, *Oryzomys palustris*, was identified from Level 40 of stratigraphic Unit Isi-c (the Leanne soil). An additional specimen identified by Winkler (1990) was recovered from Level 26 (Unit Id/II) in the previous TxDOT fine-screened square. It dates to ca. 9500 B.P., and is proximal both stratigraphically and temporally to the TARL Level 40 specimen. Other fossil occur-

rences of *O. palustris* in Texas include a partial maxilla from Schulze Cave in Edwards County reported by Dalquest et al. (1969) and an occurrence from Montell Shelter, Uvalde County (Lundelius 1967). Both are Late Pleistocene in age. Marsh rice rats currently inhabit coastal wetland and marshy areas but may also occupy areas where sedges and grass supply sufficient cover (Davis 1974). Their range includes most of the Atlantic coast from southern New Jersey to the tip of Florida and westward to eastern Kansas south to the coastal plain of Texas (Wolfe 1982) (Figure 35-9). Based on the current southeastern distribution of this species, the presence of *O. palustris* at Wilson-Leonard suggests a return to moister conditions between approximately 10,000 and 9500 B.P.

Paleoclimatic conditions based on faunal material above Level 36 or after ca. 9500 B.P. become more difficult to interpret because of the lack of strong paleoclimatic faunal signals. Some conclusions can be drawn, however, from the fairly constant presence of *Geomys* sp. and *Microtus* sp. in Levels 6-39 (Units IIIc through Isi-c). These taxa, as well as *Ondatra zibethicus* (a specimen of that was recovered from Level 36), are present either around or northeast of the Edwards Plateau today but are not found in the immediate area around Wilson-Leonard because of moisture or soil depth limitations.

Ondatra zibethicus, the muskrat, identified by a well-preserved lower left M3, is widely distributed throughout North America and occupies a wide variety of aquatic habitats (Willner et al. 1980) (Figure 35-10). Its only major

FIGURE 35-10. Range map of *Ondatra zibethicus*.

requirement is a permanent source of water and this was most likely Brushy Creek (Semken 1970). Although *O. zibethicus* was not widely distributed in Central Texas during or after the Wisconsin, it is known from several Wisconsin-age sites including Montell Shelter, Uvalde County; Miller's Cave, Llano County; and from a more-recent unit in Damp Cave, Val Verde County. All three of these sites have a permanent source of water close by or have had one in the past (Lundelius 1967). Based on its wide climatic distribution, the presence of *O. zibethicus* at Wilson-Leonard tells little about the climate, but it is unlikely that it was warmer or drier than today.

Specimens belonging to the genus *Microtus* sp., the pine/prairie vole, are identified from 36 isolated teeth and tooth fragments from the upper two-thirds of the column (Units IIIc-Ic1). These specimens could not be identified to the species level (*M. pinetorum*, the pine vole, or *M. ochrogaster*, the prairie vole) due to the high level of fragmentation. *M. pinetorum* occurs in a wide variety of environments from closed-canopy forests to grassy fields providing some sort of shrubby cover and is widely distributed over most of the southeast from the eastern edge of Texas to coastal Virginia and north to south-central Wisconsin (Smolen 1981) (Figure 35-11). *M. ochrogaster* has a more central and north-central distribution in North America and prefers open grasslands, meadows, and prairies from the southern edge of the Texas-Oklahoma panhandle region north into southern Canada and from central Mon-

tana in the west to eastern Kentucky (Stalling 1990) (Figure 35-11). The ranges of both voles are limited by minimum moisture levels.

The distributional pattern of *Microtus* sp. specimens in the Square 20 column is somewhat unpronounced because of low sampling levels, but a small peak in abundance does occur between Levels 28-38 (Units II/IIIa through Isi-c/II), spanning the entire stratigraphic interval of Unit II from approximately 8700-9500 B.P. (Figure 35-12). Occurrences, mostly limited to a single specimen, do occur sporadically in increasingly younger levels up to Level 7 (Unit IIIc) and one outlying specimen occurs deeper in the column in Level 51 (Unit Ic1). The recovery of *Microtus* sp. from many archeological and paleontological sites in Texas dating from the Middle and Late Holocene has been interpreted as an indication of levels of moisture greater than at present during that time (Lundelius 1967); however, more recently obtained evidence of significant drying in the Middle Holocene brings this interpretation into question (Collins 1995; Toomey 1993). A careful review of the distributional evidence for *Microtus* sp. is probably in order, taking into account the possibility of persistence of this taxon in locally favorable microhabitats. The recovery of a specimen from Level 7 indicates that *Microtus* sp. was present in Central Texas until at least 1000 B.P., but decreasing numbers of specimens recovered from Wilson-Leonard, Hall's Cave, Miller's Cave, and the Barton Road site after about 3500 B.P. suggest a gradual extirpation of

FIGURE 35-11. Range map of *Microtus pinetorum/ochrogaster*.

Microtus sp. from Central Texas as moisture levels began to approach their modern limits (Toomey 1993).

Specimens referred to as *Geomys* sp., the eastern pocket gopher, are also consistently present in generally increasing numbers from Level 44 to Level 6 (Unit Icl/Isi-IIIc), with one specimen recovered deeper in the section from Level 55a (Unit Igl/Isi/Icl) (Figure 35-13). Some controversy surrounds the frequently changing specific names and diagnoses of *Geomys* in Texas and it is possible the referred material from Square 20 may include any of seven nominal species whose divisions are based on chromosomal and morphometric differences not diagnosable in fragmented fossil forms. These include *G. bursarius* (north-central and most of the Panhandle), *G. attwateri* (east-central Texas), *G. personatus* (southern Texas), *G. texensis* (Llano uplift region), *G. arenius* (El Paso County), *G. breviceps* (northeastern Texas), and *G. knoxjonesi* (southwestern panhandle) (Sulentic et al. 1991). Because three of these species, *G. bursarius*, *G. breviceps*, and *G. attwateri*, occur immediately adjacent to Travis and Williamson counties and only on their eastern edges, it can be assumed that referred fossil material from Square 20 may belong to any of these three and should not be referred to beyond the generic level *Geomys* sp. (Figure 35-14). Referred material consists of 217 specimens of readily identifiable molars, incisors, and postcranial fragments.

Factors limiting *Geomys* sp. from inhabiting an area are based primarily on soil type and depth, their preference being sandy soils with a low clay content and a minimal depth

of 10 cm (Schmidly 1983). Although there are no distinct patterns in their distribution in Square 20 (see Figure 35-13), the consistent presence of *Geomys* at Wilson-Leonard through the uppermost collected level indicates that soil levels around the immediate site area were sufficiently deep for this gopher to live there at least until 1000 B.P. It is probable that the actual record of *Geomys* sp. at Wilson-Leonard may have ended more recently and is limited by the stratigraphic extent of the column. Specimens recovered from the black fill at Longhorn Cavern in Burnet County, indicate that *Geomys* sp. was present in historic times at least within the vicinity of the cave. Semken (1961) suggests that the extirpation of *Geomys* from areas of Central Texas may be related to the stripping of soil caused by erosion resulting from overgrazing by European livestock. This, along with the natural processes of soil stripping occurring in Central Texas during the last 3,000 years, may have led to current conditions of poor, rocky soils in Williamson County. The faunal record of *Geomys* sp. at Hall's Cave, however, does end at approximately 1000 B.P., suggesting an earlier time of extirpation on the western edge of Central Texas.

The identification of two specimens of *Thomomys* sp. from Levels 24 and 25B (Units IIIa-II/IIIa) suggests drier or possibly equable conditions may have existed in the early Holocene, or at approximately 8700 B.P. Identification of *Thomomys* sp. is somewhat tentative due to a considerable amount of variation seen in gopher teeth from Wilson-Leonard and the apparent atypical shape of one of the two

FIGURE 35-12. Distribution of specimens of *Microtus* sp.

FIGURE 35-13. Distribution of specimens of *Geomys* sp.

FIGURE 35-14. Range map depicting the distributions of the three species of *Geomys* in central Texas. (1) *Geomys bursarius*; (2) *Geomys breviceps*; (3) *Geomys attwateri*.

referred specimens. The specimen recovered from Level 24 is an upper left M2 that is buccally pinched with two plates of enamel, comparable to *T. bottae* (Figure 35-15). The specimen from Level 25 is an upper right P4 which is also comparable to *T. bottae* in having pinched lingual and buccal sides; however, the reentrant loph from the buccal side extends approximately 70-75% across the width of the tooth (Figure 35-16). Although the teeth of most gophers are not exactly symmetrical, the notable asymmetry of this particular specimen is anomalous. The approximate size, unrooted condition, and strong reentrant loph initially raised the possibility that this tooth may be a fragment of a *Synaptomys cooperi* molar, however, there is no apparent breakage on the anterior side of the tooth and the enamel plates are not joined laterally. The age of the specimen is also somewhat younger than the estimated Late Pleistocene records of the extirpation of *S. cooperi* from Central Texas.

If both of these specimens are referable to *Thomomys*, their presence at Wilson-Leonard and sympatry with both *Geomys* sp. and *Microtus* sp. pose some interesting questions about the climate and soil conditions at that time. Early and middle Holocene records of *Thomomys* are rare and were

FIGURE 35-15. Upper left M2 of *Thomomys* sp. (No. 43157-2087) from Level 24 (at 15X).

FIGURE 35-16. P4 fragment of *Thomomys* sp. (No. 43157-2790) from Level 25 (at 15X).

only known from Schultz Cave and Klein Cave until Hall's Cave was thoroughly analyzed by Toomey (1993). *Thomomys* does occur sporadically at Hall's Cave in the early and middle Holocene, and it was interpreted that Hall's Cave probably represented the easternmost range of *Thomomys* during that time interval. Dalquest and Kilpatrick (1973) suggest that the range of *Thomomys* may have been significantly expanded eastward from the latest Pleistocene until approximately 4000 B.P. (Figure 35-17). Based on the Wilson-Leonard specimens, this could indeed be the case and the identification of *Thomomys* specimens from the Square 20 column further expands the known limit at Hall's Cave an additional 100 km eastward.

Dalquest and Kilpatrick (1973) also suggest that *Geomys* and *Thomomys* were sympatric over a large area of the Edwards Plateau during the late Pleistocene and Holocene. Toomey (1993) interprets this sympatry more as a result of *Geomys* expanding their range westward rather than an eastward range expansion for *Thomomys*, but he questions why there was no eastward expansion across the Edwards Plateau when specimens of *Thomomys* have been recovered from Pleistocene deposits such as Lubbock Lake and Howard Ranch north of the plateau. With the identification of *Thomomys* from early Holocene deposits at Wilson-Leonard, this gap in the Central Texas record is potentially filled; the expansion of *Thomomys* did indeed reach the eastern edge of the Edwards Plateau. Its presence during the early Holocene at Wilson-Leonard, therefore, has important implications for future range studies of smooth-toothed pocket gophers.

The sympatric association between *Thomomys* sp. and *Microtus* sp. is more complicated since conditions of in-

creased moisture indicated by the presence of *Microtus* appear contrary to the dry soil conditions preferred by *Thomomys*. It is possible that at the time *Thomomys* and *Microtus* were sympatric at Wilson-Leonard, one or both of these taxa might have been marginal in the area. Other sympatric associations of *Thomomys* and *Microtus* do exist in low numbers at other sites in Texas including the late Pleistocene deposits of Shultze Cave (Dalquest et al. 1969) and also at Hall's Cave in several mid Holocene levels (Toomey 1993). Based on observations from Shultze Cave, Dalquest et al. (1969) report a decrease in abundance of *Microtus* specimens after the Pleistocene in western Texas. This decrease in the presence of *Microtus* sp. corresponds to an increase in the number of *Thomomys* sp. present in post-Pleistocene levels.

This pattern generally can be observed during the early Holocene at both Hall's Cave and Wilson-Leonard. Toomey (1993) suggests that *Thomomys* sp. was present around Hall's Cave in low densities from approximately 10,500 B.P. until 5500 B.P. Between 5500 B.P. and 2500 B.P., *Thomomys* became more common and was continuously present in relatively high population densities before its decrease in abundance and gradual extirpation after approximately 2500 B.P. *Microtus* is consistently present at Hall's Cave from the Late Pleistocene to approximately 4500 B.P., after which it was still a common taxon but present in much lower numbers. The levels at Hall's Cave with the greatest abundance of *Microtus* are Late Pleistocene, suggesting a gradual decline in population from that time. The two Wilson-Leonard specimens of *Thomomys* from Levels 24 and 25B (approximately 8700 B.P.) also occur later than the peak abundances of *Microtus* in Levels 28-38 (approximately 8700-9500 B.P.) (see Figure 35-12). Although the sample size of both *Thomomys* and *Microtus* at Wilson-Leonard is much smaller and the timing is earlier in the Holocene, the pattern of distribution still holds considerable significance.

It is also possible that the occurrence of *Thomomys* at Wilson-Leonard was more marginal than that of *Microtus*. Wilson-Leonard is much farther east from the current extralimital boundary of *Thomomys* than Shulze Cave or Hall's Cave, and it is likely that Wilson-Leonard may represent the extreme margin of its boundary for the early Holocene. While conditions for *Microtus* may have been in decline during this time, small populations persisted on the eastern side of the Edwards Plateau with relict populations surviving in isolated microhabitats into historic times (E. L. Lundelius, personal communication 1996).

An alternative explanation for the *Thomomys*/*Microtus* sympatry is that more equable conditions during the late Pleistocene, proposed by Hibbard (1960), may have lingered into the early Holocene in the eastern portion of Texas, making the environment around Wilson-Leonard more inviting for disharmonious faunal members at that time. This would be difficult to support, however, since only one taxon is disharmonious and it is represented by only two specimens.

FIGURE 35-17. Range map of *Thomomys bottae*.

Based on the lack of *Thomomys* in other sites on the eastern edge of the Edwards Plateau, one can only conclude that the conditions at Wilson-Leonard or the area immediately surrounding the site must have been suitable to meet the minimum tolerances of both animals on at least a marginal level.

SUMMARY

Despite the fragmentary nature and poor preservation of the Square 20 column faunal sample, a fairly diverse fauna with several species useful as paleoenvironmental indicators was identified. The identifications of seven genera and species of extralimital rodents allowed for an interpretation of complex, fluctuating climates and moisture levels at the Wilson-Leonard site between ca. 12,000 to 1000 B.P. The recovery of *Synaptomys cooperi* from the gravels of mid Igl suggests a period of cooler, moister conditions prior to 12,000 B.P. and may represent specimens redeposited from older stratigraphic layers. The presence of *Cratogeomys castanops* slightly higher in the section (near the transition of Units Icl, Isi, and Igl) suggests a climatic change to more-xeric conditions and the presence of relatively deep soils from ca. 11,500 to 11,000 B.P. The identification of the marsh rice rat, *Oryzomys palustris* from Unit Isi-c and the muskrat, *Ondatra zibethicus*, from slightly higher in the section in Unit II indicates a return to moister conditions at Wilson-Leonard during approximately 9500

to 8700 B.P. and the presence of a permanent source of water at Brushy Creek.

The recovery of two specimens of *Thomomys* sp. in lower Unit IIIa suggests drier or possibly more equitable conditions returned to Central Texas ca. 8700 B.P. The sympatric association of *Thomomys* sp. with *Microtus* sp. suggests that local conditions surrounding Wilson-Leonard may have supported a disharmonious faunal community and conditions at that time may have been marginal for either *Thomomys*, which requires drier soils, or for *Microtus*, which requires minimum levels of moisture. From approximately 8700 B.P. to ca. 4000 B.P., the climate was drier, and soils became shallower on the Lampasas Cut Plain. This is supported by the gradually declining abundance of *Microtus* sp. from the middle of Unit II to Unit IIIc at the top of the section. Because both *Microtus* sp. and *Geomys* sp. are present fairly consistently through the top of the section but neither are present in the area today, it can be inferred that both of these rodents became extirpated from this area within the last 1,000 years due to insufficient moisture and soil levels. It is also possible that the extirpation of *Geomys* may have occurred within historic times as a consequence of the erosional effects of overgrazing.

In addition to their importance as paleoenvironmental indicators, the recovery of two taxa of extralimital gophers, *Cratogeomys castanops* and *Thomomys* sp., are the first to be reported for the eastern edge of the Edwards Plateau,

and their presence at Wilson-Leonard represents the easternmost known occurrences for these taxa. Undoubtedly, this will have important implications for future paleoenvironmental research in Central Texas as more of the fossil record is uncovered. In this regard, there also remains the unanalyzed material from Square 12 that upon analysis has the potential of increasing the sample, and thereby the resolution, of the microfaunal data from the site.

Some controversy surrounds the usefulness of fine screening a site because of the time-consuming procedures and high level of effort involved in the identification of extremely small fragments. In the light of this, it is important to note that the paleoclimatic information gained from

the microfauna recovered at the Wilson-Leonard site would not have been possible without the techniques of fine-screen recovery. With the exception of the *Cratogeomys* and *Ondatra* specimens, all of the other extralimital rodents identified from the Square 20 column were recovered from the fine fraction, including 100% of the *Microtus* specimens and over 95% of the *Geomys* specimens. Furthermore, little diversity would have been reported without all the small rodents, reptiles, amphibians, fish, and birds recovered from the fine fraction. Wilson-Leonard thus demonstrates the benefits of fine-screening in order to retrieve potentially vital paleoecological data, and the implementation of this technique should be encouraged at all archeological sites showing a viable potential.

CHAPTER 36

EGGSHELL ANALYSIS

by Susan Decker

INTRODUCTION

Numerous small fragments of bird eggshells were recovered from the 1/8-inch and 1/16-inch mesh of the water-screened matrix. The fragments were found in matrix from Units I, II, and III, some associated with features and some from nonfeature contexts. For the present analysis, which seeks a viable method for studying archeological eggshells, a sample of 172 fragments, all from feature contexts, were analyzed. These were retrieved from feature sediment samples from both the TxDOT and TARL excavations; the samples were water screened (see Chapter 34) and picked by the present author. Other faunal remains were also recovered in this process (see Chapters 26 and 35), but only the eggshell is reported here.

Wilson-Leonard is one of the few prehistoric sites in Texas that has archeological bird eggshell among its reported faunal remains. This is in part due to the fact that very small fine-screened eggshell fragments are difficult to identify. They can easily be mistaken for small fragments of snail shells unless they are sorted under a microscope. However, a technician with a microscope and a sample of modern eggshell for comparison can be trained to recognize the attributes that distinguish bird eggshells from snail shells: small eggshell fragments have a matte finish and are almost flat, with pores on the exterior surface and a rough interior surface; snail shells are shiny, curved, and smooth with no pores, and they are made of microthin layers. The eggshells of tortoises, turtles, and certain species of snakes are either soft shelled or have a distinctly different morphology from that of bird eggshells and would not normally be confused with them. No reptile eggshells were present in the Wilson-Leonard samples.

The focus of this analysis is to determine the minimum number of species represented in each feature and the size range of those species. No attempt is made here to analyze spatial or temporal distributions of the eggshell fragments,

because they were recovered from different volumes of matrix and only from the features that had adequate numbers of sediment samples (see Chapter 26). The counts are minimums and are not comparable between features; other features not listed here may also have contained eggshell that was not retrieved. The value of this investigation lies in its contribution of a new line of evidence for human subsistence behaviors. By providing a means for analyzing bird eggshells, this study expands the scope of retrievable data for avian fauna, which are not otherwise well represented in most archeological sites because their thin, hollow bones are easily fragmented and broken down chemically or microbially.

PRESERVATION

Eggshells of domestic fowl are known to contain calcium carbonate as well as small amounts of magnesium carbonate and tricalcium phosphate, along with other trace elements (Burley and Vadehra 1989:Table 3.2; Tyler 1969:95). The calcium content is fairly constant, mostly deriving from feed, although 30-40% of it is supplied by the female bird's bones (Burley and Vadehra 1989:60). Calcium carbonate accounts for 97% or more of the shell, while only 2-3% is made up of organics, which include proteins, carbohydrates, and nitrogen (Burley and Vadehra 1989:35, 38-39, Tables 3.2, 3.6).

The high mineral content, especially of calcium carbonate, means that eggshells are not likely to be broken down by leaching or by chemical taphonomic processes in a matrix that also has a high calcium carbonate content, as is the case at the Wilson-Leonard site. Tyler (1969:82) reported that an egg from a tomb in Cyprus dated to 700 B.C. had not changed in its crystal structure, which suggests that preservation is not necessarily the reason for the lack of archeological eggshell finds. But the shells do break easily into small fragments, and therefore, fine screening is usually

required for their recovery. Most of the fragments from the Wilson-Leonard features measured between 1/8-inch and 1/16-inch, while a few were larger than 1/8-inch.

STRUCTURE

Bird eggshells are formed from the inner surface outward as mineral crystals develop at certain cell points on the membrane that surrounds the ovum (Burley and Vadehra 1989:35-44, 58-62; Sidell 1993:6-7). The crystals build up from those points into cones, called mammillae, with the cone tip at the original cell point. The mammillae stop growing when they have fused together, and at this point, a palisade or column layer of elongated crystals forms. A very thin crystalline layer forms at the external surface in some species. Interspersed among the mammillae are pores that allow the exchange of gases, particularly carbon dioxide, and water vapor between the inside of the egg and the outside (Burley and Vadehra 1989:43). A very thin organic cuticle about 5-30 microns thick appears as an external membrane in some species (Burley and Vadehra 1989:27).

The crystalline pattern of the mammillae cones is unique to each species, as is the distribution of the pores. The pigmentation pattern of the shell is also species specific, but the pigment is primarily applied to the organic cuticle on the exterior surface of the egg and is rarely preserved archeologically (Burley and Vadehra 1989:31; McKusick 1986:Chapter 12).

PREVIOUS METHODS

A recent experimental study by Sidell (1993) demonstrates that scanning electron micrographs (SEM) of the mammillae on the inner egg surface and of the eggshell cross-sections allow precise identification to species, because the exact crystalline structure is clearly visible at this level of enlargement. Although she provides SEM photographs of a broad range of bird species, many of these species—such as puffin and ostrich—are not regularly found in archeological contexts, or in Texas. However, she does have data for turkey, rock dove, and quail that can be useful to archeological analyses in Texas. Unfortunately, it is not yet known whether archeological eggshells exposed to depositional and long-term burial processes can be compared in SEMs to modern, fresh eggshells. If the mammillae remain intact in the archeological specimens, this technique should be successful. However, in order to match archeological eggs to modern species, a very large SEM database needs to be compiled of modern eggshells. There are over 400 bird species currently present in a small region of south-central Texas alone (Kutac 1994:47), and at least that many need to be in the comparative database, including species that may have been extant in the past but that are no longer found in the area. In order to speciate archeological eggshells, each of those fragments would need to be photographed using the

SEM technique and matched to the modern specimens. The matching process will be difficult and time-consuming until more systematic methods are developed for categorizing attributes visible in SEMs. Until then, we can extract many useful data from eggshells by other means, even if we cannot identify them to species.

The size and density of the mammillae were identified as characteristic of each species as early as 1871 (Romanoff and Romanoff 1949:164). The area of the mammilla cross-section has been shown to vary by a negligible 1/1000 mm within one egg and one species in modern specimens (Romanoff and Romanoff 1949:164 and Table 13). For archeological specimens, however, which tend to retain dirt between the mammillae, it is difficult to determine the mammilla boundaries. The density of mammillae per unit area is equally difficult to ascertain on archeological specimens, because many are obscured by dirt or are incomplete. In preliminary measurements of the Wilson-Leonard eggshell fragments, the difficulty in determining the mammillae boundaries caused a variability in mammillae width values of up to 50% in one shell, even at 200X enlargement. As a result, the effort to measure the mammillae was abandoned.

Pore attributes are related to the bird species but are generally not unique to one species or cannot be determined on the basis of a small fragment of eggshell. The shape of the pores is fairly constant within a species, but the number of shape categories is so small that many species have the same pore shape (Romanoff and Romanoff 1949:168). Pores are distributed unevenly over the surface of a single egg (Romanoff and Romanoff 1949:166-167), although not randomly (Tyler 1969:100), which means that a fragment of eggshell from an unknown part of the egg cannot be classified to a single taxon on the basis of pore density. The number and size of pores per egg varies within each species, which eliminates them as speciating criteria.

A NEW METHOD

A different approach is needed, one that is less affected by shell fragmentation and adhering dirt. It should be usable on tiny fragments and measurable even if some dirt obscures part of the shell. A comparative collection or data set should be available for all species that are potentially represented in the archeological sample. The measurements should have a direct relationship to the bird species. They should have a low degree of variability within one species and should be measurable to a high degree of accuracy.

Eggshell thickness satisfies all of these criteria. No matter how small the eggshell fragment is in area, its thickness is still measurable. Adhering dirt normally does not obscure all cross-section views on a specimen, and the boundaries of the surfaces are easily determinable. A comprehensive data set for eggshell thickness for most bird species in the world is available for comparing archeological eggshell thicknesses in an exhaustive hand-

book of measurements, including eggshell thickness, for all bird orders (Schönwetter 1960-1988).

Because eggshell thickness is directly related to the volume, size, and weight of the egg, which are in turn related to the size of the bird, Romanoff and Romanoff (1949:150) determined that shell thickness can be used to identify taxa. However, the eggshell thickness is the same for many species, and therefore thickness can only be used to establish to what size group the bird belongs, not the precise species (Tyler 1969:110).

The relationship between the size of an egg and the size of the female bird is constant within each species. Egg mass (W) is related to bird body mass (B) by the equation $W=0.277B^{0.770}$ (Ar et al. 1979:335). Very small birds have eggs that are a greater percentage of their body weight than very large birds (Romanoff and Romanoff 1949:61, Figure 40). In the smallest bird species, egg mass is about 20% of body mass, while it is only 2% in the largest birds (Ar et al. 1979:335).

Romanoff and Romanoff (1949:107) have demonstrated that the weight of the eggshell is directly related to the total weight of the egg. Their formula is based on fresh, whole eggs, and cannot be applied to archeological eggshell fragments, but it shows that the eggshells have a predictable relationship to egg weight, which is related to egg size. They note a difference between altricial birds, which are naked and helpless when hatched, and precocial birds, which are covered in down and able to move when hatched. The shell of altricial bird eggs is only 5% of the egg weight, while the shell of precocial birds is 10-14% of the egg weight (Romanoff and Romanoff 1949:108). In general, the smaller the egg, the thinner the shell and the smaller the percentage of shell weight to egg weight (Romanoff and Romanoff 1949:115). Eggshell thickness is not greatly variable in the eggs of a single bird (Romanoff and Romanoff 1949:151; Tyler 1946:111, 113) and is considered to be an inherited characteristic (Tyler 1969:107). Ar et al. (1979:332) found that in any one egg, the shell thickness varies only by $\pm 7\%$ around the equator and at each pole. Usually the broad pole is thinner than the narrow pole; the equatorial region of an egg shows little variation in thickness (Tyler 1969:109).

Eggshell thickness is affected by factors that change the calcium metabolism of a bird, namely seasonality, nutrition, "physiological efficiency," and "hereditary endowment" (Romanoff and Romanoff 1949:152). The season of the year is a factor because the rise in temperature above about 90°F or a rise in humidity creates a decrease in shell thickness, which differs from bird to bird (Romanoff and Romanoff 1949:153; Tyler 1969:108-109). However, Jenkins and Tyler (1960:330) suggest that the effect of temperature may depend on the month in which the bird comes into lay due to metabolic processes early in the laying period that tend to increase shell thickness, counteracting the effects of temperature and humidity.

Thinned eggshells can be caused by a deficiency in calcium sometimes due to a deficiency in Vitamin D which affects the calcium metabolism, but Tyler (1946:112, 1969:108) states that a bird will not lay an egg if its calcium reserves would produce one with less than 60% of the normal shell thickness. The effects of an excess of calcium in the bird's diet are equivocal: in one study of domesticated chickens, a high calcium diet produced thicker shells although only in the earliest stage of the experiment (Jenkins and Tyler 1960:324, 330), while a later study found that high calcium levels did not increase the thickness of the shell but instead appeared to be the cause of soft-shelled eggs (Tyler 1946:113). Likewise in one study, phosphorus had no effect on shell thickness (Jenkins and Tyler 1960:324), while in another experiment, low phosphorus levels were linked to thicker shells (Tyler 1969:108). In general, any effects due to changes in the diet are immediately reflected in the eggshell thickness, whereas those same changes have a delayed effect on the composition of the more slowly forming yolk (Jenkins and Tyler 1960:330).

For domesticated birds, the greatest variability in shell thickness from one bird to another in one species occurs when the birds first come into lay, whereas they tend to reach a fairly uniform thickness thereafter (Jenkins and Tyler 1960:330). But since domestication and year-round breeding apparently increases variability, the same may not be true for wild species (Romanoff and Romanoff 1949:115, 151). Although the number of eggs in a clutch affects egg size, wild birds have a fairly constant number of eggs within a species (Romanoff and Romanoff 1949:10), and so the variability should be more predictable for wild species than for domestic birds. It has been noted, however, that wild birds usually have at least one egg in a clutch that is not of the average size, whether too large or too small (Romanoff and Romanoff 1949:65, 151). Dwarf eggs have been observed for wild birds (Romanoff and Romanoff 1949:259), but are not common enough to be statistically probable in any archeological sample.

Eggshell thickness also varies with the length of incubation, with the greatest thickness occurring just after laying and the least just prior to hatching, as the developing embryo reabsorbs some of the calcium in the eggshell for bone growth. In modern chickens, 0.1 to 0.15 g of calcium is transferred from the shell to the embryo (Tyler 1969:122). This accounts for about 80% of the calcium needed for the embryo's skeleton, and its dissolution starts after about day 10 of incubation (Burley and Vadehra 1989:284). If eggs are collected before this period, then no alteration in thickness will occur. The eggs of wild birds are usually fertilized, and so any difference between fertilized and unfertilized eggs should not be a factor in variability for archeological eggshell.

Fortunately, the uniformity of eggshell thickness within any one species is fairly high, even given potential variability factors. In an experiment by Ar et al. (1979:Table 1) on

eggshell strength, multiple thickness measurements were taken for 47 species and reported as the mean, the standard error (assumed to be one standard deviation from the mean, given the way the term is used), and the number of eggs measured. Of the 38 wild species having eggshells not thicker than 0.35 mm, like the Wilson-Leonard sample, all but one had standard errors of ± 0.012 mm or less, and 31 species had errors of ± 0.006 mm or less; although some were based on less than 5 measurements, others had more than 10 measurements. In the case of the Ringed Turtle Dove (*Streptopelia risoria*) in 75 measurements the deviation from the mean was only ± 0.001 mm. Only *Anas platyrhynchos* had a higher standard error of ± 0.019 mm.

As a result, the range of variation in eggshell thickness for a given species, accounting for variations due to clutch position, temperature, diet, and other factors, is usually not very great. Given a range of variation demonstrated to be normally ± 0.012 mm or less at 68% probability and ± 0.024 mm at a confidence interval of 95%, the variation for the species in the Wilson-Leonard size range should not be expected to be greater than ± 0.02 mm in a conservative estimate. To be even more conservative, we can allow for a variation of ± 0.04 mm for species with eggshells measuring 0.31 mm or thicker to include the range of variability of *Anas platyrhynchos* at a 95% probability level. In this analysis, I have assumed that an archeological eggshell fragment of thickness $T=0.30$ mm or less should be assigned to a bird size group that has a thickness of $T \pm 0.02$ mm and fragments of thickness $T=0.31$ mm or greater to a size group of $T \pm 0.04$ mm. I have also assumed that if two archeological eggshells have a difference in thickness of more than 0.04 mm (accounting for a deviation of up to 0.02 mm for each specimen), they can be considered to be different species (or a difference of 0.08 mm if larger than 0.31 mm thick). Fortunately, eggshells can be measured with an accuracy of less than a hundredth of a millimeter.

MEASUREMENT TECHNIQUE

One of the greatest difficulties in working with archeological eggshell is measuring the tiny fragments. Modern shell is sometimes measured with a micrometer screw gauge with anvil jaws (Tyler 1969:105). But the calipers do not account for the slightly curved surface (Tyler 1969:112) unless they have a ball attachment, as used by Ar et al. (1979:332). The problem of holding a fragment smaller than 1/16-inch in width or length between caliper jaws is obvious. Others use digital calipers or an eyepiece graticule in a light microscope, although Sidell (1993:9) warns that calipers are not as accurate as the graticule. I found that I could not get a sufficiently accurate reading with the micrometer lens/graticule in a light microscope, because standard micrometers do not have sufficiently fine divisions. A method of indirectly gauging the shell thickness is to use formulae to calculate the surface area and the weight of

shell per unit area (Jenkins and Tyler 1960:323-324). The formula for surface area, however, requires the fresh whole egg weight and therefore cannot be used for archeological eggshell.

The measurement problem was solved in the current analysis by using a digital imaging computer program hooked up to a videocamera attachment on a light microscope. First of all, I used a slide micrometer to set up calibration files in the computer for the magnifications I intended to use. For setting up the eggshell fragments under the microscope, I pressed them into a small piece of wax so that the cross-sectional edges I wanted to measure were immobile in the microscope's field of view. The wax was on a tray that I placed on a movable stage, which allowed me to move the fragments to precisely the desired area on the shell. I measured the thickness at 80X.

I loaded the image into the computer with a database in EnhancedView Version 3.2.1.0. I then imported the image into Image-Pro Plus Version 1.2 and accentuated the outlines using the program's filters. For thickness, I measured three points on the image, all perpendicular to the shell wall, by drawing a line from edge to edge in Image Pro Plus and having the program calculate the distance of the line, based on the calibration I had entered. The measurements were in fractions of a millimeter accurate to eight decimal places, because the program measures the number of pixels in the line, which is much more accurate than I could achieve with a micrometer lens. In many cases, two of the three thickness measurements were the same up to the third or fourth decimal place (i.e., to 1/10,000 of a millimeter), for which reason I am confident of their accuracy.

Because some of the fragments had experienced abrasion and postdepositional weathering, some surface areas were thinner than others. In all cases, at least one of the three measurements was at the thickest point on the shell. For the final analysis, only the thickest of the three measurements per fragment was used, because it is closest to the original thickness. I expected the shells to be slightly thinner than the original, but never thicker. In Image Pro Plus, the measurements were saved as tool files and then imported into Microsoft Excel.

DETERMINATION OF MINIMUM NUMBER OF SPECIES AND SIZE GROUPS

For each feature, the minimum number of species represented by the eggshell thicknesses is provided. This was determined by assuming that thickness values within 0.04 mm of each other could be from the same species (and accounting for a difference of up to 0.08 mm for the thickest shells), but values with a distance greater than 0.04 mm must be separate species. For example, in Feature 206, the eggshells with thicknesses of 0.22 and 0.24 mm could be from the same species, but both must be from a different species than the eggshell that is 0.17 mm thick. The eggshells could

actually belong to more species than this minimum, the maximum being the total count of eggshells.

The approximate size range of the species represented by the eggshells is determined by matching the eggshell thicknesses with known thicknesses of eggshells of modern species. In compiling a list of the species that could be represented in the archeological sample, the ideal data set would be a list of bird species known from archeological sites from the same geographical region and time period as Wilson-Leonard. Unfortunately, when avian species are found among the faunal remains of archeological sites, they are rarely identified to species. As a result, I had to employ a list of modern species that currently reside in the area. I chose species from Kutac and Caran (1994) that are present in south-central Texas today and that are known to have nested here. Obviously some species of birds are now present in Williamson County that were not present during the occupation of the site, while other species that used to inhabit the area are no longer found in these same ranges. Therefore this list will not be completely accurate for prehistoric Texas, but it at least includes species that have the potential for being found archeologically.

In the 19-county area that includes Williamson County, a total of 445 species of birds currently can be found or have been reported by birdwatchers in the recent past (Kutac 1994:47). I reduced this total to exclude the migratory birds that nest elsewhere, birds whose presence is considered accidental, as when a Gulf coast storm blows seabirds inland, and the species that have been introduced in historic times. I also excluded all birds whose eggshells are significantly thinner or thicker than the archeological eggshells that make up the Wilson-Leonard sample. I further excluded all species for which no eggshell thickness measurements are available.

The resulting list of 60 species was then matched with Schönwetter's (1960-1988) multivolume treatise on eggshells, and I used his thickness measurements for each of the species in the compiled list, so that all of the comparative measurements would derive from a consistent source by a consistent method (Table 36-1). In matching the archeological eggshell thicknesses to the comparative data set, thickness values to two decimal points were used to match Schönwetter's measurements. It should be noted that his thickness measurements were only rarely directly measured on the shell, because he examined whole eggs. Instead, he used a formula (Schönwetter 1985 Lief.42:79 ff) based on the egg weight, which is directly related to shell thickness. His thickness values should be considered average values for the species.

In some cases, Schönwetter gives data for several subspecies of the species listed by Kutac. In these cases, I chose the subspecies that Schönwetter listed as present in or near Texas (see Table 36-1). The comparative species list does not have species with eggshell thickness values of 0.21, 0.22, and 0.28 mm. This is because no species with

eggshells of these thickness values met the criteria given above for inclusion on the list. Any archeological eggshells that have these values are assigned to the nearest size group.

It cannot be overemphasized that the comparative data from modern species may not be representative of the species available to the Wilson-Leonard occupants. In the following analysis, when I state that the eggshells from a certain feature are from the size group of the wood duck or in the size range of the pileated woodpecker, I am only using these species as a means of relating the eggs to the size of the bird. I do not mean that these eggshells are definitely from the species wood duck or pileated woodpecker. For each thickness value, dozens of species belong to the same size group, and the ± 0.02 -mm variability means that any of the species with thicknesses within that standard error could belong in the same group. The exact species cannot be identified without extensive SEM analysis.

RESULTS

The 172 eggshells range in thickness from 0.12 mm to 0.35 mm (Table 36-2). They are all larger than most of the passerines and are all smaller than wild turkey, the vultures, and most of the goose species. At the small-size end of the range are eggshells with thicknesses like those of kingfishers, woodpeckers, grackles, and others, while the largest eggshells in the sample are similar in size to the larger hawks, ducks, and owls, among others (see Table 36-1). Eggshells were found in sediment samples from 18 features distributed throughout the three major stratigraphic units.

Unit III

Sediment samples from six Unit III features yielded 35 eggshell fragments with thickness values ranging from 0.15 to 0.33 mm (Table 36-3). The minimum number of species ranges from one to three, with the Feature 204, 206, and 213 samples having at least three species each. The Feature 204 and 206 samples each have a well-defined smaller species group and two larger groups that could represent several more species. The Feature 215 sample has two well-separated species size groups, and Burned Rock Midden 1 and Feature 209 sample each have a minimum of one species.

Most of the shell fragments in Unit III are greater than 0.22 mm in thickness, which puts them in the lower (thicker) half of the comparative species list in Table 36-2. The features have similar patterns of size distribution, and some of the same species may be represented in more than one feature. The Burned Rock Midden 1 sample had two eggshells in the size range of the Black-crowned night-heron. The Feature 206 and 204 samples have a wider spread of thickness values, mostly in the 0.22 to 0.33 mm range but also smaller. The Feature 206 sample has one tern-sized shell fragment and the Feature 204 sample has two in the killdeer and crow size range. The Feature 209 sample has a single duck-sized

TABLE 36-1
Comparative Modern Species List by Eggshell Thickness

Eggshell Thickness (mm)*	Common Name	Species** (Subspecies*)
0.12	Green kingfisher	<i>Chloroceryle americana (septentrionalis)</i>
0.12	Lesser nighthawk	<i>Chordeiles acutipennis (texensis)</i>
0.12	Least bittern	<i>Ixobrychus exilis (exilis)</i>
0.12	Red-bellied woodpecker	<i>Melanerpes carolinus (carolinus)</i>
0.12	Bronzed cowbird	<i>Molothrus aeneus (loyei)</i>
0.12	Great-tailed grackle	<i>Quiscalis mexicanus (prosopidicola)</i>
0.12	Common grackle	<i>Quiscalus quiscula (quiscula)</i>
0.13	Spotted sandpiper	<i>Actitis macularia</i>
0.13	Belted kingfisher	<i>Ceryle alcyon (alcyon)</i>
0.13	Golden-fronted woodpecker	<i>Melanerpes aurifrons (aurifrons)</i>
0.14	Chuck-will's-widow	<i>Caprimulgus carolinensis</i>
0.14	Common nighthawk	<i>Chordeiles minor (henryi)</i>
0.14	Yellow-billed cuckoo	<i>Coccyzus americanus (occidentalis)</i>
0.14	Ruff/Reeve	<i>Philomachus pugnax</i>
0.15	Killdeer	<i>Charadrius vociferus (vociferus)</i>
0.15	Pileated woodpecker	<i>Dryocopus pileatus (pileatus)</i>
0.15	Burrowing owl	<i>Speotyto cunicularia (hypugaea)</i>
0.16	Northern flicker	<i>Colaptes auratus (auratus)</i>
0.16	American crow	<i>Corvus brachyrhynchus (brachyrhynchus)</i>
0.17	Forster's tern	<i>Sterna forsteri</i>
0.17	Common tern	<i>Sterna hirundo (hirundo)</i>
0.18	Ringed kingfisher	<i>Ceryle torquata (torquata)</i>
0.18	Bobwhite	<i>Colinus virginianus (texanus)</i>
0.18	Montezuma quail	<i>Cyrtonyx montezumae (mearnsi)</i>
0.18	American kestrel	<i>Falco sparverius (phalaena)</i>
0.18	Purple gallinule	<i>Porphyryla martinica</i>
0.19	Chihuahuan raven	<i>Corvus cryptoleucas</i>
0.19	Greater Roadrunner	<i>Geococcyx californianus</i>
0.20	Short-eared owl	<i>Asio flammeus (flammeus)</i>
0.20	Upland sandpiper	<i>Bartramia longicauda</i>
0.20	Common raven	<i>Corvus corax (sinuatus)</i>
0.20	Screech owl	<i>Otus asio (aiken)</i>
0.20	Black Skimmer	<i>Rhynchops niger (R. nigra nigra)</i>
0.23	Black-crowned night-heron	<i>Nycticorax nycticorax (hoactli)</i>
0.24	Merlin	<i>Falco columbarius (columbarius)</i>
0.25	Common black-hawk	<i>Buteogallus anthracinus (anthracinus)</i>
0.25	Common moorhen	<i>Gallinula chloropus (cacchinnans)</i>
0.25	Barn owl	<i>Tyto alba (pratincola)</i>
0.26	Green-winged teal	<i>Anas crecca (carolinensis)</i>
0.26	Great Egret	<i>Casmerodius albus (egretta)</i>
0.26	Oldsquaw	<i>Clangula hyemalis</i>
0.26	Ring-billed gull	<i>Larus delawarensis</i>
0.27	Cinnamon teal	<i>Anas cyanoptera (cyanoptera)</i>
0.27	Northern harrier	<i>Circus cyaneus (hudsonius)</i>
0.27	American coot	<i>Fulica americana (americana)</i>
0.29	Northern pintail	<i>Anas acuta (tzitzihoa)</i>
0.29	Greater prairie chicken	<i>Tympanuchus cupido (pinnatus)</i>
0.30	Mottled duck	<i>Anas fulvigula (maculosa)</i>
0.30	Anhinga	<i>Anhinga anhinga</i>
0.31	Cooper's hawk	<i>Accipiter cooperii</i>
0.31	Mallard	<i>Anas platyrhynchos (platyrhynchus)</i>
0.32	Wood duck	<i>Aix sponsa</i>
0.32	Broad-winged hawk	<i>Buteo platypterus (platypterus)</i>
0.32	Ross' goose	<i>Chen rossii</i>
0.33	Barred owl	<i>Strix varia (helveola)</i>
0.34	Red-shouldered hawk	<i>Buteo lineatus (texanus and alleni)</i>
0.34	Red-breasted merganser	<i>Mergus serrator</i>
0.35	Prairie falcon	<i>Falco mexicanus</i>
0.35	Common merganser	<i>Mergus merganser (americanus)</i>
0.35	Harris' hawk	<i>Parabuteo unicinctus (harrisi)</i>

*From Schönwetter 1960-1988.

**From Kutac 1994.

TABLE 36-2
Counts of Feature Eggshells by Thickness

Thickness (mm)	Count
0.12	1
0.13	5
0.14	1
0.15	9
0.16	13
0.17	8
0.18	17
0.19	11
0.20	3
0.21	5
0.22	5
0.23	4
0.24	7
0.25	18
0.26	13
0.27	12
0.28	14
0.29	10
0.30	6
0.31	5
0.32	1
0.33	3
0.34	0
0.35	1
Total:	172

eggshell fragment in the range of the mottled duck or the anhinga.

The Feature 213 and 215 samples have similar distributions to those of Features 204 and 206 but with slightly narrower ranges. The Feature 213 sample has two shell fragments in the quail- and roadrunner-size group and at least two other species ranging in size from the night-heron to the Greater prairie chicken. The Feature 215 sample has fragments in the killdeer/crow/quail-size range and at least one more species in the merlin- to coot-size range.

In general, the Unit III samples have similar thickness distributions, covering a wide range of sizes that cluster in the 0.15-0.19-mm and 0.22-0.33-mm ranges. No one of the features has a unique or distinctive distribution pattern. The presence of multiple species in some of these samples indicates that the eggshells are not the result of a single intrusive event in which the fragments of one egg became buried in the feature fill.

Unit II/IIIa

Samples from three features found in the II/IIIa transition unit (Features 181, 233, and 224) contained a total of 122 eggshell fragments (Table 36-4). The Feature 181 sample contained the highest counts of any of the features, but this

TABLE 36-3
Unit III Feature Eggshell Thicknesses (N=35)

	Stratigraphic Unit						Totals
	Y/IIIc* Burned Rock Midden 1	IIIb/c Feature 206	IIIb Feature 204	IIIb Feature 209	IIIa/b Feature 213	IIIa/b Feature 215	
Sediment sample volume (liters)	3.0	9.8	9.0	unknown	4.5	4.5	
Thickness (mm):							
0.12							
0.13							
0.14							
0.15			1			2	3
0.16			1			1	2
0.17		1					1
0.18					1	1	2
0.19					1		1
0.20							
0.21							
0.22	1	1					2
0.23	1				1		2
0.24		2				1	3
0.25			1			2	3
0.26			1		2	1	4
0.27		1			1		2
0.28		1	1			1	3
0.29		2			1		3
0.30			1	1			2
0.31		1					1
0.32							
0.33			1				1
0.34							
0.35							
Totals:	2	9	7	1	7	9	35
Minimum number of species	1	3	3	1	3	2	

* from Valley Margin A. All others are from Valley Floor A.

TABLE 36-4
Unit II/IIIa Feature Eggshell Thicknesses (N=122)

	Feature			
	181	233	224	Totals
Volume of sediment (liters)	23.4	5.0	3.8	
Thickness (mm):				
0.12		1		1
0.13	3	2		5
0.14	1			1
0.15	5			5
0.16	10			10
0.17	5	2		7
0.18	11	3		14
0.19	9	1		10
0.20	1		1	2
0.21	3			3
0.22	2	1		3
0.23				0
0.24	2			2
0.25	13	1		14
0.26	8			8
0.27	8			8
0.28	9	1		10
0.29	5	2		7
0.30	3	1		4
0.31	3	1		4
0.32	1			1
0.33	2			2
0.34				0
0.35	1			1
Totals:	105	16	1	122
Minimum number of species	5	4	1	

is in part due to the larger amount of matrix that was screened and sorted from this context (see Chapter 26). Nevertheless, it is clear that Feature 181 had a high concentration of eggshell fragments with many different thicknesses and from at least five species but potentially from many more. The distribution of thickness values in this feature suggests that the greater the count of eggshells that are retrieved, the greater the number of species represented. This is contrary to the common assumption that eggshell fragments in archeological contexts are mostly from the same egg. The Feature 233 sample has far fewer eggshell fragments, but the thickness values, which have almost as broad a range as do those from Feature 181, indicate that at least four species are represented in this feature. The Feature 224 sample contained only one eggshell and therefore at least one species.

In the Feature 181 sample, there are 105 eggshells from almost every thickness value from 0.13 to 0.35 mm, so that no species groups are well defined and separable from the rest. The smallest shells are spotted sandpiper-sized, and the largest is prairie falcon-sized. Certain thickness values have higher counts than others. Ten fragments are 0.16 mm in thickness, which is within the size range of the northern

flicker and American crow. Eleven shell fragments are 0.18 mm thick, in the range of the ringed kingfisher, bobwhite, Montezuma quail, American kestrel, and purple gallinule. Thirteen fragments are 0.25 mm thick, which is similar in size to the common black-hawk, common moorhen, and barn owl.

The Feature 233 sample had far fewer eggshells than Feature 181, but the 16 fragments recovered have a similar broad range of sizes, from 0.12 to 0.31 mm in thickness. Given the similarity, some of the apparently well-defined clusters in the Feature 233 distribution may not have been as clear-cut if more eggshells had been retrieved. The smallest shells in the feature are the size of the green kingfisher, grackles, and smaller woodpeckers. A second cluster is in the range of the terns, quails and bobwhites, and roadrunner, among others. The rest are broadly distributed in a size range that includes the night-heron on the small end and the mallard on the large end.

The Feature 224 sample contained a single shell fragment of the size of the common raven or screech owl. In general, the Unit II/IIIa features have a broad distribution of eggshell sizes, which probably represent numerous species. More were recovered from this unit than from any other, primarily because of the wealth of remains in Feature 181 (and perhaps the relatively large volume of sediment processed from this feature). The number and size distribution of eggshells from this feature alone suggest that they are not accidental intrusions but are more likely to be cultural debris, regardless of how they came to be in the feature.

Unit II

A much smaller number of shell fragments were retrieved from the Unit II samples (Table 36-5), possibly because all of these sediment samples had relatively small volumes. Only five eggshell fragments make up the recovery from three features (157, 184, and 185). Though the counts are low, the two shells from Feature 157 are clearly from two different species (see Table 36-5).

The Feature 157 sample has a shell fragment from a small species in the range of the killdeer, and one from a medium-sized species in the range of the black-crowned night-heron. The Feature 184 sample has two shells in the merlin- to coot-size group, and the Feature 185 sample has a single shell of merlin size. All three samples have shells in the 0.23-0.27-mm range and are therefore quite similar, although this could be a function of the small sample sizes.

Unit Id/II

The Unit Id/II transition is represented by samples from Features 236 and 246, which together contained four eggshells (Table 36-6). Three of these eggshells are from Feature 236 and from three different species, as shown by their widely separated thickness values. The variety of species

TABLE 36-5
Unit II Feature Eggshell Thicknesses (N=5)

	Feature			
	157	184	185	Totals
Volume of sediment sample (liters)	0.9	1.0	1.3	
Thickness (mm):				
0.12				
0.13				
0.14				
0.15	1			1
0.16				
0.17				
0.18				
0.19				
0.20				
0.21				
0.22				
0.23	1			1
0.24		1	1	2
0.25				
0.26				
0.27		1		1
0.28				
0.29				
0.30				
0.31				
0.32				
0.33				
0.34				
0.35				
Totals:	2	2	1	5
Minimum number of species	2	1	1	

represented by even very low counts of specimens is both striking and significant.

The Feature 236 sample has one eggshell in the size group of the northern flicker and American crow. The shell with a thickness of 0.21 mm has no exact match on the comparative species list but is close to the range for the screech owl and others. The third species is represented by one shell in the size range of the cinnamon teal, northern harrier, and American coot. The Feature 246 sample has one eggshell similar in size—0.26 mm—to the latter species group, or the size of the green-winged teal and others. The distribution of these few eggshells is similar to that of the Unit II features in spite of the small sample size.

Unit I

Sediment samples collected from four features in Unit I yielded six eggshell fragments (Table 36-7). The Feature 169 and 255 samples have a minimum of one species, while the Feature 257 sample has at least two species. One eggshell was recovered from Burial 2 pit fill.

The eggshell from the burial pit is in the size group of the short-eared owl, upland sandpiper, common raven,

TABLE 36-6
Unit Id/II Feature Eggshell Thicknesses (N=4)

	Feature		Totals
	236	246	
Volume of sediment sample (liters)	27.0	19.5	
Thickness (mm):			
0.12			
0.13			
0.14			
0.15			
0.16	1		1
0.17			
0.18			
0.19			
0.20			
0.21	1		1
0.22			
0.23			
0.24			
0.25			
0.26		1	1
0.27	1		1
0.28			
0.29			
0.30			
0.31			
0.32			
0.33			
0.34			
0.35			
Totals:	3	1	4
Minimum number of species	3	1	

screech owl, and black skimmer. The rest of the features have shells within the 0.18-0.28-mm range but are variously distributed within that range. The shell from Feature 169 is in the size range of the green-winged teal and great egret, while the shell from Feature 255 is slightly larger, closer to a prairie chicken in size. Feature 257 has three shells within a fairly narrow range but belonging to at least two species in the quail to night-heron group.

Unlike the other units, the features in Unit I did not have a strong resemblance to each other in their size distributions, although they did belong to a fairly narrow subset of values. The recovery of only one eggshell from ca. 94 liters of Burial 2 fill suggests this shell is intrusive to the burial rather than a fragment of an intentional offering. Items as small as this shell can work their way down through the soil from above, but there are alternative explanations. The eggshell was most likely in or on the soil that was used for the burial fill, and this soil contained occupation debris.

DISCUSSION

Whether the eggshells found in these features are remnants of those feature activities or are debris present in the

TABLE 36-7
Unit I Feature Eggshell Thicknesses (N=7)

	Stratigraphic Unit				Totals
	Isi/Icl/Isi-c	Isi/Isi-c	Isi-c	Isi-c	
	Feature	Feature	Feature	Feature	
	Burial 2	169	255	257	
Volume of sediment sample (liters)	101.0	61.4	8.8	12.4	
Thickness (mm):					
0.12					
0.13					
0.14					
0.15					
0.16					
0.17					
0.18				1	1
0.19					
0.20	1				1
0.21				1	1
0.22					
0.23				1	1
0.24					
0.25		1			1
0.26					
0.27					
0.28			1		1
0.29					
0.30					
0.31					
0.32					
0.33					
0.34					
0.35					
Totals:	1	1	1	3	6
Minimum number of species	1	1	1	2	

soil that became the feature fill, the sheer number of species present vertically throughout the site is strong evidence that they are not accidental intrusions. The fact that even small samples contained multiple species and that the larger the counts the more species are represented is further evidence that the eggshells primarily represent cultural refuse.

The importance of eggs in prehistoric diets should not be underrated. Eggs supply protein, vitamins, minerals, certain fatty acids, and amino acids (Burley and Vadehra 1989:352). Egg protein has the highest true digestibility of major foods, and the nutritive value of eggs is high because the proteins contain essential amino acids necessary for human nutritive needs (Burley and Vadehra 1989:353). Likewise, the yolk lipids contain essential nutrients, such as linoleic acid (Burley and Vadehra 1989:353). The list of vitamins in eggs is lengthy—Vitamins A, D, E, B12, biotin, choline, folic acid, inositol, niacin, panthothenic acid, pyroxidine, riboflavin and thiamin—as is that of minerals—calcium, chlorine, copper, iodine, iron, magnesium, manganese, phosphorus, potassium, sodium, sulfur, and zinc (Burley and Vadehra 1989:Table A1).

Eggs that are eaten raw have different nutritive values than cooked eggs, and the manner of cooking also affects the dietary value (Burley and Vadehra 1989:351, 354-357). During cooking, proteins undergo denaturation, which facilitates proteolysis and therefore makes more nutrients available. Cooked eggs, especially baked eggs, followed by steamed, then boiled eggs, have a higher availability of iron in the egg yolk, because the heating process prevents the binding of iron to phosphopeptides and therefore makes the iron available to the body. Similarly, heating stops certain proteins from binding to biotin and vitamin B12. On the other hand, raw eggs do not lose amino acids from oxidation, unlike overcooked eggs. Raw eggs maintain all of the nutritive value of the lipids, which can be decreased by heating. Reasons for not eating eggs include their high cholesterol value, which is a modern complaint, and the presence of proteins that are allergens in some people sensitized by eating eggs early in infancy (Burley and Vadehra 1989:357-362). Allergies are not documented in the ethnographic/ethnohistoric record as far as I know, and may also be a modern phenomenon.

The consumption of bird eggs is documented in the ethnographic/ethnohistoric record. Among the Beothuks in Newfoundland, bird eggs certainly formed part of the diet, as reported by Howley (1915, cited in Reynolds 1978:102). The eggs were gathered from up to 40 miles away from camp and then were hard-boiled to preserve them for later consumption. The same account explains that the eggs were boiled in a birch rind vessel, and then dried in birch rind.

The Chiricahua Apache are reported to have eaten the eggs of several species. Opler's (1941:366) account is as follows:

We always ate eggs. Some women won't eat eggs for fear of getting children, however. But this is according to the shamans's direction. We eat the eggs of the quail and duck. ...Some people eat the eggs of the quail, the duck, and other birds. A good many quail eggs are found together. The eggs are boiled, or a fire is made, the ashes are pushed aside, the eggs are put in there, and the ashes are put back over them.

In this account, the size of the egg is not as important as the availability. Quail eggs are not too small to eat even when larger duck eggs can be found. Quail eggs are desirable because many can be collected from one location. Since most wild bird eggs are fertilized, we must assume that the ethnographic references refer to fertilized egg consumption. In the stages directly following laying, the only difference between the fertilized and unfertilized eggs are "a few nanograms of nucleic acid and protein" (Burley and Vadehra 1989:363). And since calcium absorption does not begin until the tenth day of incubation, up until then the fetus is not well developed. At the same time, it may be that bird fetuses were considered good to eat.

Of the two cooking methods mentioned by Opler, boiling does not burn the eggshell, and therefore unburned shell should not necessarily be discounted as noncultural. The other method, cooking in ashes, could burn the shell if the ashes were hot enough. Even if the cooking method does not burn the shells, after consumption of the egg, the shells can be tossed in a fire and burned as refuse. Thus, it would not be unusual to find both burned and unburned eggshell fragments among the cultural debris of a site.

Burned and unburned eggshells have been reported from a few prehistoric sites in Texas. The Lewisville site, a Clovis campsite in North-Central Texas on the east fork of the Trinity River, contained bird eggshells in 2 of 23 hearths (Crook and Harris 1957:30-32; Story et al. 1990:183). In Hearth 4, burned eggshell fragments, identified as a large bird, possibly turkey or goose, were found in association with charcoal, burned mouse skeletal elements, the burned leg bone of a large mammal, and charred hackberry seeds. More fragments of turkey or goose eggshells, some burned, some unburned, were found in Hearth 6. The association of the

eggshells with what appears to be cultural food debris gives credence to the assumption that eggshells could be the remains of a food resource.

A few eggshell fragments were also reported from Archaic deposits in Horn Shelter No. 2, a stratified rockshelter located on the Brazos River in Bosque County, Texas (Redder 1985:61). At Antelope House in Canyon de Chelly National Monument in Arizona, a concentration of 11 eggshell fragments was found in Room 21 (McKusick 1986:142, 156). The eggshells were found in all but one of the occupation periods, from Pueblo I (beginning in about A.D. 825-850) to Navajo times, although they are represented by only 1 or 2 fragments in each period (McKusick 1986:Table 55). One eggshell fragment was eroded and without pigment, and therefore was not identifiable (McKusick 1986:143). Ten of the remaining 11 were still pigmented and were identified as turkey eggshells on the basis of the coloring. All of the other turkey bones and feathers were identified as *Meleagris gallopavo* (Indian domestic turkey), not wild turkey, and presumably the eggs were also from domesticated birds. McKusick (1986:148) reports that the thickness of the shells ranged from 0.275 to 0.425 mm, with a mean of 0.375 mm. She does not specify the method of measurement, and I suspect that an unreliable technique may account for the unusually large range. McKusick takes the mean thickness to infer that the turkeys were healthy, with an adequate access to calcium. However, since calcium levels may not be the cause of thicker eggshells, her conclusion may not be valid.

Although the excavators could not be certain whether the debris in Room 21 was from human refuse or from turkeys inhabiting the room after its abandonment, the presence of numerous cultural artifacts made from turkey bones and feathers suggests that the presence of turkeys was contemporaneous with the human habitation. McKusick (1986:151) further speculates that the juvenile bones and eggshells signify that the turkeys were being raised by the human occupants.

Eggs can be used for nonfood purposes as well (Burley and Vadehra 1989:366). In processing leather, the egg albumen is used for preparing the surface of the hide to help dyes stick, to aid in waterproofing, and to improve the feel of the leather. The whole egg can be used in fat liquoring, in which the oils penetrate the dried hides to make them stronger and more elastic. Eggs are also good for preparing paints, although the archeological evidence for it would not be preserved.

Given the value of eggs as a nutritional resource and the ethnographic examples of egg collecting and consumption, the archeological eggshells from the Wilson-Leonard features can reasonably be considered to be part of the cultural debris of the site. The wide variety of size groups represented throughout Units I, II, and III adds credence to this view.

The next step is to be able to speciate the eggshells in order to take a closer look at the selection of eggs of certain

bird species. Then we need to be able to determine at what stage of incubation the eggs were broken open. At the fifteenth day of incubation, the inner membranes separate from the shell and create a hole at the center of each mammillary knob (Tyler 1969:120). I have not yet determined how to distinguish between center holes due to incubation and center holes due to postdepositional abrasion and breakage of archeological eggshells, but if this distinction is possible, then we can establish at what point in the development of the egg it was collected and consumed. Mammillae without center holes would have been collected soon after laying when the fetus is barely developed. Another technique is suggested by the fact that the protein in the mammillary cores is a vehicle for decalcifying agents during incubation. "Decalcification starts with the mammillary layer, and removal

of calcium from it can be used to determine if an old shell is from an egg that had been incubated" (Burley and Vadehra 1989:43). A technique that calculates the loss of calcium from archeological eggshell would be valuable.

Eggshells have great potential as a new analytical tool for interpreting human subsistence behaviors, and combined with other faunal and macrobotanical remains, can fill in gaps in our knowledge of available resources. When speciating eggshells becomes viable, such an analysis can aid in paleoenvironmental reconstructions by contributing supplemental data on avian fauna. Further research in this field is certainly warranted, and more archeological eggshells need to be retrieved and analyzed. As water screening through fine mesh becomes more standard in archeological procedures, the potential for more data increases.

THE MOLLUSCAN PALEOASSEMBLAGE

by Leslie C. Shaw, Raymond W. Neck, James L. Theler, and Michael B. Collins

INTRODUCTION

by Michael B. Collins

Gastropod and mussel remains were found in large numbers at Wilson-Leonard and their analysis offers both environmental and cultural information of value in the interpretation of the site. This chapter considers mollusk shells lacking apparent cultural modification; the culturally modified shells are reported along with bone artifacts in Chapter 21.

Detailed studies of molluscan assemblages from archeological sites were comparatively uncommon at the time of the initial Wilson-Leonard excavations, and an important part of that effort was a pioneering study of a large sample of snail tests by Raymond W. Neck. Neck produced a manuscript report of that study (Neck 1988) and was among the consultants who conducted specialized studies in conjunction with the second excavations. He again produced a draft report (Neck 1993) but was unable to continue on the project to finalize his efforts. The first part of this chapter is an integration of Neck's two studies by Leslie C. Shaw.

This is followed with a study by James L. Theler of gastropod remains recovered in feature contexts during both seasons of excavation. Although excavated as matrix samples at different times, the snails were all extracted by Theler using identical laboratory techniques. Theler's contribution is directed primarily toward the environmental implications of these samples. An intriguing question in this set of studies is why Theler found *Phreatodrobia nugax nugax* in matrix samples from features while no examples of this taxon were found in Neck's samples. One explanation could be that among the activities associated with the features was the introduction of water, vegetation, or larger animals from spring-fed pools that inadvertently introduced these very small snails as well. Alternatively, there may be a difference in the procedures employed by the two investigators. Similarly, the two species *Hawaiiia minuscula* identified by Theler and *Helicodiscus singleyanus* identified by Neck are so simi-

lar in morphology that the reported frequencies may represent analyst differences in identification. Possible cultural significance of some of the occurrences of snails in features is discussed further in Chapter 26.

Mussel shell from both seasons of excavation is discussed in the next section by Shaw who identified those from the second season and incorporated Neck's identifications from the earlier season. These were collected using various field and laboratory techniques.

The final section, by Shaw, integrates the findings of all three of these separate studies. Based on the uncertainties regarding any cultural processes that might account for the presence of snails in the site, Shaw primarily discusses how natural processes probably account for the presence as well as the condition and relative abundance of mollusks in the various stratigraphic units of the site. As she makes clear, more needs to be known about the taphonomy of modern gastropods before archeology can enjoy their full interpretive value. In contrast, most of the mussel shell found at the site is more likely the result of cultural introductions. When the environmentally sensitive mollusks are considered for their environmental implications, their distributions in the site agree with other paleoenvironmental evidence in broadly indicating a sequence from an early mesic, through a long xeric, to a final more mesic interval.

Much has changed in the study of gastropods from archeological contexts since Neck initiated his first study of snails from the Wilson-Leonard excavation. The changes and improvements that have been made affect both field collecting and laboratory processing techniques, and as such, different points along that historical continuum are represented by the various phases of mollusk studies reported here. This adversely affects the comparability of results, a problem that can only be acknowledged and then minimized by fully reporting the sampling and processing procedures for each excavation. Also, the species identifications are provided in full so that other investigators can

fully consider these inherent biases when comparing the Wilson-Leonard data to those from other sites.

ANALYSIS OF A GASTROPODA ASSEMBLAGE

by Raymond W. Neck and Leslie C. Shaw

Mollusk remains found in archeological sites have come to be recognized as important indicators of past ecological and cultural conditions. Shells often preserve better than most types of other organic remains and can offer some of the best evidence for the reconstruction of paleoenvironments. The habitat requirements of certain terrestrial and freshwater gastropods have been used to identify subtle changes in such conditions as forest cover, water temperature, and amount of habitat disturbance.

Studies of mollusks within archeological contexts have been frustrated in part by issues of sampling and methods of recovery. Improvements in the collection of column samples of uniform size, flotation systems, and species quantification strategies have amplified the research potential of mollusk assemblages. What becomes most apparent when comparing assemblages between sites is that context, sampling strategies, and recovery methods greatly shape the resulting assemblages, and these need to be explicitly stated for comparisons to be made.

A second area inhibiting the potential for interpreting mollusk assemblages is the lagging study of the natural history, habitat tolerances, and ranges of species in a modern context. Few analyses of paleomolluscan assemblages from Central Texas have been published (see Neck 1981a, 1987a, 1992, 1994). As a result, the dynamics of molluscan faunas in the Pleistocene and Holocene in Central Texas are still essentially unknown. Even the vertebrate faunas of the Pleistocene and Holocene of Central Texas are relatively unknown when compared to other parts of Texas and the central United States (see Lundelius 1967). This lack of information is slowly being remedied, and the involvement of archeologists in the collection of these types of data is of particular importance.

Methodology and Contexts

An overview of the collection strategies, cultural contexts, and analytical procedures used for the study of mollusk remains from the Wilson-Leonard site is warranted because important differences exist between the methods used during the TxDOT and TARL excavations. This overview is presented here to aid in comparisons between the TxDOT and TARL subassemblages and between the identifications provided in this section and those contributed by Theler.

While mollusk remains were recognized early on as an important data set, the systematic recovery of shell during excavation seasons at the Wilson-Leonard site varied. Large subassemblages were retrieved during TxDOT field screening using 1/4-inch-mesh screens, but these samples include only the larger-sized species and/or better preserved indi-

viduals. Efforts to collect a more representative sample during the TxDOT excavations included the retrieval of shell from finer screening (1/16-inch mesh) of one square and the collection of sediment samples that could be processed in the laboratory from three other squares. The later TARL excavations used water screening of uniform-volume sediment samples to provide the most comprehensive recovery of gastropods. These samples, collected from columns in two squares, provide good control over temporal contexts and are most useful for identifying ecological changes through time.

The majority of the gastropod remains recovered during the TxDOT and TARL excavations were identified to species by Neck (1988, 1993), using his personal familiarity and reference collection along with standard identification guides (Burch 1962, 1982; Cheatum and Fullington 1971, 1973; Clarke 1981; Fullington 1978; Fullington and Pratt 1974). Shells were classified as adult and immature (0+0) except for shells of *Rabdotus mooreanus* from cultural features, which were identified as adult+adolescent+juvenile+hatchling. The samples from the combined excavations were collected from six excavation squares and from four features.

The recovery methods used and the matrix volume sizes varied for the different sample contexts, and this variation should be considered when comparing results. Gastropods were also collected less systematically from the screen in the field, and these were not used in this analysis because of the lack of control on sediment volume and the large screen size used. The gastropods from field screening are curated for future study.

The first series of gastropod samples collected during the TxDOT excavations was retrieved from sediment columns placed in the walls of three excavation squares. The column samples were collected from two adjacent squares (E20/S78 and E22/S78) located on the valley floor and from one square (E22/S88) located 8 m upslope on the valley margin. Sample collection procedures were incompletely documented in the TxDOT field notes but secondary evidence suggests that sediment samples were collected in 10-cm levels from excavation square walls. The series of gastropod samples recovered from Square E20/S78 represents a column concentrating on the time span of roughly 8700 to 2000 B.P. (stratigraphic Units IIIa - IIIc) with two samples from Unit Isi-c/Id, which covers the time span between roughly 10,000 and 9,500 years ago. The four samples from E22/S78 focus on the lower stratigraphic units (II - IIIa) of the valley floor and complement the data recovered from the adjacent square. The gastropod column from E22/S88 was collected from Burned Rock Midden 1 in the upper levels of this square. Five sediment samples were collected from the midden deposit in the square wall (Levels 3, 4, 5, 7, and 9), and a sixth sample was collected directly below the base of the midden (Level 12).

The second series of gastropod samples was collected from the "fine-screened unit" (E28/S78). This square had all

excavated sediment water screened through nested 1/4- and 1/16-inch-mesh screens. Although gastropod recovery methods were not well documented in the TxDOT field notes, gastropods were apparently picked from the screened matrix. Forty-three levels were evaluated providing a continuum covering the full human occupation of the site. The 1/16-inch screen would not recover many of the smaller species, so the assemblage from this square reflects the larger species and larger individuals within a species.

The limited documentation of the methods used to collect the TxDOT snail samples poses problems in identifying analytical biases. Likewise, the processing methods for the column samples from the TxDOT excavations are not clearly recorded (Neck 1988). At least some of the sediment samples were processed at the Dallas Museum of Science, with the resulting matrix samples picked by members of the Dallas Shell Club. The lack of documentation on recovery methods limits how much weight can be placed on the final analysis results. The documentation of the methods used to collect gastropods from the fine-screen unit is also less than complete. The high number counts for this square suggest the sample was retrieved from both the 1/4-inch and 1/16-inch screens, but it is not clear from the field notes if this sample represents the total 2-x-2-m square or is limited to a 1-m quadrant of this square.

During the TARL excavations, two 1-x-1-m squares (Squares 12 and 20) were selected for the collection of sediment samples for gastropod analysis. From Square 12, a total of 46 uniform 1.5-liter sediment samples was collected in a stratigraphic column. Square 20, located in the northeast area of the site, had 41 uniform 1.5-liter sediment samples collected during the excavation. These sediment samples were processed by Neck using water screening through a nested set of geological sieves (U.S. Standard Sieve Series) with a maximum screen mesh of 4.76 mm (sieve #4) and a minimum screen mesh of .425 mm (sieve #40). All complete gastropod shells were removed from the processed residue for identification.

Five cultural features excavated during the TARL project were also evaluated for gastropods (see also additional feature samples analyzed by Theler, this chapter). The recovery method for the features was the same as for the squares, with 1.5-liter sediment samples water screened through four nested geological sieves. Feature 231, a large, burned rock accumulation associated with the Early Archaic occupation in stratigraphic Unit IIIa, had five uniform 1.5-liter samples processed. Four of these samples were collected from Square 52 (Levels 24 and 25), and one was recovered from adjacent Square 38 (Level 23).

Feature 260, also in Square 52 but located below Feature 231, was also sampled for gastropod recovery. A single 1.5-liter sediment sample was processed from excavation Level 42B. This feature is a Late Paleoindian burned rock cluster found in stratigraphic Unit Isi-c (dating to roughly 10,000 B.P.)

Feature 245 was sampled by three 1.5-liter sediment samples. Feature 245 is a burned rock basin in Squares 28 and 52. This feature was located in the lower portion of Unit IIIa and is associated with an Early Archaic occupation. Burned Rock Midden 1 (sampled with TARL Square 100) was investigated by six sediment snail samples, each from different levels. The lower two levels are from the base or slightly below the burned rock midden. These samples complement the earlier series of gastropod samples collected from Burned Rock Midden 1 during the TxDOT excavations (see above).

Zoogeographical Setting

The Wilson-Leonard site is located in an area that contains one major and one minor transition between zoogeographical regions (Blair 1950). The major transition zone is associated with the Balcones Fault zone, which forms the boundary between an upland, bedrock-dominated area (Texas Hill Country and Edwards Plateau) and the soil-dominated Coastal Plain. This upland area is characterized by a number of limestone formations and contains a characteristic molluscan fauna that includes several species that do not range east or north of the Wilson-Leonard site (Cheatum and Fullington 1971, 1973; Fullington and Pratt 1974). The Coastal Plain contains a variety of geological substrates, but most of them are noncalcareous in nature. Molluscan species more typical of slow-moving streams and riparian woodlands occur on the Coastal Plain.

The minor transition in the area of the Wilson-Leonard site involves the subtle but biogeographically significant transition between the Texas Hill Country and the Lampasas Cut Plain. The biotic changeover across this transition is less dramatic than that along the Balcones Fault zone. However, a number of terrestrial gastropods are not found north of this transition zone. The location of this transition zone appears to be along the drainage divide between the Colorado and Brazos river systems. The line between Travis and Williamson counties is defined as that divide and is located only a few kilometers south of the Wilson-Leonard site.

Taxonomic Analysis of Subassemblages

Examination of the paleomolluscan assemblages from the Wilson-Leonard site revealed the presence of a diverse fauna containing many species of terrestrial and freshwater gastropods as well as a few fragments of freshwater unionids (see below). In total, 23 terrestrial gastropod taxa and 11 freshwater-aquatic gastropod taxa were identified. The TxDOT sediment column samples yielded primarily terrestrial species, with 17 terrestrial and 7 aquatic species represented, but the specimens by count comprise largely terrestrial individuals. The fine-screened unit from the TxDOT excavations included 21 terrestrial and 9 freshwater species, which suggests that biases such as the screen size

and matrix picking biases may have affected the column and fine screen units samples differently.

Except for the introduced *Rumina decollata*, all terrestrial gastropod species recovered from Wilson-Leonard are native to Texas (see Table 37-1 for habitat preferences). One of these native species, *Gastrocopta armifera*, is not known to live in the Central Texas area today. Several of the freshwater gastropods recovered do not live in the area of the Wilson-Leonard site today. *Pomatiopsis lapidaria* is typical of the southeastern United States but has not been reported from modern gastropod studies in Texas (although suitable habitat would appear to be present in easternmost Texas). *Elimia comalensis* is today restricted to a few streams below major springs; the only known living population of *E. comalensis* in the drainage of the Brazos River is in Salado Creek in Bell County. Two small lymnaeid snails (*Fossaria parva* and *Fossaria dalli*) are not known to be living in Central Texas waters. *F. dalli* is known to be living in northwestern Texas, but *F. parva* has yet to be reported living anywhere in Texas. A third species of aquatic gastropod that has not been recorded for modern Central Texas was identified in the TARL subassemblage. This is the small *Cincinnatia cincinnatiensis*, which has only been reported from Pleistocene contexts in eastern Texas.

A total of 52,375 gastropod shells from the TxDOT subassemblages was identified to taxon and the raw frequency data are presented in Tables 37-2 through 37-6. The sediment processing of the two columns and four features from the TARL excavations resulted in the recovery of a

total of 3,781 specimens with 23 species of gastropods (16 terrestrial and 7 aquatic) represented. Counts for gastropod shells from the TARL excavations are presented in Tables 37-7 through 37-10.

Annotated List

Terrestrial Gastropods

Oligyra orbiculata is the only terrestrial operculate gastropod in Texas. This species also has one of the widest environmental tolerances of any terrestrial gastropod in Texas. Populations have been found in open woodlands as well as grassland areas with some woody plants or rocks available to provide cover. *O. orbiculata* is found from northeastern Mexico through the eastern two-thirds of Texas into Oklahoma and the southeastern United States (Fullington and Pratt 1974).

Carychium mexicanum is found in very moist microhabitats, being most abundant in mesic floodplains and marsh margins. *C. mexicanum* ranges from Guatemala northward into the Gulf Coastal Plain and the southern Atlantic Coastal Plain as far north as South Carolina (Fullington and Pratt 1974).

Pupoides albilabris is very tolerant of drought conditions and is found in almost any habitat that contains some rock or downed wood to provide cover. *P. albilabris* ranges throughout eastern North America as far west as Arizona and the Dakotas, southward into Mexico and the Caribbean area (Metcalf 1984; Pilsbry 1948).

TABLE 37-1

Habitat Preferences of the Terrestrial Gastropods from TxDOT Unit E28/S78

Terrestrial Taxa	Habitat
<i>Oligyra orbiculata</i>	wide tolerance
<i>Pupoides albilabris</i>	drier tolerance
<i>Gastrocopta armifera</i>	woodland
<i>Gastrocopta contracta</i>	woodland
<i>Gastrocopta cristata</i>	semiarid grasslands
<i>Gastrocopta pellucida</i>	wide tolerance
<i>Gastrocopta procera</i>	wide tolerance
<i>Strobilops texasiana</i>	woodland
Succineidae	
<i>Anguispira strongylodes</i>	woodland
<i>Helicodiscus eigenmanni</i>	drier tolerance
<i>Helicodiscus parallelus</i>	woodland
<i>Helicodiscus singleyanus</i>	wide tolerance
<i>Glyphyalinia roemeri</i>	woodland
<i>Glyphyalinia umbilicata</i>	woodland
<i>Mesomphix friabilis</i>	woodland
<i>Zonitoides arboreus</i>	woodland
<i>Rumina decollata</i>	urban areas, open woodland
<i>Rabdotus mooreanus</i>	drier tolerance
<i>Polygyra mooreana</i>	drier tolerance
<i>Polygyra texasiana</i>	woodland
<i>Praticolella berlandieriana</i>	wide tolerance

TABLE 37-2

Terrestrial Gastropod Taxa Frequencies by Level, E28/S78 (Fine-screened unit 1/4-inch and 1/16-inch mesh)

	<i>Oligya orbiculata</i>	<i>Pupoides albilabris</i>	<i>Gastrocopia armifera</i>	<i>Gastrocopia contracta</i>	<i>Gastrocopia cristata</i>	<i>Gastrocopia pellicida</i>	<i>Gastrocopia procera</i>	<i>Sirobilops texasiana</i>	<i>Succineidae</i>	<i>Anguispira strongylodes</i>	<i>Helicodiscus eigenmanni</i>	<i>Helicodiscus parallelus</i>	<i>Helicodiscus singleyanus</i>	<i>Glyphyalinia roemeri</i>	<i>Glyphyalinia umbilicata</i>	<i>Mesomphix friabilis</i>	<i>Zonitoides arboreus</i>	<i>Rumina decollata</i>	<i>Rabdotus mooreanus</i>	<i>Polygyra mooreana</i>	<i>Polygyra texasiana</i>	<i>Praticolella berlandieriana</i>	Totals
Unit IIIc:																		1	67	56		8	903
Level 1	594	39		3	1		97	28					4		5			1	212	643		44	4,285
Level 2	3,350	4		3			4	12							8	5							
Level 4	1,745	7		8			12	18						2	9	3			140	278		24	2,246
Level 6	1,469	21		11											3				78	238		33	1,853
Units IIIc-IIIb:																	2		453	782		40	3,809
Level 7	2,518	5													9								
Level 8	1,827	14		1									1		8				105	553	1	21	2,531
Level 9	3,088	16		2					1			1	1	1	1				184	665	2	34	3,996
Level 10	2,369	71		3	3		1	1						16					408	1,137		15	4,024
Level 11	1,683	59		1		5	31	4	1				5	3					442	548		1	2,783
Units IIIb:																			203	535		1	2,695
Level 12	1,930	26											1						326	1,036	1		3,522
Level 13	2,144	9		1				1						3									
Unit IIIb-IIIa:																			196	152			964
Level 14	615													1					246	230			1,421
Level 15	941	3												1									
Unit IIIa:																			138	54			476
Level 16	283													1					321	97	3		917
Level 17	494	2																					
Unit II-IIIa:																			181	165			1,031
Level 18	683														2				102	233			1,186
Level 19	850									5	1		16	8					125	224	6		1,475
Level 20	1,086	3	1	1																			
Unit II:																			66	141	2		1,140
Level 21	920												5	6					44	140	2		898
Level 22	701	1	2	1										7					39	104			439
Level 23	290			1				1		2				2					59	60			475
Level 24	344		1	2					1				2	6									

Table 37-2, continued

	Totals	<i>Praticolella berlandieriana</i>	<i>Polygyra texasiana</i>	<i>Polygyra mooreana</i>	<i>Rabdoius mooreanus</i>	<i>Rumina decollata</i>	<i>Zonitoides arboreus</i>	<i>Mesomphix friabilis</i>	<i>Glyphyalinia umbilicata</i>	<i>Glyphyalinia roemeri</i>	<i>Helicodiscus singleyanus</i>	<i>Helicodiscus parallelus</i>	<i>Helicodiscus eigenmanni</i>	<i>Anguispira strongylodes</i>	<i>Succineidae</i>	<i>Strobilops texasiana</i>	<i>Gastrocopla procera</i>	<i>Gastrocopla pellucida</i>	<i>Gastrocopla cristata</i>	<i>Gastrocopla contracta</i>	<i>Gastrocopla armifera</i>	<i>Pupoides albilabris</i>	<i>Oligyra orbiculata</i>
Units II-Id:																							
Level 25	281			35	44				8		14				2					4			174
Level 26	368			59	47				13		15											3	231
Units Isi-c-Id:																							
Level 27	828			180	134				30	5	10			1	1	2				57	2		406
Level 28	905			191	113				113	5	88	1			1	7				93	2		291
Level 29	321		3	97	35				6	1	10			1	2					31			135
Unit Isi-c:																							
Level 30	105			51	10																		44
Level 31	12				7																2		3
Units Isi-c-Icl:																							
Level 32	16			1	4																3		8
Level 33	9				4																		5
Unit Icl:																							
Level 34	6				1																		5
Level 35	11			5	1																		5
Level 36	8				5																		3
Level 37	8				7																		1
Units Icl-Isi:																							
Level 38	10				9																		1
Level 39	14				11																		3
Level 40					5																		1
Level 41	7				4																		3
Level 42	8				7																		1
Level 43	6				2																		4
Unit Isi:																							
Level 44	7			1	5																		1
Level 45	6			2	2									1									1
No. of Samples:	254	10	8	32	43	1	1	2	24	5	13	2	1	5	5	11	5	1	2	17	3	20	43
No. of Individuals:	45,991	221	20	8,693	4,572	1	2	8	269	14	172	2	1	10	5	78	145	5	4	223	4	292	31,250

TABLE 37-3

Terrestrial Gastropod Taxa Frequencies by Level, TxDOT Square E20/S78 (mesh size unknown)

	<i>Oligya orbiculata</i>	<i>Carychium mexicanum</i>	<i>Pupoides albilabris</i>	<i>Gastrocopta contracta</i>	<i>Gastrocopta cristata</i>	<i>Gastrocopta pellucida</i>	<i>Gastrocopta procera</i>	<i>Helicodiscus eigemanni</i>	<i>Helicodiscus singleyanus</i>	<i>Glyphyalinia roemeri</i>	<i>Glyphyalinia umbilicata</i>	<i>Rabdotus mooreanus</i>	<i>Polygyra mooreana</i>	<i>Polygyra texasiana</i>	<i>Praticolella berlandieriana</i>	Totals
Unit IIIc:																
Level 4	210			5							3	21	49		4	292
Level 5	406			2		1		1				66	112		12	600
Level 6	302			3			2					24	97		21	449
Units IIIb/c:																
Level 7	305			4			3				2	43	125		22	504
Level 8	320		2	6			1					37	101		5	472
Units IIIb:																
Level 10	135		4	4			2		6			18	66			235
Level 11	174		8	12	3				12		3	36	73			
Unit IIIa/b-IIIa:																
Level 14	46		2			3			22			8	6			87
Units I/c-Id:																
Level 24	61	3							14		3	15	16			112
Level 28	10			4					14	1		5		5	1	
No. of Samples:	10	1	4	8	1	2	4	1	5	1	4	10	9	1	6	67
No. of Individuals:	1,969	3	16	40	3	4	8	1	68	1	11	273	645	5	65	3,112

TABLE 37-4

Terrestrial Gastropod Taxa Frequencies by Level, TxDOT Square E22/S88 (mesh size unknown)

	<i>Oligya orbiculata</i>	<i>Pupoides albilabris</i>	<i>Gastrocopta contracta</i>	<i>Gastrocopta pellucida</i>	<i>Gastrocopta procera</i>	<i>Strobilops texasiana</i>	<i>Helicodiscus singleyanus</i>	<i>Glyphyalinia umbilicata</i>	<i>Rabdotus mooreanus</i>	<i>Polygyra mooreana</i>	<i>Praticolella berlandieriana</i>	Totals
Burned Rock Midden 1:												
Unit IIIc:												
Level 3	150		1	5	2		3		34	99	1	295
Level 4	365	1	3	4	3		14		56	135	16	597
Level 5	400	6	13	8	14	2	12	4	45	184	9	697
Level 7	273	5		8	10		12	9	55	114	1	487
Unit Y/IIIc:												
Level 9	214						12	4	53	69		352
Unit X/Y/IIIb:												
Level 12	174		11	6			23	3	61	46	1	325
No. of Samples:	6	3	4	5	4	1	6	4	6	6	5	50
No. of Individuals:	1,576	12	28	31	29	2	76	20	304	647	28	2,753

TABLE 37-5

Terrestrial Gastropod Taxa Frequencies by Level, TxDOT Square E22/S78 (mesh size unknown)

	<i>Oligya orbiculata</i>	<i>Gastrocopta contracta</i>	<i>Gastrocopta procera</i>	<i>Strobilops texasiana</i>	<i>Anguispira strongylodes</i>	<i>Helicodiscus singleyanus</i>	<i>Glyphyalinia umbilicata</i>	<i>Rabdotus mooreanus</i>	<i>Polygyra mooreana</i>	Totals
Unit IIIa:										
Level 16	31		1			8		24	8	72
Units II:										
Level 20	72			1		5	1	24	8	111
Level 22	47	3				7	1	14	10	82
Unit Id/II:										
Level 23	48	4			1	5	8	33	20	119
No. of Samples:	4	2	1	1	1	4	3	4	4	24
No. of Individuals:	198	7	1	1	1	25	10	95	46	384

Gastrocopta armifera is usually found in wooded areas on calcareous soil with exposed rock or downed wood as well as accumulations of leaf litter to provide cover (Cheatum and Fullington 1973; Leonard 1943; Neck 1984a). The species has also been found in prairie areas (Baker 1939; La Rocque 1966). Habitat studies in Oklahoma have found *G. armifera* mainly in riparian woods along rivers and creeks and in shrub areas in floodplains (Metcalf 1984). *G. armifera* ranges over much of eastern North America from Alberta to Quebec and southward to Florida and New Mexico (Pilsbry 1948). However, contemporary Texas records are restricted to northern Texas, the Panhandle, and montane areas of western Texas (Cheatum and Fullington 1973; Neck 1984a).

Gastrocopta contracta is typically found in moderately mesic woodlands or savannas with sufficient downed wood or rocks for cover. This species requires more-mesic conditions than the following species of *Gastrocopta*. *G. contracta* ranges through eastern North America from Ontario and Maine to Manitoba, south to Florida and eastern Mexico (Pilsbry 1948).

Gastrocopta cristata is most commonly found in deep woodlands or in woodlands along pools or streams (Allen and Cheatum 1961).

Gastrocopta procera is found in a variety of mesic and xeric microhabitats in woodlands, savannas, and grasslands; this species generally requires more-mesic conditions than *Gastrocopta pellucida* and *Pupoides albilabris*, but not as much moisture as *Gastrocopta contracta*. *G. procera* ranges through most of the southern United States from Maryland to Iowa and Arizona (Hubricht 1985).

Gastrocopta pellucida survives in a variety of habitats, even those that are moderately xeric (Metcalf 1984). Habitats occupied include open woodlands, riparian communities, and prairies. *G. pellucida* ranges over much of North America from New Jersey to Colorado, southward to

Florida, Baja California, and southern Mexico (Pilsbry 1948).

Strobilops texasiana is generally found in closed to open woodlands or savannas with large amounts of rock or downed wood to conserve moisture. *S. texasiana* occurs in the south central United States from Central Texas and Oklahoma eastward to Arkansas and Louisiana (Fullington and Pratt 1974).

The family **Succineidae** includes three genera and several species of land snails, many but not all of which live near water or in marshy situations. Since identification is usually made from soft parts, in most cases archeological examples of succineid snails cannot be identified below the family level, and it is consequently difficult to be specific about habitat preference. *Catinella* (below) is an example of a succineid snail.

Catinella avara is the currently used name that has been applied to a series of populations that are found in wetland margin habitats or periodically moist slopes over much of the eastern United States (Hubricht 1985:98).

Anguispira strongylodes is found in mesic woodlands, normally associated with flood plains of modern streams. *A. strongylodes* ranges from the Balcones Escarpment zone eastward through eastern Texas to Florida, North Carolina, and northward into Missouri and Illinois (Hubricht 1985).

Helicodiscus eigenmanni is found in xeric grasslands and savannas with wood or rock as cover. *H. eigenmanni* ranges from Central Texas westward to Arizona (Hubricht 1985).

Helicodiscus parallelus is found in mesic flood plain woodlands under logs or deep leaf litter, although it is reasonably tolerant of diverse habitats (Metcalf 1984). *H. parallelus* ranges from the Eastern Caprock Escarpment and the Balcones Escarpment Zone eastward to Alabama and northward to Maine and South Dakota (Neck 1984a; Pilsbry 1948).

TABLE 37-6
Freshwater Gastropod Taxa Frequencies by Square and Level

	<i>Elimia condensis</i>	<i>Pomatopsis lapidaria</i>	<i>Biomphalaria havansensis</i>	<i>Gyraulus parvus</i>	<i>Helisoma anceps</i>	<i>Planorbella tennis</i>	<i>Fossaria bulimoides</i>	<i>Fossaria parva</i>	<i>Fossaria dalli</i>	<i>Physella virgata</i>	Totals
TxDOT Square E20/S78 (mesh size unknown):											
Unit Id-Isi-c:											
Level 28						2					2
No. of Samples:						1					1
No. of Individuals:						2					2
TxDOT Square E22/S78 (mesh size unknown):											
Unit IIIa:											
Level 16							1				1
Unit II:											
Level 20				1		1				1	3
Unit Id/II:											
Level 23	1					1					2
No. of Samples:	1			1		2	1			1	6
No. of Individuals:	1			1		2	1			1	6
TxDOT Square E28/S78 (1/4- and 1/16-inch screened):											
Unit IIIc:											
Level 1									1		1
Level 2					4	2					6
Level 4											0
Level 6				4		1					5
Units IIIc-IIIb:											
Level 7				2							2
Level 8					1					2	3
Level 9											0
Level 10								1		1	2
Level 11			1			1				3	5
Unit IIIb:											
Level 12											0
Level 13						1	1			1	3
Units IIIb-IIIa:											
Level 14						2					2
Level 15				1		1				1	3
Unit IIIa:											
Level 16						1					1
Level 17				1	2	5					8
Units IIIa-II:											
Level 18						2				2	4
Level 19						8	1				9
Level 20						5	1			2	9
Unit II:											
Level 21							2				2
Level 22		1				5	3				9
Level 23						1	1				2
Level 24		1				1					2
Units II-Id:											
Level 25				1		2				1	4
Level 26				1			8				9

Table 37-6, continued

	<i>Elimia comalensis</i>	<i>Pomatiopsis lapidaria</i>	<i>Biomphalaria havanensis</i>	<i>Gyrinus parvus</i>	<i>Helisoma anceps</i>	<i>Planorbella tenis</i>	<i>Fossaria bulimoides</i>	<i>Fossaria parva</i>	<i>Fossaria dalli</i>	<i>Physella virgata</i>	Totals
Units Id-Isi-c:											
Level 27				1		5		6			12
Level 28		2				2		1		7	13
Level 29								2			2
No. of Samples:		3	1	7	3	17	7	4	8	4	54
No. of Individuals:		4	1	11	7	45	17	10	18	5	118
TxDOT Square E22/S88 (mesh size unknown):											
Burned Rock Midden 1:											
Level 4					2					1	3
Level 5						2					2
Level 7			1			1					2
No. of Samples:			1		1	2				1	5
No. of Individuals:			1		2	3				1	7

Helicodiscus singleyanus is found in xeric to mesic habitats in woodlands, savannas, and grasslands. *H. singleyanus* encompasses a complex of populations over much of the eastern United States (Pilsbry 1948).

Glyphyalinia roemeri is found in very mesic, usually hygric, flood plain habitats or in mesic caves. *G. roemeri* is found only in Central Texas (Hubricht 1985).

Glyphyalinia umbilicata is found in seasonally mesic woodlands and savannas with moisture-conserving rocks or downed wood. *G. umbilicata* ranges from the Carolinas and Florida westward to central Texas (Hubricht 1985).

Mesomphix friabilis is found in flood plain woodlands usually with leaf litter accumulations. *M. friabilis* ranges from the Balcones Fault Zone eastward through eastern Texas into Alabama, Ohio, and Missouri (Hubricht 1985).

Zonitoides arboreus is found under downed wood in savannas and woodlands. *Z. arboreus* is a wide-ranging complex of populations that occur from northern Canada southward to Costa Rica (Hibbard and Taylor 1960).

Rumina decollata is found in heavily disturbed urban habitats, marginally impacted areas peripheral to urban areas, and in flood plain woodlands downstream of urban populations; some downed wood or lumber and trash appear to be the only requirement for this species in Central Texas. *R. decollata* is native to land areas surrounding the Mediterranean Sea but has established populations in many portions of the southern United States (Fullington and Pratt 1974).

Rabdotus mooreanus is found in open woodlands and grassland habitats. *R. mooreanus* ranges throughout north-central and Central Texas (Fullington and Pratt 1974).

Polygyra texasiana is generally found in mesic flood plain woodlands under downed wood. *P. texasiana* ranges from Texas and Oklahoma northward to Arkansas and Ala-

bama (Cheatum and Fullington 1971). The modern range and habitat preferences for this species are not well known, but based on its presence at several archeological sites, it seems well suited to semi-arid, wooded grasslands (Murray 1987).

Polygyra mooreana is found in generally xeric woodlands with calcareous soils. *P. mooreana* ranges throughout east central, central, and southern Texas (Cheatum and Fullington 1971).

Praticolella berlandieriana is found in open, often disturbed habitats that support savannas or woodlands under undisturbed conditions. *P. berlandieriana* is generally found in central and south central Texas (Hubricht 1985).

Freshwater Gastropods

Pomatiopsis lapidaria is generally found in marsh habitats with grasses, sedges, and cattail along the margins. *P. lapidaria* ranges throughout much of the eastern United States but has not as yet been reported living in Texas (Fullington 1978).

Elimia comalensis is found in springfed streams with clear water and limestone substrate. *E. comalensis* is endemic to Texas, being found only in central Texas streams (Fullington 1978).

Cincinnatia cincinnatiensis is found in shallow, springfed streams with a firm substrate and slow current. Widespread in the eastern half of Texas during the Pleistocene, *C. cincinnatiensis* has subsequently been extirpated from Texas (unless the enigmatic "*Amnicola*" *peracuta* is conspecific).

Biomphalaria havanensis is found in slow-moving or still waters often of a temporary nature. *B. havanensis* ranges from Mexico northward throughout southern, central, north central, and the middle Coastal Plain of Texas (Fullington 1978).

TABLE 37-7
Gastropod Taxa Frequencies by Level, TARL Square 12

	Terrestrial														Freshwater										
	<i>Oligya orbiculata</i>	<i>Pupoides albibraris</i>	<i>Gastrocopia amifera</i>	<i>Gastrocopia contracta</i>	<i>Gastrocopia pellucida</i>	<i>Sirobilops texasianus</i>	<i>Catinella avara</i>	<i>Anguispira strongyloides</i>	<i>Helicodiscus parallelus</i>	<i>Helicodiscus singleyanus</i>	<i>Glyphyalinia roemerii</i>	<i>Glyphyalinia umbilicata</i>	<i>Rabdotus mooreanus</i>	<i>Polygyra texasiana</i>	<i>Polygyra mooreana</i>	<i>Praticolella berlandieriana</i>	<i>Elimia comalensis</i>	<i>Gyrulus parvus</i>	<i>Planorbella tenuis</i>	<i>Fossaria dalli</i>	<i>Fossaria bulimoides</i>	Unionid Fragment	Unknown Fragment	Total Species	Total Individuals
Fill/Unit IIIc:																									
Level 2/3	21+5												1+4		7+3									3	29+12
Unit IIIc:																									
Level 4	15+4			2		2+1						0+1	4+7		14+8	2								7	39+21
Level 5	40+5			2+1		1						2+1	7+6		12+2									6	64+15
Unit IIIb/c:																									
Level 6	66+5												6+2		15+4	0+1								4	87+12
Level 7	110+13	1		1									4+9		26+9	4+2				1		1		8	148+33
Unit IIIb:																									
Level 8	128+10												12+4		34+13	5+5								4	179+32
Level 9	118+12									1	1		10+13		53+8	1								6	184+34
Level 10	102+21											1	7+5		29+9	3+1								5	142+36
Unit IIIa/b:																									
Level 11	51+14	2		2	1		0+1	0+1		4		1+2	11+8		19+13									10	91+39
Level 12	57+12	1											24+2		26+5									4	108+19
Unit IIIa																									
Level 13	26+5											0+1	2+7		26+7									4	54+20
Level 14	30+8											0+1	6+2	1	4+3									5	41+14
Level 15	13+0	1								5+1		1	6+1		2+1		1							7	29+3
Level 16	15+4	1								1		1	2+4	1	6+1									7	27+9
Level 17	14+6			1						3		1	8+3	2+1	1									7	30+10
Level 18	20+3			2						2		0+1	12+3	1+2	1+2									7	38+11
Level 19	20+3									3			5+6	0+1	0+5									5	28+15
Unit II/IIIa:																									
Level 20	19+9									2			12+4	4+8					1			1		6	39+21
Level 21	18+5	0+1								5+1		1+1	8+5	4+6	1						1			8	38+19
Level 22	12+8									4			5+2	1+2	1+2									5	23+14
Unit II:																									
Level 23	11+3											0+1	1+2	3+3	3+2									5	18+11
Level 24	17+1									3			4+3	4	1			1						6	30+42

TABLE 37-8
Gastropod Taxa Frequencies by Level, TARL Square 20 (4.76 and 0.425 mm mesh)

	Terrestrial										Freshwater				Total Species	Total Individuals
	<i>Oligya orbiculata</i>	<i>Pupoides albilabris</i>	<i>Gastropoda contracta</i>	<i>Strophilops texianus</i>	<i>Helicodiscus parallelus</i>	<i>Helicodiscus singleyanus</i>	<i>Glyphyalinia roemerii</i>	<i>Glyphyalinia umbilicata</i>	<i>Rabdotus mooreanus</i>	<i>Polygyra texasiana</i>	<i>Polygyra mooreana</i>	<i>Praticolella berlandieriana</i>	<i>Cincinnatia cincinnatiensis</i>	<i>Planorbella tenuis</i>	<i>Physella virgata</i>	
Fill/Unit IIIc:																
Level 6	23+2								2+3	2	2+3					4 29+8
Unit IIIc:																
Level 7	15+5				1			1	2+2	0+2	0+2					6 19+11
Unit IIIb/c:																
Level 8	44+2		1	2				0+1	5+10		12+9					6 64+22
Level 9	51+8	1	2				1		11+4		16+11	1				7 83+23
Unit IIIb:																
Level 10	36+5		1				0+1	1	4+3	0+2	10+4	2				8 54+15
Level 11	48+7							1	3+8		18+2	3+1				5 73+18
Level 12	52+9	1				1			1+8	1+8	22+1	2				7 80+28
Level 13	39+13							1	7	3+1	16+2	1+1				6 67+17
Level 14	31+2								19+3	0+3	5+1	0+1				5 55+10
Unit IIIa/b:																
Level 15	49+2		1						7+2	2	14+6					5 73+10
Level 16	11+3							1	1+6	0+4	0+2					5 13+15
Unit IIIa:																
Level 17	5+0								4+3		1+1					3 10+4
Level 18	5+3						0+1		5	1+1						4 11+4
Level 24	4+4								3+4		1					3 8+8
Unit II/IIIa:																
Level 25	6+2								5	2+2	0+1					4 13+5
Level 26	7+3						0+1		4+2	0+2	1					5 12+8
Level 27	5+2								2		0+1					3 7+3
Level 28	10+4								3+1	0+1	1					4 14+6
Unit II:																
Level 29	16+5							1+1	6+2	1+1	1					5 25+9
Level 30	15+7								3+1	1+2				2		4 21+10
Level 31	8+4								2							2 10+4
Level 32	12								3+1	0+1	1					4 16+2
Level 33	10+3								3+2	4+1				1		4 18+6
Level 34	9+3							3+1	4	0+1						4 16+5
Level 35	13+1							1	3+1					2		4 19+2
Level 36	2+2								2		1					3 5+2
Level 37								1+1	2+3							2 3+4
Unit Isi-c/II:																
Level 38	3							1	3+3	1+1						4 8+4
Unit Isi-c:																
Level 39	3					2		0+2	4+7	2+5	2			1	1	8 15+14
Level 40	2+1		3			9+3		2+1	4+3	2	0+1		1			8 23+9
Level 41	0+1		2			2		1+3	f	2+1	2					7 10+5
Level 42	2+1		4			2		0+1	f	3+3	1				1	8 14+5
Level 43	2								f	f						3 4
Icl/Isi-c:																
Level 44									f							1 1
Level 45	f															1 1
Level 46									f							1 1
Unit Icl:																
Level 48									f							1 1
Level 49																
Level 50																
Level 51	1															1 1
Levels 52-73																
No. of Samples:	33	2	7	1	1	5	4	15	30	22	24	6	1	4	2	38
No. of Individuals:	540+104	2	14	2	1	16+3	1+3	15+11	133+82	28+42	127+47	9+3	1	6	2	897+295

TABLE 37-9

Gastropod Taxa Frequencies for Selected Features (from TARL excavation; 1.5 liter sample, 4.76 and 0.424 mm mesh)

	<i>Oligya orbiculata</i>	<i>Gastropocopia contracta</i>	<i>Helicodiscus singleyanus</i>	<i>Glyphyalinia umbilicata</i>	<i>Rabdotus mooreanus</i>	<i>Polygyra texasiana</i>	<i>Polygyra mooreana</i>	<i>Gyraulus parvus</i>	Total Species	Total Individuals
Unit IIIa/II:										
Feature 231, Lot 1648 (Square 52, Level 24)	9+5*		3+0	1+1	5+1+2+10**		1+1		5	19+20
Feature 231, Lot 1744 (Square 52, Level 25)	4+2		1+0		3+0+0+0		3+2		4	11+4
Feature 231, Lot 1354 (Square 38, Level 23)	12+4			0+1	1+1+6+5	3+4		1+0	5	17+21
Feature 245, Lot 1462 (Square 52, Level 24)	11+6		1+0		3+0+3+5		0+1		4	15+15
Feature 245, Lot 1488 (Square 28, Level 24)	5+0				2+0+1+2		0+1		3	7+4
Feature 245, Lot 1579 (Square 28, Level 25)	1+2		2+0		1+0+1+3		1+0		4	5+6
Unit Isi-c:										
Feature 260, Lot 2406 (Square 52, Level 42)		1+0			f		f		3	1+0
No. of Samples:	6	1	4	2	6	1	5	1	7	
No. of Individuals:	42+19	1+0	7+0	1+2	15+2+13+15	3+4	5+5	1+0		75+70

*Adult + immature

**Adult + adolescent + juvenile + hatchling

TABLE 37-10

Gastropod Taxa Frequencies in Burned Rock Midden 1 (TARL Square 100; 4.76 and 0.425 mm mesh)

	<i>Oligya orbiculata</i>	<i>Pupoides albibris</i>	<i>Gastropocopia contracta</i>	<i>Helicodiscus singleyanus</i>	<i>Glyphyalinia roemeri</i>	<i>Glyphyalinia umbilicata</i>	<i>Rabdotus mooreanus</i>	<i>Polygyra texasiana</i>	<i>Polygyra mooreana</i>	<i>Praticolella berlandieriana</i>	Total Species	Total Individuals
Unit IIIc:												
Lot 1308, Level 5	16+11*	1+0	1+0	1+0	1+2	1+0	2+2+5+3**		11+5		8	34+28
Lot 1353, Level 6	28+9		1+0	1+0			3+2+0+2		10+7		5	43+20
Lot 1384, Level 7	15+6				0+1		3+0+4+4		2+4	1+0	5	21+19
Lot 1422, Level 8	13+8				2+0		4+1+0+7	1+0	7+4		5	27+20
Lot 1501, Level 9	11+1						3+2+8+3	2+3	2+0		4	18+17
Lot 1563, Level 10	11+5	1+0		2+0	1+1		5+2+4+7	0+1	4+1		7	24+21
No. of Samples:	6	2	2	3	4	1	6	3	6	1	6	
No. of Individuals:	90+40	2+0	2+0	4+0	4+4	1+0	20+9+21+26	3+4	36+21	1+0		167+125

* adult + immature

** adult + adolescent + juvenile + hatchling

Gyraulus parvus is generally found in spring- or seep-fed streams or pools with some aquatic vegetation. *G. parvus* ranges throughout most of North America (Taylor 1960).

Helisoma anceps is most often found in clear, spring-fed waters on limestone bedrock or gravel substrates. *H. anceps* ranges over North America from Canada southward to Georgia, Texas, and northeastern Mexico (Clarke 1981).

Planorbella tenuis is found in slow-moving or quiet waters, occasionally in temporary waters. *P. tenuis* ranges over the southwestern United States and southward into Mexico (Fullington 1978).

Fossaria bulimoides is generally found in still-water areas, most frequently in temporary ponds. *F. bulimoides* ranges from Alabama to southern California and southward into Mexico (Baker 1911).

Fossaria parva generally occurs in marshes, mud flats, lake shores, and the terrestrial margins of these plants (Clarke 1981). *F. parva* is known from Connecticut to Alberta southward to Maryland, Oklahoma, and Arizona (Burch 1982).

Fossaria dalli is found in moist vegetation around or in shallow ponds and streams (Baker 1911). *F. dalli* ranges

from Ohio to Montana, southward to Texas and Arizona (Baker 1928; Fullington 1978).

Physella virgata is found in slow-moving margins of streams or in ponded areas. *P. virgata* ranges from southern California and Kansas, southward through Texas and into Mexico (Hibbard and Taylor 1966).

Discussion

Environmental Indicator Species

Although any species represented in a fossil assemblage can be used to reconstruct the environmental conditions for a particular strata, many species have such wide-ranging habitat requirements that no meaningful habitat reconstruction can be accomplished. For this reason, certain species with specific habitat limitations are preferentially used to reconstruct ecological conditions of the past. These indicator species for the Wilson-Leonard site include both terrestrial and freshwater gastropods as well as freshwater mussels.

Two terrestrial gastropods that are rare or no longer present in the vicinity of the Wilson-Leonard site provide significant clues to the paleoenvironments of this area. *Gastrocopta armifera* is usually found in wooded habitats with significant amounts of leaf litter and downed wood (Neck 1984a). *G. armifera* is found living no closer to the Wilson-Leonard site today than the Panhandle and north central Texas. Four examples of this species were recovered from excavation Square E28/S78 (the fine-screened unit) from stratigraphic Unit II (see Table 37-2), and four specimens of this species were found in TARL Square 12 in the lower stratigraphic Units Isi-c and Isi/Isi-c (see Table 37-7).

A second species that is particularly rare in the area of Wilson-Leonard is *Glyphyalinia roemeri*, which is found in spring mounds, caves, and other hygic epigean or hypogean habitats (Reddell 1965, 1970). *Glyphyalinia roemeri* is rare to absent in the drainage of Brushy Creek today. This species has been reported as rare from surface sites in central Texas (Neck 1994) but abundant in a sinkhole used as a human burial shaft (Bement 1994). In the Wilson-Leonard assemblage, *G. roemeri* was recovered from stratigraphic Unit IIIc down to Isi/Isi-c (see Tables 37-2, 37-7, 37-8), but it is slightly more frequent in the lower strata. This species may have been introduced in the Wilson-Leonard deposits during overbank flooding because of its spring or water-source habitats.

Carychium mexicanum is found in very mesic woodlands and marsh margins. In Bell County, Neck found *C. mexicanum* in rock-bottomed creeks with leaf litter and overhanging trees to provide shade. This latter habitat type does not appear likely to have occurred in the vicinity of the Wilson-Leonard site; thick exposures of a limestone block with deeply dissected creeks would be required. The only specimens of this species recovered were from TxDOT Square

E20/S78 from stratigraphic Unit Isi-c/Id (see Table 37-3) and TARL Features 236 (Unit Id/II) and 255 (Unit Isi-c).

Of the significant freshwater snails, the three species that are most useful for paleoenvironmental reconstruction indicate aquatic environments of somewhat different characteristics from that of modern Brushy Creek. *Elimia comalensis* indicates a spring-fed stream with water temperatures that remain cool even during the hottest summer weather. *E. comalensis* is very rare in the Wilson-Leonard assemblage with one specimen from TxDOT Square E22/S78 in stratigraphic Unit Id/II (see Table 37-6) and one specimen from TARL Square 12 in stratigraphic Unit IIIa (see Table 37-7). The occurrence of *Cincinnatia cincinnatiensis* and *Fossaria dalli* indicate the perennial occurrence of shallow, nonstagnant water.

Other environmental reconstructions can be made from the terrestrial gastropod species present in these assemblages. Two species (*Strobeliopsis texasiana* and *Praticolella berlandieriana*) are present only or are more abundant in the upper layers of these sediments. *S. texasiana* and *P. berlandieriana* are primarily found in stratigraphic Units IIIc and IIb although several specimens of *S. texasiana* were also recovered in Units II, Id, and Isi-c, and one specimen of *P. berlandieriana* was recovered in Unit Isi-c (see Tables 37-2 through 37-10). *S. texasiana* is an indicator of well-developed woodlands, but another floodplain woodland indicator, *Anguispira strongylodes*, is more abundant in the lower levels (but still lives in the area today). This species was found in stratigraphic Units IIIb/IIIa to Isi (see Tables 37-2, 37-5, 37-7). The differences in relative occurrences of these woodland species indicate that the woodlands at the site have become progressively more xeric through time.

The restriction of *Praticolella berlandieriana* to the upper layers had not been observed in the analysis of archeological assemblages from other sites in central Texas. *P. berlandieriana* today is rarely found in dense concentrations except in disturbed habitats and especially those that have artificial cover in the form of lumber or trash piles. Analysis of additional sites will be required to determine if *P. berlandieriana* is a late arrival (i.e., mid-Holocene) species in central Texas.

Rumina decollata is present only in the uppermost levels, because it is an introduced species that has been present in the Brushy Creek drainage only in historic times. *R. decollata* could contaminate buried archeological deposits (Neck 1981a), because this species is able to burrow into the soil. However, the occurrence of *R. decollata* in only the top level of the Wilson-Leonard site (Level 1 in Square E28/S78 [see Table 37-2]) and at other archeological sites (Neck, unpublished data) indicates that *R. decollata* is unlikely to contaminate buried archeological deposits.

Whereas the above discussions have indicated significant changes in the environment around the Wilson-Leonard site, another analysis indicates that some stability

has occurred during this period of change. One of the dominant species of terrestrial gastropods in these samples is *Polygyra mooreana*, which is common or at least present in nearly all levels. Less abundant and generally found more in the lower sediments is the related *Polygyra texasiana* (found most commonly in stratigraphic Units IIIa, IIIb, II, and Isi-c [see Tables 37-2, 37-3, 37-7, 37-8]). *Polygyra mooreana* is usually found in upland open woodlands on calcareous substrates, whereas *P. texasiana* is most often found in more-mesic woodlands especially those associated with creeks and rivers. The continued presence of *P. mooreana* even in the lower sediments (where *P. texasiana* is more abundant) indicates that the more developed riparian woodlands present during the early Holocene were restricted to a narrow gallery along the stream and did not extend laterally and upward in elevation into the surrounding uplands.

Habitat Variations Through Time

The distribution of gastropod shells from the two TARL unit columns (see Tables 37-7 and 37-8) indicates a change in habitat types in the area immediately surrounding the Wilson-Leonard site during the last 10,000 years. The lower-most portion of Square 12 (stratigraphic Unit Isi and below [Levels 49-68 in Table 37-7]) contains no molluscan shell material and is overlain by a series of samples (Unit Isi [Levels 40-48]) that contain very little shell material, much of which is fragmentary in nature. No environmental reconstruction is possible for these strata. The paucity of shell material in the lower deposits of the site may be due to either lack of shells in original deposits (which is probable given the comparatively higher rates of deposition) or diagenetic dissolution of shell material due to significant carbonate mobility (see also Chapter 29). The first levels with significant numbers of shells (Units Isi-c through Isi/Isi-c [Levels 32-39]) indicate the presence of a woodland community with significant downed wood material and relatively high soil moisture levels. Above these deposits (Units II/IIIa through Isi-c/II [Levels 20-31]) are gastropod samples that indicate a period during which an open woodland to savanna occupied the Wilson-Leonard site area. A return of a closed woodland is indicated in stratigraphic Units IIIa/b through IIIa (Levels 11-19). The uppermost samples in Square 12, coming from stratigraphic Units IIIc and IIIb (Levels 0-10), reflect a more open habitat (savanna to prairie) that includes a period of moderate to drastic disturbance of the natural molluscan fauna.

The samples from Square 20 (see Table 37-8) reveal a parallel pattern to Square 12 in degree of available information (amount of shell material present) and indicated degree of woody plant cover at this site. At the bottom of the Square 20 column, no shell is present in stratigraphic Units Icl through Igl (Levels 52-73) and very little shell, usually in fragmentary condition, is present in Units Icl to Icl/Isi-c (Levels 44-51). Above these strata are samples from Unit Isi-c (Levels 39-

43) that indicate a period when a diverse, closed woodland occupied the area. During the periods represented by stratigraphic Units IIIa/b through Isi-c/II (Levels 15-38), a period of open woodland is indicated. Alternatively, the shells present in these levels could be interpreted as a closed woodland that experienced scouring floods that removed much of the understory and downed wood that would normally accumulate through time and provide cover for terrestrial gastropods. This latter hypothesis is supported by the particular indication of environmental disturbance in Levels 26 and 27. Above this in stratigraphic Units IIIc and IIIb (Levels 7-14), the molluscan remains indicate the existence of a closed woodland with a diverse community present. The species found in the top of Unit IIIc (Level 6) indicate an open woodland.

The similar pattern of variation of community types indicated in TARL Squares 12 and 20 are most likely due to the continuum nature of the environment between these two columns. Comparison of the radiocarbon dates available for these two columns provides the method of time analysis on environmental variation in the area surrounding the Wilson-Leonard site.

Gastropods from Burned Rock Midden 1

As previously noted, two series of gastropod samples were collected from Burned Rock Midden 1. The first series was collected from TxDOT Square E22S88 (see Tables 37-4 and 37-6) and the second series from TARL Square 100 (see Table 37-10). Although sample size and recovery methods differ considerably for the two series, both are dominated by three terrestrial taxa. Most abundant are *Oligyra orbiculata*, *Polygyra mooreana*, and *Rabdotus mooreanus* (see Tables 37-4 and 37-10). Both *O. orbiculata* and *P. mooreana* are typically found in rocky habitats and generally oviposit underneath or at the margins of rocks lying on soil. *R. mooreanus* oviposits in soil although rocks may be present.

All three of the above species were utilizing the burned rock midden for cover and oviposition. The occurrence of all sizes (age classes) of *Oligyra orbiculata* and *Polygyra mooreana* indicates that an abandoned burned rock midden is very suitable as a microhabitat for all life stages of these species. These middens are suitable for adults and for successful oviposition and hatching of *Rabdotus mooreanus*. However, the number of hatchling *R. mooreanus* (in relation to number of adults) in these samples indicates that these middens eventually become too dry to maintain living hatchlings of this species. *Praticolella berlandieriana* is represented by all size classes of shells including the "winter resting stage" shells with a partially reflected lip. Apparently, dry winter weather was particularly harsh for survival of *P. berlandieriana*.

Rabdotus mooreanus was much more common in the samples from the burned rock midden than in a paired column in an area without a cultural feature (although the area

was certainly utilized by the human inhabitants of the site). Thus, the "background level" of *R. mooreanus* was rather low, as it often is in natural habitats today. *R. mooreanus* and the other species in these midden deposits were attracted to remnant organic materials and were able to reproduce during periods when the deposits were not being utilized as a cooking area.

Cultural Utilization

Utilization of various species of *Rabdotus* as food has been discussed (Clark 1973, 1976; Hester and Hill 1975) and undoubtedly did occur (Deisler 1986; Neck 1981b, 1994) at times in southern and Central Texas. However, the pattern of occurrence of *Rabdotus mooreanus* at the Wilson-Leonard site indicates that this snail was not a prime food item of the inhabitants of this site. Some of the *R. mooreanus* shells in the burned rock midden (see Table 37-10) are rather large for this species, but young shells are common. In addition, shells of *R. mooreanus* from nonmidden samples (see Tables 37-7, 37-8, and 37-9) include shells that are just as large. Shells of *R. mooreanus* from the midden samples are encrusted with a soil/ash mixture, but they are not charred. The majority, and possibly all, of the *R. mooreanus* shells at the Wilson-Leonard site can be explained most easily as the reaction of living snails to the periodic occurrence of enhanced levels of organic material in these burned rock middens.

Taphonomy of Shells

Many of the shells recovered from the Wilson-Leonard site are broken or fragmented, although one assumes that all shells originally were complete. Some breakage is due to compaction of rocky strata and probably direct compaction by human feet. If the rocks in these burned rock middens were dug out prior to re-use of the area for plant processing, shells could easily have been broken.

Considering the large number of shells recovered at this site, remarkably few were burned. In samples with burned specimens, only a few out of many were burned. Burning, therefore, appears to have been an "accident." When the burned rock midden area was being used as a plant processing center, heat from above could char shells in lower levels. This effect would also explain the reduced number of shells in the lowermost levels.

Samples from various depths below the surface also allowed observation of another taphonomic process. Shells from upper levels were often empty; whatever soil material was present in the shell when it was in the soil had been removed during the sorting and washing process. Shells from a somewhat lower depth were filled with hard-packed soil particles. Farther down, shells contained calcareous deposits on their inner surfaces or packed soil cemented with carbonate material. The lowermost levels contained fossil remains with some shell material missing, revealing internal

molds (steinkerns). As these steinkerns were only partially indurated, further removal of shell material left a weak steinkern which then disintegrated or crumbled to smaller pieces which would not be recognizable as a fossil.

Summary

Paleomolluscan assemblages recovered from the Wilson-Leonard site contain a diverse fauna of terrestrial and freshwater gastropods. Significant changes in the microhabitats available for mollusks have occurred during the period represented by the investigated samples. Several terrestrial species indicate that soil moisture was much greater during the time of deposition of the lower samples. Freshwater gastropods indicate water resources that were more stable in time and larger in size. Substrates included exposed limestone as well as soft material (i.e., mud) and spring flow was perennial. Marshes and well-developed woodlands were present. However, the woodlands were only gallery forests along Brushy Creek and did not extend into the uplands (which were prairie or savannas). The most important changes revealed in the biotic community through time involve several cycles of variation in the density of individuals and the overall structure of the plant community itself (i.e., alternating open and closed habitats as reflected in the amount and density of woody vegetation). Occurrence of species-presence changes through time are likely to have been of much less significance than the variations in community structure and density.

Terrestrial gastropods are well represented in the burned rock midden samples. The most abundant species are typically associated with rocky soils and/or very open habitats. Whereas some archeological sites contain evidence to indicate that *Rabdotus mooreanus* was consumed by the aboriginal inhabitants, no such evidence is present at the Wilson-Leonard site.

Most shells were well preserved although a large number were broken. The few shells that were charred were probably heated when the burned rock midden was being utilized. Shells from upper levels are filled with the appropriate soil matrix. Middle samples contain shells with internal calcium carbonate incrustations. Lower samples contain shells with slightly indurated soil matrix. In the lowermost samples, shell material has been partially dissolved and weakly indurated steinkerns are being formed.

PALEOENVIRONMENTAL INTERPRETATION FROM GASTROPODS RECOVERED FROM FEATURES

by James L. Theler

Mollusk shells are abundant in many Quaternary deposits on the Plains, where they have been used by researchers since the early part of the twentieth century as proxy indicators of past environmental conditions. The use

of subfossil snail assemblages to characterize certain components of paleoenvironments involves the assumption that a species habitat preference has remained constant through time. Researchers working with subfossil gastropods generally agree that the factors exerting the greatest influence on the distribution and abundance of gastropod communities on the Plains during the Quaternary are temperature and moisture. Habitat and range distribution data from living gastropod species are used as a source of proxy information to interpret subfossils of the same species in the reconstruction of paleoenvironments. The available data on living snail taxa are sometimes limited, a factor that can dilute the potential interpretation in environmental reconstructions.

Methods

Gastropod shells were recovered from 12 sediment samples from separate excavated features in the Paleoindian and Archaic components at the Wilson-Leonard site. Sediment samples were dried, their volume measured and then water screened with material larger than .425 mm retained in a Tyler #40 geologic sieve. One of the samples (from Burned Rock Midden 1) measured 0.8 liter in volume while the remainder measured 1.0 liter. All complete and potentially identifiable shell fragments were isolated from water-screened residue under a low-power (10X) binocular microscope. The gastropod shells were sorted to taxon using standard reference guides. Following identification, shells were counted, catalogued by taxa, and stored in glass vials containing individual labels with pertinent taxonomy and provenience information.

Results

The 12 matrix samples from the Wilson-Leonard features with a total sediment volume of 11.8 liters, produced 3,311 individual gastropods or an average of approximately 281 individuals/liter (ind/l). The range was 36 ind/l in Feature 255 to 668 ind/l in Feature 206. A minimum of 20 terrestrial and 5 aquatic taxa are represented, with the terrestrial snails accounting for 99% (3,274 of 3,311) of all individuals.

Eleven of the samples are from burned rock clusters or burned rock basins dating from ca. 10,000 B.P. to 2000 B.P. (see Chapter 26). The twelfth sample, which is from Burned Rock Midden 1, complements the samples analyzed by Neck (see above) from lower levels of this feature. Burned Rock Midden 1 is assignable to the Middle and Late Archaic periods (dating from ca. 4000 to 1000 B.P.).

The majority of the snails from these features are terrestrial taxa, and although at least 20 taxa are represented, 6 taxa comprise 93% of the identifiable terrestrial snails. The 12 samples contained 2,676 identifiable terrestrial snails, with the 598 specifically unidentified shells of juveniles excluded from the current calculations. The most abundant species in the samples was *Hawaiiia minuscula* with 797 individuals

representing 29.8% of the total (Table 37-11). Next in abundance were *Oligyra orbiculata* with 742 (27.7%) individuals, *Rabdotus* with 528 (19.7%) individuals, *Polygyra mooreana* and juvenile *Polygyra* combined to equal 224 (8.4%) individuals, followed by *Gastrocopta pellucida* with 128 (4.8%) individuals, and *Gastrocopta contracta* with 66 individuals or 2.5% of the total identifiable specimens.

While these six taxa contribute most of the identifiable specimens at Wilson-Leonard, their sheer numbers offer little useful information as proxy indicators of past environmental conditions. It is useful here to evaluate trends in species through time by comparing the raw numbers obtained from the 11 constant volume (1-liter) samples (see Table 37-11).

An initial difference is apparent in the distribution of aquatic and terrestrial snails. It will be recalled that these features span the period ca. 10,000 to 2000 B.P. The 37 aquatic snail shells were recovered in low density from the earliest seven samples. These samples date from ca. 9990 B.P. (Feature 255) to ca. 8000 B.P. (Feature 224). The most interesting species in the aquatic assemblage is *Phreatodrobia nugax nugax*. *P. n. nugax* was found in four feature samples with a total of eight individuals represented. *P. n. nugax* is a minute (<2 mm), fragile, colorless hydrobiid species that inhabits the deep artesian waters of the Edwards (Balcones Fault Zone) Aquifer. This species is a member of the troglobitic biota that is sometimes expelled from the deep artesian zone with other Balcones ground water fauna. This species was first described from stream drift shells and has only recently been recovered living from artesian wells (Hershler and Longley 1986:127).

Other Wilson-Leonard aquatic gastropods include *Fossaria dalli* and juveniles of the genera *Physella*, *Gyraulus*, and *Planorbella*. These four taxa are typically found in shallow-water pools having aquatic vegetation rooted in a soft substrate, and it is open to interpretation how they came to be present in these features. The tiny aquatic snail shells recovered at the site are difficult to see with the unaided eye, and it may be assumed that they are present as individuals deposited with sediment/flotsam detritus on the site's surface (although it is possible that at least some relate to human activity).

Phreatodrobia nugax nugax probably entered the Brushy Creek drainage somewhere upstream through a spring "pipe." Springs may have produced marsh conditions that would have supported the other aquatic taxa. Some terrestrial species such as *Carychium mexicanum* and *Punctum vitreum* may owe their origins in the early levels of the site to overbank deposition.

A number of significant shifts occur in the land snail component of the assemblage when viewed from our 11 samples. In Texas, *Oligyra orbiculata* occurs "in localized colonies, usually on limestone, in deciduous or juniper woodlands. ...It is absent from grassland habitats, although it is often found in the woodland corridors along prairie streams" (Fullington and Pratt 1974:8). In the Wilson-Leonard

TABLE 37-11
Gastropods from Selected Features, MNI

[illegible]

samples, *O. orbiculata* is rare in early levels, with its earliest occurrence in Feature 236 (radiocarbon dated between 10,400 and 9650 B.P.), but it increases in frequency in Units II and III (see Table 37-11). The numbers of this species seem to have increased after 4000 B.P. This parallels a general increase in *Hawaiiia minuscula* through the sequence of sampled features. *H. minuscula* is a small species that can occur in some numbers in prairie or savanna settings, but it seems to achieve its greatest numbers in woodland habitats. *H. minuscula*, the most common species in the sampled feature sequence, is slightly more abundant in the post-8000 B.P. samples.

Rabdotus is the third most abundant taxon in the Wilson-Leonard samples. Neck (see above) refers all Wilson-Leonard *Rabdotus* to *Rabdotus mooreanus*, I am, however, insufficiently familiar with this taxon to separate subfossil adult and juveniles *R. mooreanus* from *R. dealtutes*. These species are considered by some to be "separate, but weakly defined species," having a sympatric range (Fullington and Pratt 1974:18). *Rabdotus* first appeared at 10,400-9650 B.P. but did not become abundant until ca. 8000 B.P. (Feature 224); like *Oligyra orbiculata*, *Rabdotus* became most common after 4000 B.P.

The small land snails, *Gastrocopta pellucida* and *Gastrocopta procera*, are rare members of the assemblage until after ca. 7470 B.P. (Feature 19/104), when both species show dramatic increases in abundance. These are species of xeric vegetation communities and along with *Pupoides albilabris*, mark local stands of prairie/savanna vegetation at the Wilson-Leonard site.

Discussion and Conclusion

Species such as *Carychium mexicanum*, *Gastrocopta contracta*, and *Punctum vitreum* are all taxa that prefer moist vegetation detritus. The small number of sporadically occurring individuals of these species in the earlier portion of the sequence is perhaps indicative of site alluviation as the principal mechanism of shell arrival rather than accumulations from in situ living populations. The small number of prairie/savanna species (*Gastrocopta pellucida* and *Gastrocopta procera*) may also be reasonably explained as arrivals with flotsam, washed into the Brushy Creek drainage from nearby prairie settings.

Oligyra orbiculata maintained what appears to be a stable to growing population at the Wilson-Leonard site and was perhaps associated with a riparian/gallery woodlands. This woodland habitat may have been a local response to artesian waters that were surfacing somewhere upstream of the site. The semi-arboreal habits of *O. orbiculata* perhaps aided in its persistence in this setting, as it appears to have achieved somewhat higher numbers than *Rabdotus* until the end of persistent overbank alluviation. Between 8000 and 4000 B.P., the Wilson-Leonard terrace became drier and shifted from a gallery woodland

to a setting with a mix of woodlands and well-established stands of prairie vegetation which supported species such as *Gastrocopta pellucida* and *Gastrocopta procera*. A signaling of moister conditions on the terrace is marked by the appearance of *Strobilops texasiana* and *Punctum vitreum* and the sharp increase in a number of moisture-dependent species.

AN ANALYSIS OF THE FRESHWATER MOLLUSK (UNIONID) PALEOASSEMBLAGE

by Leslie C. Shaw

The excavations at the Wilson-Leonard site recovered a sample of almost 1,300 freshwater bivalve shells or shell fragments. This paleoassemblage is heavily fragmented, but 12 distinct taxa have been identified. These are all freshwater pearly mussels (unionids) that are found in Texas today. The shell remains suggest the use of mollusks as a food resource during all periods of site use. A consideration of the environmental tolerances of the species utilized provides information on the characteristics of the aquatic paleoenvironments associated with these mussels.

The 12 taxa of unionid mussels identified in the Wilson-Leonard paleoassemblage are present in the rivers of Central Texas today, although Neck (personal communication to Michael Collins, 1992) reports their absence in modern Brushy Creek, the small drainage adjacent the site. Historic impacts, such as water impoundment, pollution, and increased siltation due to erosion, have adversely affected the mollusk populations in many of North America's rivers and creeks (Warren 1991) and may explain the loss of these species in Brushy Creek today.

The mussel shells from the Wilson-Leonard site were distributed widely although in low frequencies across the site and were recovered from all major strata corresponding to the multiple human occupations dating from the Paleoindian through Late Prehistoric periods. No distinct shell lenses such as have been reported for a number of other sites in Texas, especially those located on floodplains (Anthony 1994) were encountered at Wilson-Leonard.

The Wilson-Leonard mussel remains were collected either directly in situ during excavation, during dry or water screening in the field, or water flotation in the laboratory. The majority recovered during the TxDOT excavations were originally analyzed by Raymond Neck (1988), who provided species identifications. An additional small sample of TxDOT shell that had not been supplied to Neck and all the TARL sample were identified by the author. These samples have been combined for interpretations of environmental data and for discussions of the human use of unionid mollusks as a food resource.

The documentation of the data followed procedures established by Neck. All shell and shell fragments were inspected to determine genus and species whenever possible. Subform (subspecies) designations were used for only two

genera. There is currently little known about unionids in Texas waterways, which reduces the degree to which subforms reflecting regional and/or environmental variation can be identified. In addition, the fragmentary nature of the Wilson-Leonard sample makes it difficult to go beyond species identifications. Shell fragments that could not be identified to genus, were coded as to shell portion and general shell thickness.

Taxonomic Composition

The analysis of the TxDOT and TARL mussel shell samples resulted in the identification of 12 taxa from 4 subfamilies of Unionidae (Table 37-12). In total, 183 shell or shell fragments were identified to the species level, and an additional 7 were identified only to the genus level. Provenience and identification information is given in Table 37-13, and stratigraphic associations are summarized in Table 37-14. The following discussion of each species, which incorporates Raymond Neck's comments on the TxDOT assemblage, provides information on their environmental tolerances and their frequencies at the Wilson-Leonard site.

Anodonta grandis is a wide-ranging species which is found in a variety of aquatic habitats but tends to prefer reasonably shallow water with a sand or mud substrate (Clarke 1981; Murray and Leonard 1962). The thin shell of this genus makes it particularly fragile, which may account for its rare occurrence in Texas sites (Murray 1982, 1986). Murray (1986) has suggested that the occurrence of *Anodonta* only in later sites may indicate this species arrived late in the region's waterways but Neck (1993) has argued that other factors, such as the fragility of its shell, may account for its absence in earlier cultural deposits.

The three examples of this species from Wilson-Leonard were all recovered from the the upper 20 cm of Unit IIIc, which parallels the temporal occurrence of this genus at other Texas sites.

Arcidens confragosus is generally found in shallow, moderate to still waters in both rivers and lake environments (Murray and Leonard 1962; Parmalee 1967). *A. confragosus* can tolerate some variation in substrate composition but is generally found in mud to sand (with some gravel) locations.

Only two examples of *A. confragosus* were identified in the Wilson-Leonard assemblage, and these came from different and temporally separated strata (see Table 37-13). One example was from stratigraphic Unit II and the second was found in Unit IIIc.

Ambelma plicata is one of three members of the subfamily Ambelminae found at the Wilson-Leonard site, and is the most common of the three in the assemblage (see Tables 37-12 and 37-13). The thick-shelled *A. plicata* is generally tolerant of a wide range of environmental conditions, although it tends to be restricted in waters under 5 feet (Clarke 1981; Murray and Leonard 1962; Parmalee et al. 1972). This species is commonly found in larger waterways with a variety of currents, and although it is found in the full range of substrate types, it tends to prefer a coarser substrate. This species can be the dominant species found at prehistoric sites in Texas, especially those adjacent to larger creeks and rivers (e.g., Brown 1987; Neck 1994).

This species is found in relatively moderate numbers at Wilson-Leonard with a total of 14 specimens recovered (see Tables 37-13 and 37-14). These were found in Units II/IIIa, IIIa/b, IIIb/c, IIIc, and Unit X in the Valley Margin.

Megaloniais nervosa is a large, thick-shelled species that inhabits larger waterways, preferring deeper water (roughly 1-5 m) and silty substrates (Murray and Leonard 1962; Parmalee 1967). It tends to be found in slow-moving waters. Although this species is widespread, it is generally rare in prehistoric sites which may reflect its low numbers in the environment (Theler 1991) or difficulty in acquiring them from deeper water parts of their habitats. This species may have increased in density in major rivers in historic times

TABLE 37-12

Scientific and Common Names for the Freshwater Mussel Shells*, Family Unionidae

Subfamily	Genus/species	Common Name
Anodontinae	<i>Anodonta grandis</i> (Say 1829)	Giant floater
	<i>Arcidens confragosus</i> (Say 1829)	Rock-pocketbook
Ambelminae	<i>Ambelma plicata</i> (Say 1817)	Threeridge
	<i>Megaloniais nervosa</i> (Rafinesque 1820)	Washboard
	<i>Quadrula pustulosa</i> (I. Lea 1831)	Pimpleback
	<i>Quincuncina mitchelli</i> (Simpson 1896)	False spike
Pleurobemini	<i>Unio tetrasmus</i> (Say 1831)	Pondhorn
Lampsilinae	<i>Lampsilis teres</i> (Rafinesque 1820)	Yellow sandshell
	<i>Lampsilis radiata</i> (Gmelin 1791)	Eastern lampmussel
	<i>Leptodea fragilis</i> (Rafinesque 1820)	Fragile paper shell
	<i>Potamilus purpuratus</i> (Lamarck 1819)	Bleufer
	<i>Toxolasma texasensis</i> (I. Lea 1857)	Texas lilliput

*Following Parmalee et al. 1972; Turgeon et al. 1988; Vaught 1989.

TABLE 37-13

Identification and Provenience of Freshwater Mollusk Remains by Excavation and Stratigraphic Unit

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
TxDOT Excavations, Valley Floor:						
Unknown	Trench?			1	Valve fragment	<i>Megaloniaias nervosa</i>
IIIc	E20S72	4		1	Umbo fragment	<i>Amblema plicata</i>
IIIc	E20S72	6		1	Valve fragment	<i>Lampsilis teres</i>
IIIc	E20S72	6		1	Valve fragment	<i>Quadrula pustulosa mortoni</i>
IIIc	E20S74	3		1	Valve fragment	<i>Potamilus purpuratus</i> , 2 holes, possibly modified
IIIc	E20S76	3		1	Fragment	Thin shell thickness
IIIc	E20S76	4		1	Hinge fragment	<i>Potamilus purpuratus</i>
IIIc	E20S78	3		1	Pseudocardinal	Medium shell thickness
IIIc	E20S78	4		1	Hinge fragment	<i>Potamilus purpuratus</i>
IIIc	E20S78	5		1	Entire valve	<i>Amblema plicata</i>
IIIc	E20S78	6		1	Fragment	Medium shell thickness
IIIc	E20S80	2		2	Fragment	Medium shell thickness
IIIc	E20S80	4		2	Fragment	Medium shell thickness
IIIc	E20S80	6		1	Fragment	Medium shell thickness
IIIc	E20S82	1		1	Hinge fragment	<i>Anodonta grandis</i>
IIIc	E20S82	2	F7	2	Fragment	Medium shell thickness
IIIc	E20S82	4		1	Valve fragment	<i>Potamilus purpuratus</i>
IIIc	E28S78	2		1	Fragment	Thin shell thickness
IIIc	E28S78	2		1	Pseudocardinal	<i>Potamilus purpuratus</i>
IIIc	E28S78	2		1	Hinge fragment	Medium shell thickness, burned
IIIc	E28S78	2		1	Fragment	Thick shell thickness
IIIc	E28S78	3		4	Fragment	Medium shell thickness
IIIc	E28S78	4		1	Fragment	Medium shell thickness
IIIc	E28S78	4		1	Fragment	Medium shell thickness
IIIc	E28S78	4		1	Valve fragment	<i>Lampsilis teres</i>
IIIc	E28S78	5	F173	12	Fragment	Thick shell thickness
IIIc	E28S78	5	F173	1	Umbo fragment	<i>Amblema plicata</i>
IIIc	E28S78	6		4	Fragment	Medium shell thickness
IIIc	E40S70	2		3	Fragment	Medium shell thickness
IIIc	E40S70	3		1	Fragment	Medium shell thickness
IIIc	E40S70	5		1	Entire valve	<i>Amblema plicata</i> , with posterior margin removed
IIIc	E40S70	6		1	Fragment	Medium shell thickness
IIIb/c	E20S72	8		1	Hinge fragment	Thin to medium shell thickness
IIIb/c	E20S74	8		1	Fragment	Medium shell thickness
IIIb/c	E20S78	7		1	Umbo fragment	<i>Lampsilis teres</i>
IIIb/c	E20S78	8		1	Fragment	Medium shell thickness
IIIb/c	E20S78	9A		1	Fragment	Medium shell thickness
IIIb/c	E20S82	7		1	Umbo fragment	<i>Megaloniaias nervosa</i> , water worn, from very large shell
IIIb/c	E20S82	8		1	Fragment	Thin shell thickness
IIIb/c	E22S80	8		1	Fragment	<i>Amblema plicata</i>
IIIb/c	E28S78	7		1	Umbo fragment	<i>Potamilus purpuratus</i>
IIIb/c	E28S78	7		1	Fragment	Medium shell thickness
IIIb/c	E40S70	7		1	Fragment	Medium shell thickness
IIIb/c	E40S70	7		1	Umbo fragment	<i>Lampsilis teres</i>
IIIb/c	E40S70	8		3	Fragment	Thin shell thickness
IIIb/c	E40S70	8		4	Fragment	Medium shell thickness
IIIb/c	E40S70	9		1	Hinge fragment	<i>Potamilus purpuratus</i>
IIIb/c	E40S70	9		2	Fragment	Medium shell thickness
IIIb/c	E40S70	9		2	Fragment	Medium shell thickness
IIIb	E20S72	11B		1	Fragment	Medium to thick shell thickness
IIIb	E20S72	13B		1	Fragment	Medium shell thickness

Table 37-13, continued

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
IIIb	E20S76	11A	F50	1	Fragment	Medium shell thickness
IIIb	E20S76	12A		1	Valve fragment	<i>Leptodea fragilis</i>
IIIb	E20S76	13A		1	Fragment	Thin to medium shell thickness
IIIb	E20S76	13B		1	Fragment	Medium shell thickness
IIIb	E20S78	12		1	Umbo fragment	<i>Lampsilis teres</i>
IIIb	E20S78	12A		1	Fragment	Medium shell thickness
IIIb	E20S78	12B		1	Fragment	Medium shell thickness
IIIb	E20S80	10		1	Valve fragment	<i>Potamilus purpuratus</i>
IIIb	E20S80	11		1	Fragment	<i>Lampsilis teres</i>
IIIb	E20S80	12		2	Fragment	Medium shell thickness
IIIb	E20S82	12		1	Fragment	Thin to medium shell thickness
IIIb	E20S82	12		1	Hinge fragment	Medium shell thickness
IIIb	E20S82	13		1	Valve fragment	Thick shell thickness, leached
IIIb	E20S82	13		2	Fragment	Medium shell thickness
IIIb	E22S80	9		1	Fragment	Thick shell thickness, leached
IIIb	E22S80	11		1	Fragment	Medium shell thickness
IIIb	E28S78	10		1	Umbo fragment	Thin to medium shell thickness
IIIb	E28S78	11		1	Hinge fragment	<i>Lampsilis teres</i>
IIIb	E28S78	12		1	Fragment	Thick shell thickness
IIIb	E28S78	12		3	Fragment	Medium shell thickness
IIIb	E28S78	13		1	Fragment	Thin shell thickness
IIIb	E40S70	10		3	Fragment	Thin to medium shell thickness
IIIb	E40S70	11		2	Fragment	Medium shell thickness
IIIa/b	E20S76	14B		1	Valve fragment	<i>Potamilus purpuratus</i>
IIIa/b	E20S82	14		1	Fragment	Medium shell thickness, leached
IIIa/b	E20S82	14		1	Valve fragment	<i>Potamilus purpuratus</i>
IIIa/b	E22S72	15		1	Fragment	Thick shell thickness
IIIa/b	E22S72	16A		3	Fragment	Medium shell thickness
IIIa/b	E22S78	15		1	Fragment	Thin to medium shell thickness
IIIa/b	E24S72	15		2	Fragment	Medium shell thickness
IIIa/b	E24S74	15		1	Fragment	Thin to medium shell thickness
IIIa/b	E24S76	15		1	Valve fragment	<i>Lampsilis teres</i>
IIIa/b	E24S78	15		1	Fragment	Medium to thick shell thickness
IIIa/b	E26S76	15		4	Fragment	Thin to medium shell thickness
IIIa/b	E26S78	15		1	Valve fragment	<i>Amblema plicata</i> , leached
IIIa/b	E28S78	14		1	Umbo fragment	<i>Lampsilis teres</i>
IIIa/b	E28S78	15A		1	Fragment	Thin to medium shell thickness
IIIa/b	E40S70	12		2	Fragment	Thin to medium shell thickness
IIIa	E20S72	16A		1	Fragment	Thick shell thickness
IIIa	E20S72	16A		3	Fragment	Medium shell thickness
IIIa	E20S72	16B		2	Fragment	Medium shell thickness
IIIa	E20S72	17A		1	Umbo fragment	<i>Lampsilis teres</i>
IIIa	E20S72	17B		1	Umbo fragment	<i>Toxolasma texasensis</i>
IIIa	E20S72	17B		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E20S72	18A		5	Valve fragment	Medium to thick shell thickness
IIIa	E20S72	18A		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E20S72	18B		3	Fragment	Medium shell thickness
IIIa	E20S72	19B		1	Fragment	Medium shell thickness
IIIa	E20S74	15B		7	Fragment	Medium shell thickness
IIIa	E20S74	16A		1	Hinge fragment	Medium shell thickness
IIIa	E20S74	16A		3	Fragment	Medium shell thickness
IIIa	E20S74	16B		4	Fragment	Medium shell thickness
IIIa	E20S74	17B		1	Hinge fragment	Medium shell thickness

Table 37-13, continued

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
IIIa	E20S74	17B		1	Fragment	Medium shell thickness
IIIa	E20S74	18B		1	Fragment	Medium shell thickness
IIIa	E20S74	18B		1	Umbo fragment	<i>Lampsilis radiata hydiana</i>
IIIa	E20S76	15A		2	Fragment	Thin shell thickness
IIIa	E20S76	15B		2	Fragment	Medium shell thickness
IIIa	E20S76	16A		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E20S76	17B		1	Fragment	Medium shell thickness
IIIa	E20S76	18B		2	Fragment	Thin to medium shell thickness
IIIa	E20S78	15A		3	Fragment	Medium shell thickness
IIIa	E20S78	15B		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E20S78	16A		2	Fragment	Thin shell thickness
IIIa	E20S78	17B		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E20S80	16		4	Fragment	Medium shell thickness, 1 burned
IIIa	E20S82	16		5	Fragment	Thin to medium shell thickness
IIIa	E22S72	18A		2	Valve fragment	<i>Potamilus purpuratus</i>
IIIa	E22S72	18B		6	Fragment	Medium shell thickness
IIIa	E22S72	19A		4	Fragment	Medium shell thickness
IIIa	E22S72	19B		2	Fragment	Medium shell thickness
IIIa	E22S74	16B		4	Fragment	Thin shell thickness
IIIa	E22S74	17A		2	Fragment	Medium shell thickness
IIIa	E22S74	17B		1	Fragment	Medium shell thickness
IIIa	E22S74	18A		2	Fragment	Medium shell thickness
IIIa	E22S74	18B		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E22S76	16A		1	Valve fragment	Medium shell thickness
IIIa	E22S76	16B		4	Fragment	Medium shell thickness
IIIa	E22S76	18A		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E22S76	18B		3	Fragment	Thin to medium shell thickness
IIIa	E22S76	19A		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E22S78	17A		4	Fragment	Medium shell thickness
IIIa	E22S78	18A		3	Fragment	Medium shell thickness
IIIa	E22S80	16		1	Fragment	Thin to medium shell thickness
IIIa	E24S72	16A		1	Fragment	Medium shell thickness
IIIa	E24S72	17B		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E24S72	18A		1	Fragment	Medium shell thickness
IIIa	E24S72	18B		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E24S72	19A		1	Hinge fragment	Medium shell thickness
IIIa	E24S72	19A		1	Entire valve	<i>Lampsilis teres</i>
IIIa	E24S72	19A		1	Fragment	Medium shell thickness
IIIa	E24S74	16B		1	Fragment	Thin to medium shell thickness
IIIa	E24S74	17A		3	Fragment	Medium shell thickness
IIIa	E24S74	17B		1	Fragment	Thin shell thickness
IIIa	E24S74	17B		2	Fragment	Thick shell thickness
IIIa	E24S74	18A		1	Umbo fragment	<i>Lampsilis teres</i>
IIIa	E24S74	18B		3	Fragment	Medium shell thickness
IIIa	E24S74	19A		1	Fragment	Medium shell thickness
IIIa	E24S74	19B		1	Fragment	Medium shell thickness
IIIa	E24S76	16A		1	Fragment	Thin to medium shell thickness
IIIa	E24S76	16B		1	Fragment	Medium shell thickness
IIIa	E24S76	17A		1	Fragment	Medium shell thickness
IIIa	E24S76	17A		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E24S76	17B		1	Fragment	Medium shell thickness
IIIa	E24S76	18A		3	Fragment	Medium to thick shell thickness
IIIa	E24S76	19A		2	Fragment	Medium shell thickness

Table 37-13, continued

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
IIIa	E24S78	16A		5	Fragment	Medium shell thickness
IIIa	E24S78	17A		1	Fragment	Medium shell thickness
IIIa	E24S78	18B		1	Valve fragment	<i>Lampsilis teres</i> , bleached
IIIa	E26S72	16A		1	Umbo fragment	Medium shell thickness
IIIa	E26S72	16A		2	Fragment	Medium shell thickness
IIIa	E26S72	17B		2	Fragment	Medium shell thickness
IIIa	E26S72	18A		1	Valve fragment	<i>Lampsilis teres</i> , bleached
IIIa	E26S72	18B		1	Umbo fragment	<i>Lampsilis radiata hydiana</i>
IIIa	E26S72	18B		6	Fragment	Medium shell thickness
IIIa	E26S72	19A		1	Fragment	Medium shell thickness
IIIa	E26S74	16A		1	Fragment	Thin to medium shell thickness
IIIa	E26S74	16B		1	Fragment	Thin shell thickness
IIIa	E26S74	17A		1	Fragment	Medium shell thickness
IIIa	E26S74	17B		1	Fragment	Thin to medium shell thickness
IIIa	E26S74	18B		1	Fragment	Medium shell thickness
IIIa	E26S74	18B		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E26S76	16A		2	Fragment	Medium shell thickness
IIIa	E26S76	17A		1	Fragment	Medium shell thickness
IIIa	E26S76	17B		1	Entire valve	<i>Potamilus purpuratus</i>
IIIa	E26S76	18A		3	Fragment	Thin to medium shell thickness
IIIa	E26S78	16A	F124	3	Fragment	Medium shell thickness
IIIa	E26S78	16B	F124	1	Fragment	Thick shell thickness
IIIa	E26S78	16B	F124	1	Fragment	Medium shell thickness
IIIa	E26S78	17A		4	Fragment	Medium shell thickness
IIIa	E26S78	18A		1	Entire valve	<i>Lampsilis teres</i>
IIIa	E26S78	18A		3	Fragment	Medium shell thickness
IIIa	E26S78	18B		2	Fragment	Medium shell thickness, bleached
IIIa	E28S78	16A	F181	1	Fragment	Medium shell thickness
IIIa	E28S78	16B	F181	1	Valve fragment	<i>Potamilus purpuratus</i>
IIIa	E28S78	16B	F181	1	Hinge fragment	<i>Toxolasma texasensis</i> , large individual
IIIa	E28S78	17A		1	Fragment	Medium shell thickness
IIIa	E28S78	17A		3	Hinge fragment	Medium shell thickness
IIIa	E28S78	17B	F181	3	Fragment	Thin to medium shell thickness
IIIa	E28S78	18A		3	Fragment	Thin to medium shell thickness
IIIa	E40S70	14		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E40S70	15		1	Fragment	Medium shell thickness
IIIa	E40S70	15		1	Valve fragment	<i>Potamilus purpuratus</i>
IIIa	E40S70	16		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E40S70	17		1	Fragment	Thin to medium shell thickness
III	E0N8	8	BRM 2	1	Hinge fragment	<i>Leptodea fragilis</i>
III	E0N8	10	BRM 2	1	Fragment	Medium shell thickness
III	E0N8	11	BRM 2	1	Fragment	Thin shell thickness
III	E0N8	11	BRM 2	1	Fragment	Medium shell thickness
III	E0N8	14		1	Fragment	Medium shell thickness
III	E0N8	15		1	Umbo fragment	<i>Lampsilis teres</i>
III	E0N8	17		1	Fragment	Medium shell thickness
III	E0N8	18		1	Fragment	Thin shell thickness
III	E0N8	20		1	Fragment	Thin to medium shell thickness
III	E0N8	20		1	Fragment	Medium shell thickness
III	E0N8	21		1	Fragment	Medium shell thickness
III	E0N8	21		1	Pseudocardinal	Medium shell thickness
III	E24S64	14		1	Fragment	Medium shell thickness
III	E24S64	15		1	Fragment	Medium shell thickness

Table 37-13, *continued*

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
III	E24S64	15		1	Fragment	Thin to medium shell thickness
III	E24S64	15		1	Fragment	Thin to medium shell thickness
III	E24S64	15		1	Fragment	Medium shell thickness
III	E24S64	15		1	Umbo fragment	<i>Lampsilis teres</i>
III	E24S64	16		1	Umbo fragment	Medium shell thickness
III	E24S64	16		2	Fragment	Medium shell thickness
III	E24S64	16		2	Fragment	Medium shell thickness
III	E24S64	16		2	Fragment	Medium shell thickness
III	E2N8	7	BRM 2	1	Fragment	Medium shell thickness
III	E2N8	11	BRM 2	1	Fragment	Thin to medium shell thickness
III	E2N8	11	BRM 2	2	Fragment	Thin to medium shell thickness
III	E2N8	12		1	Fragment	Thin shell thickness
III	E2N8	14		1	Fragment	Medium shell thickness
III	E2N8	15		2	Hinge fragment	Medium shell thickness
III	E2N8	16		2	Fragment	Thin shell thickness
III	E2N8	19		1	Fragment	Thin to medium shell thickness
III	E2N8	20		1	Umbo fragment	<i>Lampsilis teres</i>
II/IIIa	E20S74	20A		1	Fragment	Medium shell thickness
II/IIIa	E20S78	19A		1	Hinge fragment	Medium shell thickness, burned
II/IIIa	E20S80	17		1	Fragment	Medium shell thickness
II/IIIa	E20S82	18		1	Valve fragment	<i>Lampsilis teres</i>
II/IIIa	E22S72	20A		1	Umbo fragment	<i>Lampsilis teres</i>
II/IIIa	E22S72	20B		1	Fragment	Medium shell thickness
II/IIIa	E22S72	20B		1	Fragment	Medium shell thickness
II/IIIa	E22S72	20B		1	Fragment	Medium shell thickness
II/IIIa	E22S72	21A		1	Hinge fragment	Medium shell thickness
II/IIIa	E22S72	21A		1	Fragment	Thick shell thickness
II/IIIa	E22S74	19B		4	Fragment	Medium shell thickness
II/IIIa	E22S74	20A		1	Entire valve	<i>Lampsilis teres</i>
II/IIIa	E24S74	21B	F150	1	Fragment	Medium shell thickness
II/IIIa	E22S76	20A		1	Fragment	Medium shell thickness, bleached
II/IIIa	E22S78	18B		1	Fragment	Medium shell thickness
II/IIIa	E22S78	19B		1	Fragment	Medium shell thickness
II/IIIa	E22S80	17		1	Fragment	Medium shell thickness
II/IIIa	E24S72	19B		1	Fragment	Thin to medium shell thickness
II/IIIa	E24S72	19B		1	Fragment	Medium shell thickness
II/IIIa	E24S72	20B		1	Fragment	Medium shell thickness
II/IIIa	E24S72	21A		1	Hinge fragment	Medium shell thickness
II/IIIa	E24S72	21A		1	Fragment	Medium shell thickness
II/IIIa	E24S74	20B		1	Fragment	Medium shell thickness
II/IIIa	E24S76	19B		1	Fragment	Medium shell thickness
II/IIIa	E24S76	20A		1	Fragment	Medium shell thickness
II/IIIa	E24S76	20B		1	Fragment	Thin to medium shell thickness
II/IIIa	E24S78	19A		3	Fragment	Medium shell thickness
II/IIIa	E24S78	19B		1	Fragment	Medium shell thickness
II/IIIa	E26S72	19B		2	Fragment	Thin shell thickness
II/IIIa	E26S72	20A		1	Fragment	Medium shell thickness
II/IIIa	E26S72	20A		1	Entire valve	<i>Lampsilis teres</i>
II/IIIa	E26S72	20B		1	Fragment	Medium shell thickness
II/IIIa	E26S74	20B		1	Umbo fragment	<i>Lampsilis teres</i>
II/IIIa	E26S74	21A		2	Fragment	Medium shell thickness
II/IIIa	E26S76	19B		1	Fragment	Thin to medium shell thickness
II/IIIa	E26S76	19B		1	Entire valve	<i>Lampsilis radiata hydiana</i>

Table 37-13, continued

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
II/IIIa	E26S76	19B		1	Fragment	Medium shell thickness
II/IIIa	E26S76	19B		1	Valve fragment	<i>Toxolasma texasensis</i>
II/IIIa	E26S76	20A		1	Fragment	Thin to medium shell thickness
II/IIIa	E26S76	20B		1	Fragment	Medium shell thickness
II/IIIa	E26S76	20B		1	Fragment	Medium shell thickness, leached
II/IIIa	E26S78	19B		1	Umbo fragment	<i>Lampsilis teres</i>
II/IIIa	E28S78	18A		1	Fragment	Thin shell thickness
II/IIIa	E28S78	18B		1	Fragment	Medium shell thickness
II/IIIa	E28S78	18B	F183	1	Fragment	Thin shell thickness
II/IIIa	E28S78	18B	F183	1	Valve fragment	<i>Lampsilis teres</i>
II/III	E2N8	23		1	Fragment	Medium shell thickness
II	E20S72	21A		1	Fragment	Thin to medium shell thickness
II	E20S80	20		1	Fragment	Thin to medium shell thickness
II	E20S80	21		1	Valve fragment	<i>Toxolasma texasensis</i>
II	E20S82	19		1	Fragment	Medium shell thickness
II	E20S82	21		1	Fragment	Medium shell thickness
II	E22S72	21B		1	Fragment	Medium shell thickness
II	E22S72	21B		1	Valve fragment	<i>Toxolasma texasensis</i>
II	E22S72	21B		1	Valve fragment	<i>Lampsilis teres</i>
II	E22S72	22A		1	Fragment	Medium shell thickness
II	E22S72	22A		2	Fragment	Medium shell thickness
II	E22S72	22B		1	Fragment	Medium shell thickness
II	E22S72	22B		1	Fragment	Medium shell thickness
II	E22S72	23A		2	Fragment	Thin to medium shell thickness
II	E22S72	23B		1	Fragment	<i>Lampsilis teres</i>
II	E22S72	24A		1	Fragment	Medium shell thickness
II	E22S72	24B		1	Valve fragment	<i>Lampsilis teres</i>
II	E22S72	24B		1	Fragment	Medium to thick shell thickness
II	E22S72	24B		1	Valve fragment	<i>Lampsilis teres</i>
II	E22S72	25A		1	Valve fragment	<i>Lampsilis teres</i>
II	E22S74	21A		2	Hinge fragment	Medium shell thickness
II	E22S74	21B		1	Entire valve	<i>Lampsilis teres</i>
II	E22S74	23B		1	Fragment	Medium shell thickness
II	E22S74	24A		1	Entire valve	<i>Lampsilis teres</i>
II	E22S76	21A		1	Fragment	Medium shell thickness
II	E22S76	21A		1	Hinge fragment	Medium shell thickness
II	E22S78	20A		1	Hinge fragment	Medium shell thickness
II	E22S78	22A		1	Fragment	Medium shell thickness
II	E22S78	22A		1	Fragment	Medium to thick shell thickness
II	E22S78	22A		1	Fragment	Medium shell thickness
II	E22S78	22A		1	Entire valve	<i>Lampsilis teres</i>
II	E22S80	18		1	Fragment	Medium shell thickness
II	E22S80	18		1	Hinge fragment	Medium shell thickness
II	E24S72	21B		1	Valve fragment	Medium shell thickness
II	E24S72	21B		1	Fragment	Medium shell thickness
II	E24S72	21B		2	Fragment	Medium shell thickness
II	E24S72	22A		1	Umbo fragment	<i>Lampsilis teres</i>
II	E24S72	22B		1	Fragment	Medium shell thickness
II	E24S74	21A		2	Fragment	Medium shell thickness
II	E24S74	22A		1	Fragment	Thin to medium shell thickness
II	E24S74	22A		1	Umbo fragment	<i>Lampsilis teres</i>
II	E24S74	22A		1	Fragment	Medium shell thickness
II	E24S74	22B		1	Fragment	Medium shell thickness

Table 37-13, *continued*

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
II	E24S74	23A	F157	1	Valve fragment	<i>Lampsilis teres</i>
II	E24S74	25A		1	Fragment	Medium shell thickness
II	E24S74	25A		1	Fragment	Thin to medium shell thickness
II	E24S74	25A		1	Entire valve	<i>Lampsilis teres</i>
II	E24S74	25A		1	Fragment	Medium shell thickness
II	E24S76	21A		1	Hinge fragment	Medium shell thickness
II	E24S76	21B		1	Fragment	Medium shell thickness
II	E24S76	23A		1	Fragment	Medium shell thickness
II	E24S76	24A		1	Fragment	Medium shell thickness
II	E24S76	24A		1	Hinge fragment	<i>Lampsilis teres</i>
II	E24S76	25A		1	Fragment	Medium shell thickness
II	E24S76	25A		1	Valve fragment	<i>Lampsilis teres</i>
II	E24S78	21B		1	Fragment	Medium shell thickness
II	E24S78	22A		1	Fragment	Thin to medium shell thickness
II	E26S72	21B		1	Fragment	Thin to medium shell thickness
II	E26S72	22A		1	Entire valve	<i>Lampsilis teres</i>
II	E26S72	23A		1	Fragment	Medium shell thickness
II	E26S72	24B		1	Umbo fragment	<i>Uniomereus tetralasmus</i>
II	E26S72	26B		1	Entire valve	<i>Lampsilis teres</i>
II	E26S72	26B		1	Fragment	Medium shell thickness
II	E26S72	27A		1	Fragment	Medium shell thickness
II	E26S72	27B		2	Fragment	Medium shell thickness
II	E26S74	22A		2	Fragment	Thin to medium shell thickness
II	E26S74	23A		1	Fragment	Medium to thick shell thickness
II	E26S74	24A		1	Fragment	Medium shell thickness
II	E26S74	24B		1	Fragment	Thin to medium shell thickness
II	E26S74	25A		1	Fragment	Medium shell thickness
II	E26S76	21B		1	Fragment	Medium shell thickness
II	E26S76	22B		1	Fragment	<i>Lampsilis teres</i>
II	E26S76	23A		1	Fragment	Medium shell thickness
II	E26S76	23A		1	Fragment	Medium shell thickness
II	E26S76	23A		1	Valve fragment	<i>Lampsilis teres</i>
II	E26S76	24B		1	Umbo fragment	<i>Lampsilis teres</i>
II	E26S78	21A		1	Fragment	Medium shell thickness
II	E28S78	18B		1	Fragment	Thin to medium shell thickness
II	E28S78	20B		1	Valve fragment	<i>Lampsilis teres</i>
II	E28S78	21A		1	Fragment	Medium shell thickness
II	E28S78	21A		1	Entire valve	<i>Arcidens confragosus</i>
II	E28S78	23A		1	Fragment	Medium shell thickness
II	E40S70	21		1	Valve fragment	Medium to thick shell thickness
Id/II	E20S78	22A		1	Fragment	Thin to medium shell thickness
Id/II	E20S78	22B		1	Entire valve	<i>Lampsilis teres</i>
Id/II	E20S78	23B		1	Hinge fragment	<i>Lampsilis teres</i>
Id/II	E22S74	25B		1	Fragment	Thin to medium shell thickness
Id/II	E22S74	26A		1	Fragment	Medium shell thickness
Id/II	E22S76	26A		1	Fragment	Medium shell thickness
Id/II	E22S78	25A		1	Fragment	Medium shell thickness
Id/II	E26S78	25A		1	Fragment	Medium to thick shell thickness
Id/II	E26S78	25B		1	Fragment	Medium shell thickness
Id/II	E26S78	26A		1	Fragment	Thin to medium shell thickness
Id/II	E28S78	25A		1	Fragment	Medium to thick shell thickness
Isi-c/II	E24S72	28A		1	Fragment	Medium shell thickness
Isi-c/II	E24S74	27B		1	Fragment	Medium shell thickness

Table 37-13, continued

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
Isi-c/II	E26S72	29A	F163	1	Valve fragment	Medium shell thickness
Isi-c/II	E26S72	29A		1	Fragment	Medium shell thickness
Isi-c/II	E26S74	27B		1	Fragment	Medium shell thickness
Isi-c/II	E26S74	28A		1	Fragment	Medium shell thickness
I/II	E2N8	25A		1	Hinge fragment	<i>Lampsilis teres</i>
Isi-c/Id	E22S78	26A		1	Umbo fragment	<i>Lampsilis teres</i>
Isi-c/Id	E22S78	26B		1	Fragment	Medium shell thickness
Isi-c/Id	E22S80	24		1	Fragment	Medium shell thickness
Isi-c/Id	E24S76	27B		1	Fragment	Medium shell thickness
Isi-c/Id	E26S78	28B		1	Valve fragment	Medium shell thickness
Isi-c	E20S72	28B		1	Valve fragment	<i>Lampsilis teres</i>
Isi-c	E20S76	27A		1	Valve fragment	<i>Lampsilis teres</i>
Isi-c	E20S78	27A		1	Fragment	Medium shell thickness
Isi-c	E20S80	25		1	Fragment	Medium shell thickness
Isi-c	E22S72	28B		1	Fragment	Medium shell thickness
Isi-c	E22S72	28B		1	Entire valve	<i>Lampsilis teres</i>
Isi-c	E22S72	31A		3	Fragment	Thin to medium shell thickness
Isi-c	E22S74	28B		1	Fragment	Medium shell thickness
Isi-c	E22S74	29B		1	Hinge fragment	Medium shell thickness
Isi-c	E22S74	29B		1	Umbo fragment	<i>Unio tetrasmus</i>
Isi-c	E22S74	30A		1	Fragment	Medium shell thickness
Isi-c	E22S76	27B		1	Fragment	Medium shell thickness
Isi-c	E22S76	27B		1	Pseudocardinal	Medium shell thickness
Isi-c	E22S76	28A		1	Fragment	Medium shell thickness
Isi-c	E22S76	30A		1	Fragment	Medium shell thickness
Isi-c	E22S76	30A		1	Fragment	Medium shell thickness
Isi-c	E22S76	30A		1	Valve fragment	<i>Potamilus purpuratus</i>
Isi-c	E22S76	30B		1	Fragment	Medium shell thickness
Isi-c	E24S72	29B		1	Hinge fragment	Medium shell thickness
Isi-c	E24S72	29B		1	Hinge fragment	Medium shell thickness
Isi-c	E24S72	29B		1	Umbo fragment	Medium shell thickness
Isi-c	E24S72	30A		2	Fragment	Medium shell thickness
Isi-c	E24S74	30B		1	Fragment	Medium shell thickness
Isi-c	E24S74	30A		1	Fragment	Thin to medium shell thickness
Isi-c	E24S78	28B		1	Hinge fragment	Medium shell thickness
Isi-c	E26S72	30A		1	Fragment	Thin to medium shell thickness
Isi-c	E26S72	30B		1	Fragment	Medium shell thickness
Isi-c	E26S72	31A		1	Fragment	Medium shell thickness
Isi-c	E26S72	31B		1	Fragment	Medium shell thickness
Isi-c	E26S74	30A		1	Fragment	Medium shell thickness
Isi-c	E26S76	30B		1	Fragment	Medium shell thickness
Isi-c	E26S78	30A		2	Fragment	Medium shell thickness
Isi-c	E26S78	30B		1	Valve fragment	Medium shell thickness
Isi-c	E26S78	30B		1	Fragment	Medium shell thickness, leached
Isi-c	E26S78	31A		1	Fragment	Medium shell thickness
Isi-c	E26S78	32A		1	Fragment	Medium shell thickness
Isi-c	E28S78	28B		2	Valve fragment	Medium shell thickness
Isi-c	E28S78	31A		1	Fragment	Thin to medium shell thickness
Isi/Isi-c	E20S76	28B		1	Valve fragment	<i>Lampsilis teres</i>
Isi/Isi-c	E22S78	28B		1	Fragment	Thin shell thickness
Isi/Isi-c	E24S78	30A		1	Fragment	Thin to medium shell thickness
Isi/Isi-c	E24S78	31B		1	Entire valve	<i>Quincuncina mitchelli</i>
Icl/Isi-c	E22S72	31B		1	Umbo fragment	<i>Unio tetrasmus</i>

Table 37-13, *continued*

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
Icl/Isi-c	E22S72	31B		1	Hinge fragment	Thin shell thickness, very small individual
Isi/Icl/Isi-c	E22S76	32A		1	Fragment	Medium shell thickness
I	E2N8	25B		1	Fragment	Medium shell thickness
I	E2N8	26A		1	Fragment	Medium shell thickness
I	E40S70	23		1	Fragment	Medium shell thickness
Isi/Icl	E26S72	39B		1	Fragment	Thin shell thickness, burned
Igl/Isi	E24S72	40B		1	Fragment	Thin shell thickness
Valley Margin:						
Surface	Surface			1	Entire valve	<i>Quadrula</i> sp.
IIIc	E20S100	4		1	Fragment	Thin to medium shell thickness
IIIc	E20S84	3		2	Valve fragment	<i>Lampsilis teres</i>
IIIc	E20S84	4		1	Valve fragment	Medium shell thickness
IIIc	E20S84	5		1	Fragment	Medium shell thickness
IIIc	E20S84	6		1	Valve fragment	<i>Potamilus purpuratus</i>
IIIc	E20S84	6		2	Fragment	Medium shell thickness
IIIc	E20S86	2		1	Hinge fragment	<i>Anodonta grandis</i>
IIIc	E20S86	2		1	Umbo fragment	<i>Lampsilis teres</i>
IIIc	E20S86	2		1	Umbo fragment	<i>Unio merus tetralasmus</i>
IIIc	E20S86	2		1	Fragment	Medium shell thickness
IIIc	E20S86	6		5	Fragment	Medium shell thickness
IIIc	E20S88	1		1	Fragment	Thick shell thickness
IIIc	E20S88	3	BRM 1	2	Valve fragment	<i>Amblema plicata</i>
IIIc	E20S88	4	BRM 1	12	Fragment	Medium to thick shell thickness
IIIc	E20S88	5	BRM 1	2	Fragment	Medium shell thickness
IIIc	E20S90	1		2	Fragment	Medium shell thickness
IIIc	E20S90	2	BRM 1	10	Fragment	Medium shell thickness
IIIc	E20S90	8	BRM 1	1	Hinge fragment	Medium shell thickness
IIIc	E20S94	5	BRM 1	4	Fragment	Thin to medium shell thickness
IIIc	E20S94	7		1	Umbo fragment	<i>Lampsilis teres</i>
IIIc	E20S98	2		1	Fragment	Medium shell thickness
IIIc	E20S98	2		1	Hinge fragment	<i>Megaloniais nervosa</i>
IIIc	E20S98	2		3	Fragment	Thin to medium shell thickness
IIIc	E22S100	1		2	Valve fragment	Medium shell thickness
IIIc	E22S84	6		1	Fragment	Medium shell thickness
IIIc	E22S86	7	BRM 1	1	Fragment	Thin to medium shell thickness
IIIc	E22S98	1		1	Hinge fragment	<i>Anodonta grandis</i>
IIIc	E22S98	1		1	Umbo fragment	<i>Potamilus purpuratus</i>
IIIc	E22S98	1		1	Hinge fragment	<i>Potamilus purpuratus</i>
IIIc	E22S98	5	BRM 1	1	Hinge fragment	<i>Potamilus purpuratus</i> , probably bleached
IIIc	E22S98	5	BRM 1	4	Fragment	<i>Potamilus purpuratus</i> , probably bleached
IIIc/POT	E20S92	1		1	Hinge fragment	Medium shell thickness
IIIc/POT	E20S92	1		2	Fragment	Medium shell thickness
IIIc/POT	E20S92	2	BRM 1	1	Fragment	<i>Potamilus purpuratus</i>
IIIc/POT	E20S92	3	BRM 1	1	Fragment	Medium shell thickness
IIIc/POT	E20S94	1		3	Fragment	Medium shell thickness
IIIc/POT	E20S94	2	BRM 1	1	Fragment	Medium shell thickness
IIIc/POT	E20S96	1		1	Fragment	Medium shell thickness
IIIc/POT	E20S96	2	BRM 1	1	Fragment	Thin shell thickness
IIIc/POT	E20S96	6		11	Fragment	Medium shell thickness
IIIb/c	E20S84	10		2	Fragment	Medium shell thickness
IIIb/c	E22S82	6		1	Fragment	Medium shell thickness
IIIb/c	E22S84	8		1	Fragment	Medium shell thickness
IIIb/c	E22S84	9		2	Fragment	Medium shell thickness

Table 37-13, continued

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
IIIb/c	E22S86	10		1	Fragment	Medium shell thickness
Y/IIIc	E20S88	9	BRM 1	1	Fragment	Medium shell thickness
Y/IIIc	E20/S90	9	BRM1	1	Fragment	Thin to medium shell thickness
Y/IIIc	E20/S94	9		1	Valve fragment	<i>Toxolasma texasensis</i>
Y/IIIc	E20/S96	9		3	Fragment	Thin to medium shell thickness
Y/IIIc	E22/S88	9	BRM1	1	Fragment	Medium shell thickness
Y/IIIc	E22/S90	8	BRM1	1	Valve fragment	<i>Unio merus tetralasmus</i>
Y/IIIb/c	E20S88	10	BRM 1	1	Fragment	Medium shell thickness
IIIb	E20S84	11		1	Fragment	Medium shell thickness
IIIb	E20S84	12		1	Fragment	Medium shell thickness
IIIb	E20S84	13		2	Fragment	Thin to medium shell thickness
IIIb	E20S86	10		1	Hinge fragment	Thin to medium shell thickness
IIIb	E20S86	11		1	Fragment	Medium shell thickness
IIIb	E20S86	11		1	Valve fragment	Thin to medium shell thickness
IIIb	E22S82	10		1	Fragment	Thin to medium shell thickness
IIIb	E22S82	12		6	Fragment	Thin to medium shell thickness
IIIb	E22S84	10		1	Fragment	Thin to medium shell thickness
IIIb	E22S84	12		3	Fragment	Medium to thick shell thickness
IIIb	E22S84	13		3	Fragment	Medium shell thickness
IIIb	E22S86	11		2	Valve fragment	<i>Lampsilis teres</i>
IIIb	E22S86	12		2	Hinge fragment	Medium shell thickness
IIIb	E22S86	12		1	Fragment	Medium shell thickness
Y/IIIb	E22S88	11		1	Fragment	Medium shell thickness
Y	E20S90	11		1	Fragment	Thin shell thickness
Y	E20S94	10		1	Fragment	Medium shell thickness
X/Y/IIIb	E20S88	12	F8	1	Fragment	Medium shell thickness
X/Y/IIIb	E20S88	12	F8	1	Valve fragment	<i>Unio merus tetralasmus</i>
X/Y/IIIb	E22S88	12		1	Valve fragment	<i>Lampsilis teres</i>
X/IIIb	E20S86	13		2	Fragment	Medium shell thickness
X/IIIb	E20S88	13	F8	2	Hinge fragment	<i>Leptodea fragilis</i>
X/IIIb	E22S88	13		1	Fragment	<i>Lampsilis teres</i>
X/IIIb	E22S88	14		2	Fragment	Medium shell thickness
X/Y	E20S90	13		1	Fragment	Medium shell thickness
X/Y	E20S98	12		1	Valve fragment	Medium shell thickness, leached
X/Y	E22S100	12		3	Fragment	Medium shell thickness
X/Y	E22S90	12		1	Fragment	Medium shell thickness
X/Y	E22S90	13		1	Fragment	Medium shell thickness, leached
IIIa/b	E20S84	15		3	Fragment	Medium to thick shell thickness
IIIa/b	E22S82	13		3	Fragment	Medium shell thickness
IIIa/b	E22S84	14		1	Valve fragment	<i>Amblema plicata</i>
IIIa	E20S84	16		3	Fragment	Medium shell thickness
IIIa	E20S84	17		2	Fragment	Medium to thick shell thickness, burned
IIIa	E20S84	17	F28	1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E22S82	14		1	Hinge fragment	Medium shell thickness
IIIa	E22S84	15		1	Valve fragment	<i>Lampsilis teres</i>
IIIa	E22S84	15		3	Fragment	Medium shell thickness
IIIa	E22S84	16		1	Umbo fragment	Medium shell thickness
IIIa	E22S84	16		3	Fragment	Medium shell thickness
X/IIIa	E20S86	15	F22	1	Entire valve	<i>Lampsilis teres</i>
X/IIIa	E22S86	15		3	Fragment	Medium shell thickness
X/IIIa	E22S86	15		2	Fragment	Thick shell thickness
II/IIIa	E20S84	18		1	Entire valve	<i>Lampsilis teres</i>
II/IIIa	E22S84	17		1	Fragment	Thin to medium shell thickness

Table 37-13, *continued*

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
X/II/IIIa	E20S86	16	F17	2	Fragment	Thin to medium shell thickness
X/II/IIIa	E22S86	16		1	Valve fragment	<i>Lampsilis teres</i>
X/II/IIIa	E22S86	17		1	Valve fragment	<i>Lampsilis teres</i>
X/II/IIIa	E22S86	17		1	Valve fragment	<i>Potamilus purpuratus</i>
X	E20S86	12		1	Fragment	Medium shell thickness
X	E20S88	14		4	Fragment	Medium shell thickness
X	E20S88	15		3	Fragment	Medium shell thickness
X	E20S88	16		1	Entire valve	<i>Lampsilis teres</i>
X	E20S88	17		1	Valve fragment	Thick shell thickness
X	E20S88	18		1	Fragment	Medium shell thickness
X	E20S88	20		1	Fragment	Thin to medium shell thickness
X	E20S90	15		2	Fragment	Medium shell thickness
X	E20S90	16		1	Fragment	<i>Ambelma plicata</i>
X	E20S94	16		1	Fragment	Thin shell thickness
X	E20S94	17		1	Fragment	Thick shell thickness
X	E20S96	16		2	Fragment	Medium shell thickness
X	E20S98	13		1	Fragment	Medium shell thickness
X	E20S98	15		1	Fragment	Thin shell thickness
X	E22S88	18		1	Valve fragment	<i>Lampsilis teres</i>
X	E22S88	18		1	Valve fragment	<i>Ambelma plicata</i>
X	E22S88	19		3	Fragment	Medium shell thickness
X	E22S88	26		1	Fragment	Medium shell thickness
X	E22S90	15	F19/104	2	Fragment	Thin to medium shell thickness
X	E22S90	16	F19/104	1	Fragment	Medium shell thickness
X	E22S90	18	F19/104	1	Fragment	Thin shell thickness
X	E22S90	18	F19/104	1	Fragment	Thin to medium shell thickness
X	E22S90	18	F19/104	2	Fragment	Thin to medium shell thickness
X	E22S90	18	F19/104	2	Fragment	Thin shell thickness
X	E22S90	19		1	Fragment	Medium shell thickness
X	E22S90	21		1	Fragment	Medium shell thickness
X	E22S90	23		1	Fragment	Thin to medium shell thickness
X/II	E20S86	18		2	Fragment	Thin to medium shell thickness
X/II	E20S86	19		2	Fragment	Medium to thick shell thickness, bleached
X/II	E22S84	20		1	Fragment	Thin to medium shell thickness
X/II	E22S86	18		1	Fragment	Medium shell thickness
X/II	E22S86	20		1	Fragment	Medium shell thickness
II	E20S84	19		1	Fragment	Medium shell thickness
II	E20S84	20		1	Fragment	Medium to thick shell thickness, leached
II	E22S82	20		1	Fragment	Thin to medium shell thickness
II	E22S84	18		1	Fragment	Medium shell thickness
Id/II	E22S82	23		1	Fragment	Medium shell thickness
Id/II	E22S82	23		1	Hinge fragment	<i>Lampsilis teres</i>
TARL Excavations, Valley Floor:						
IIIc/FILL	11	2		5	Fragment	Medium shell thickness
IIIc/FILL	21	5		3	Fragment	Thick shell thickness, possibly fossil or burned
IIIc/FILL	13	2		1	Fragment	Thin shell thickness
IIIc/FILL	16	2		1	Fragment	Thin to medium shell thickness
IIIc/FILL	12	2-3		3	Fragment	Thin to medium shell thickness
IIIc/FILL	13	2		1	Fragment	Medium shell thickness
IIIb/c/FIL	19	8A		1	Valve	<i>Lampsilis teres</i>
IIIc	14	5		1	Fragment	Thin shell thickness
IIIc	16	6A		1	Hinge fragment	<i>Arcidens confragosus</i>
IIIc	16	4		2	Fragment	Thick shell thickness

Table 37-13, continued

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
IIIc	14	5	BRM 1	1	Fragment	Thin shell thickness
IIIc	15	6A		1	Fragment	Thin shell thickness
IIIc	15	3		1	Pseudocardinal	Thin shell thickness
IIIc	15	3		1	Fragment	Medium shell thickness
IIIc	100	4		4	Fragment	Thin shell thickness
IIIc	16	4		1	Hinge fragment	Probably <i>Toxolasma texasensis</i> , burned, large only partial hinge
IIIc	12	4	212	1	Valve	Medium shell thickness
IIIc	14	3		1	Pseudocardinal	Thin shell thickness
IIIc	17	4		1	Fragment	Thin shell thickness
IIIc	22	6		2	Fragment	Medium shell thickness
IIIc	17	4		1	Hinge fragment	<i>Lampsilis teres</i>
IIIc	11	3		1	FV	<i>Potamilus purpuratus</i> , missing posterior part
IIIc	11	4		1	Fragment	Medium shell thickness
IIIc	17	4		1	Fragment	Medium to thick shell thickness
IIIc	22	7		4	Fragment	Medium to thick shell thickness, probably MNI=1
IIIb/c	16	9		1	Fragment	Medium shell thickness
IIIb/c	16	7A		1	Fragment	Thin to medium shell thickness
IIIb/c	11	5		1	Hinge fragment	<i>Amblema plicata</i>
IIIb/c	14	7		1	Fragment	Thick shell thickness, burned
IIIb/c	37	10		2	Fragment	Thin to medium shell thickness
IIIb/c	15	8		1	Hinge fragment	Probably <i>Toxolasma texasensis</i>
IIIb	21	14		7	Fragment	Medium shell thickness
IIIb	25	16		1	Fragment	Thin to medium shell thickness
IIIb	22	14		1	Fragment	Thin shell thickness
IIIb	25	17		2	Fragment	Thin to medium shell thickness
IIIb	20	12A		1	Fragment	Thin to medium shell thickness
IIIb	19	14A		1	Fragment	Thin to medium shell thickness
IIIb	25	15		1	Fragment	Thin shell thickness
IIIb	19	11		1	Fragment	Medium shell thickness, burned
IIIb	19	11		1	Fragment	Thin shell thickness
IIIb	18	13		1	Fragment	Thin to medium shell thickness
IIIb	17	10		2	Fragment	Medium shell thickness
IIIb	17	9		1	Fragment	Medium shell thickness
IIIb	16	12A		1	Fragment	Thin shell thickness
IIIb	16	11A		1	Hinge fragment	Probably <i>Toxolasma texasensis</i>
IIIb	15	11		4	Fragment	Thin to medium shell thickness
IIIb	14	11		1	Fragment	Thin shell thickness
IIIb	19	14A		2	Fragment	Medium shell thickness, 1 probably burned
IIIb	13	9		1	Fragment	Medium shell thickness
IIIb	38	10		2	Pseudocardinal	Medium to thick shell thickness
IIIb	38	12A		10	Valve	Medium shell thickness
IIIb	27	15		1	Fragment	Medium shell thickness
IIIb	22	12A		1	Fragment	Thin to medium shell thickness
IIIb	13	8		1	Fragment	Thin shell thickness
IIIb	11	10		1	Hinge fragment	<i>Toxolasma texasensis</i>
IIIb	37	13B		2	Fragment	Thin shell thickness
IIIb	13	11A		1	Fragment	Medium shell thickness
IIIa/b	13	13		1	Hinge fragment	<i>Amblema plicata</i>
IIIa/b	52	17		1	Fragment	Thin shell thickness
IIIa/b	35	14		3	Fragment	Medium shell thickness
IIIa/b	37	14		2	Fragment	Thin to medium shell thickness
IIIa/b	27	17		2	Fragment	Thin to medium shell thickness

Table 37-13, *continued*

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
IIIa/b	15	13		1	Fragment	Thin to medium shell thickness
IIIa/b	15	12		1	Fragment	Thin shell thickness
IIIa/b	38	16		1	Hinge fragment	Medium shell thickness
IIIa/b	13	12A		5	Fragment	Thin to medium shell thickness
IIIa	14	14		1	Fragment	Thin shell thickness
IIIa	14	15		4	Fragment	Thin shell thickness
IIIa	14	16		4	Fragment	Thin to medium shell thickness
IIIa	12	19		1	Fragment	Thin shell thickness
IIIa	25	22		1	Fragment	Thin to medium shell thickness
IIIa	25	25		4	Fragment	Thin shell thickness
IIIa	12	19		1	Fragment	Medium shell thickness
IIIa	32	15		1	Pseudocardinal	Medium shell thickness
IIIa	33	19	231	2	Fragment	Thin shell thickness
IIIa	30	14		1	Fragment	Medium shell thickness
IIIa	28	25	245	1	Fragment	Thin shell thickness
IIIa	28	24	245	1	Fragment	Thin shell thickness
IIIa	28	24	245	1	Hinge fragment	Thin to medium shell thickness
IIIa	28	22	231	1	Hinge fragment	<i>Potamilus purpuratus</i> , burned
IIIa	26	26		1	Valve	Probably <i>Leptodea fragilis</i>
IIIa	28	20	231	1	Hinge fragment	<i>Lampsilis</i> sp., small individual
IIIa	26	22		20	Valve	Probably <i>Lampsilis</i> sp., MNI=1
IIIa	27	24-25	231	4	Fragment	Thin to medium shell thickness
IIIa	27	22	225	1	Hinge fragment	<i>Lampsilis teres</i>
IIIa	30	16		4	Fragment	Medium shell thickness
IIIa	26	26		5	Fragment	Thin shell thickness
IIIa	28	21	231	1	Hinge fragment	Thin shell thickness, very small individual
IIIa	26	25		1	Pseudocardinal	Thin to medium shell thickness
IIIa	34	18		1	Fragment	Thin shell thickness
IIIa	44	25	245	1	Valve	Thin shell thickness
IIIa	39	20	231	1	Fragment	Thin shell thickness
IIIa	39	21A	231	2	Fragment	Thin shell thickness
IIIa	39	22B	230	4	Fragment	Thin to medium shell thickness
IIIa	39	23	231	1	Entire valve	<i>Lampsilis teres</i>
IIIa	39	23	231	4	Fragment	Thin shell thickness
IIIa	39	24	231	1	Fragment	Thin shell thickness, breaks like <i>U. tetralasmus</i>
IIIa	41	22		1	Fragment	Thin to medium shell thickness
IIIa	42	26		1	Fragment	Medium shell thickness
IIIa	38	23	231	1	Hinge fragment	<i>Lampsilis teres</i>
IIIa	44	20	231	1	Hinge fragment	<i>Toxolasma texasensis</i> , very small individual
IIIa	50	17		4	Fragment	Medium shell thickness
IIIa	46	18		2	Fragment	Thin to medium shell thickness
IIIa	47	18		1	Fragment	Thin to medium shell thickness
IIIa	48	19	231	3	Fragment	Thin to medium shell thickness
IIIa	49	17		1	Hinge fragment	<i>Toxolasma texasensis</i>
IIIa	49	18		1	Fragment	Medium shell thickness
IIIa	49	20	231	1	Hinge fragment	<i>Lampsilis teres</i>
IIIa	49	21	231	1	Hinge fragment	<i>Toxolasma texasensis</i>
IIIa	52	20	231	1	Fragment	Thin shell thickness
IIIa	52	22	231	4	Fragment	Thin shell thickness
IIIa	52	23	231	1	Fragment	Thin shell thickness
IIIa	43	22	231	1	Hinge fragment	<i>Toxolasma texasensis</i>
IIIa	34	15		2	Fragment	Thin to medium shell thickness
IIIa	34	21	231	1	Hinge fragment	<i>Potamilus purpuratus</i>

Table 37-13, continued

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
IIIa	38	19		3	Pseudocardinal	Thin to medium shell thickness
IIIa	35	21	231	2	Fragment	Thin shell thickness
IIIa	37	22	231	3	Fragment	Thin shell thickness
IIIa	37	21	231	1	Fragment	Thin shell thickness
IIIa	37	18		2	Fragment	Medium shell thickness
II/IIIa	28	28		1	Fragment	Thin shell thickness, possibly burned
II/IIIa	38	25B	231	1	Fragment	Thin shell thickness
II/IIIa	33	23		2	Fragment	Thin shell thickness
II/IIIa	34	23A	231	6	Fragment	Thin shell thickness
II/IIIa	34	24	231	2	Fragment	Thin shell thickness
II/IIIa	38	24B-	231	1	Fragment	Thin shell thickness
II/IIIa	33	22		1	Fragment	Thin shell thickness
II/IIIa	38	24	231	1	Fragment	Thin shell thickness
II/IIIa	33	21		2	Fragment	Thin shell thickness
II/IIIa	34	22	231	1	Fragment	Medium shell thickness
II/IIIa	38	24	231	2	Fragment	Thin shell thickness
II/IIIa	28	30A		1	Fragment	Thin shell thickness
II/IIIa	30	19		1	Valve	Probably <i>Lampsilis</i> sp.
II/IIIa	35	23		1	Fragment	Thin to medium shell thickness
II/IIIa	35	24		1	Hinge fragment	<i>Unio merus tetralasmus</i>
II/IIIa	37	25		1	Hinge fragment	<i>Potamilus purpuratus</i>
II/IIIa	37	24A		10	Fragment	Medium shell thickness, probably MNI=1
II/IIIa	30	18		4	Fragment	Thin to medium shell thickness
II/IIIa	28	27B	245	1	Fragment	Thin shell thickness
II/IIIa	42	29		1	Fragment	Thin shell thickness
II/IIIa	32	20A		7	Fragment	Thin to medium shell thickness
II/IIIa	32	22		10	Fragment	Thin shell thickness
II/IIIa	35	22	231	1	Fragment	Thin shell thickness
II/IIIa	25	27		1	Fragment	Medium shell thickness
II/IIIa	49	22	231	1	Fragment	Thin shell thickness
II/IIIa	51	27B	249	1	Hinge fragment	<i>Amblema plicata</i>
II/IIIa	25	28		1	Fragment	Thin shell thickness
II/IIIa	52	24	231	1	Fragment	Thin shell thickness
II/IIIa	52	25B	231	1	Fragment	Thin shell thickness
II/IIIa	48	21		3	Fragment	Thin to medium shell thickness
II/IIIa	26	27		4	Valve fragment	Medium shell thickness
II/IIIa	26	28		1	Pseudocardinal	Thin to medium shell thickness
II/IIIa	26	29		1	Fragment	Thin shell thickness
II/IIIa	51	26	231	6	Fragment	Thin shell thickness
II/IIIa	52	26B	231	1	Fragment	Thin to medium shell thickness
II/IIIa	44	27		3	Fragment	Thin shell thickness
II/IIIa	41	27		1	Fragment	Thin shell thickness
II/IIIa	27	26	231	4	Fragment	Thin shell thickness
II/IIIa	27	27A		1	Fragment	Thin shell thickness
II/IIIa	43	27		1	Fragment	Thin shell thickness
II/IIIa	39	25	231	4	Fragment	Thin shell thickness
II/IIIa	25	26		11	Fragment	Thin shell thickness, MNI=1
II/IIIa	46	21A		2	Fragment	Thin to medium shell thickness
II	30	23		2	Fragment	Thin shell thickness
II	47	25		1	Hinge fragment	Thin to medium shell thickness
II	26	32		4	Fragment	Thin shell thickness
II	26	35		1	Fragment	Thin to medium shell thickness
II	46	28A		1	Fragment	Thin shell thickness

Table 37-13, continued

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
II	46	27B	232	10	Fragment	Medium shell thickness
II	46	27B	232	1	Entire valve	<i>Toxolasma texasensis</i>
II	37	28		1	Fragment	Thin shell thickness
II	37/32	27&37		1	Fragment	Thin shell thickness
II	37	30		1	Fragment	Thin shell thickness
II	39	32		1	Entire valve	<i>Potamilus purpuratus</i>
II	39	29		1	Hinge fragment	Probably <i>Toxolasma texasensis</i>
II	39	30		1	Fragment	Thin shell thickness
II	28	33		1	Fragment	Thin shell thickness
II	27	32		1	Fragment	Thin shell thickness
II	28	32		1	Fragment	Thin shell thickness
II	27	34		1	Fragment	Medium shell thickness
II	33	29		1	Pseudocardinal	Thin to medium shell thickness
II	39	31		2	Fragment	Thin to medium shell thickness
II	45	21		3	Fragment	Thin shell thickness
II	35	26A		1	Fragment	Thin shell thickness
II	34	26A		5	Fragment	Thin shell thickness, MNI=1
II	53	28	248	1	Hinge fragment	<i>Lampsilis</i> sp.
II	52	30		1	Fragment	Thin shell thickness
II	52	28A		1	Fragment	Thin shell thickness
II	35	31A		5	Fragment	Thin shell thickness
II	25	29		1	Fragment	Thin shell thickness
II	25	30		1	Entire valve	<i>Lampsilis</i> sp., probably <i>teres</i>
II	25	31		1	Fragment	Thin to medium shell thickness
II	52	28		1	Fragment	Thin shell thickness
II	35	29		1	Fragment	Thin shell thickness
II	25	33		1	Hinge fragment	<i>Toxolasma texasensis</i>
II	50	32A		1	Fragment	Thin shell thickness
II	35	30A		1	Fragment	Thin shell thickness
II	50	28		1	Fragment	Thin shell thickness
II	50	32B	249	1	Fragment	Thin shell thickness
Id/II	34	32A		1	Fragment	Thin shell thickness
Id/II	35	34		1	Fragment	Thin shell thickness
Id/II	59	36		1	Hinge fragment	<i>Toxolasma texasensis</i>
Isi-c/II	25	36		1	Entire valve	<i>Lampsilis teres</i>
Isi-c/II	25	37		1	Fragment	Thin shell thickness
Id	57	35		1	Fragment	Thin shell thickness
Isi-c/Id	56	36		1	Fragment	Thin shell thickness
Isi-c/Id	56	38		1	Pseudocardinal	Thin shell thickness
Isi-c/Id	28	38		1	Fragment	Thin shell thickness
Isi-c/Id	33	34		1	Hinge fragment	<i>Potamilus purpuratus</i>
Isi-c/Id	32	34		1	Fragment	Thin to medium shell thickness
Isi-c	46	32		2	Fragment	Thin shell thickness
Isi-c	30	32		5	Fragment	Thin to medium shell thickness, MNI=1
Isi-c	46	33		1	Fragment	Thin shell thickness
Isi-c	35	40		1	Fragment	Thin shell thickness
Isi-c	30	33A		1	Fragment	Thin shell thickness
Isi-c	28	42		2	Fragment	Thin shell thickness
Isi-c	28	41		2	Fragment	Thin to medium shell thickness
Isi/Isi-c	32	36		1	Fragment	Thin shell thickness
Isi/Isi-c	32	35		3	Fragment	Medium shell thickness
Isi/Isi-c	57	40		2	Fragment	Thin shell thickness
Isi/Isi-c	46	37		1	Fragment	Thin shell thickness

Table 37-13, *continued*

Unit	Square	Level	Feature	Number	Analyzed Part	Identification
Isi/Icl/Isi-c	57	41		1	Fragment	Thin shell thickness
Icl	58	47		1	Fragment	Medium shell thickness, burned
Isi	56	46		1	Fragment	Thin shell thickness
Isi	30	43		1	Fragment	Thin shell thickness
Isi	55	49		1	Fragment	Thin shell thickness
Igl	28	59		1	Fragment	Thin shell thickness, burned, possibly gastropod
Valley Margin:						
IIIc	100	3	BRM 1	1	Valve	<i>Lampsilis</i> sp.
IIIc	100	3	BRM 1	4	Fragment	Thick shell thickness, burned
IIIc	100	7	BRM 1	1	Fragment	Thin shell thickness
IIIc	100	7	BRM 1	1	Fragment	Medium shell thickness, burned or fossil
IIIc	100	6	BRM 1	7	Fragment	Thin shell thickness
IIIc	100	2	BRM 1	1	Pseudocardinal	Probably <i>Potamilus purpuratus</i> , very small
Y	100	10		1	Entire valve	<i>Quadrula</i> sp., probably <i>Q. pustulosa</i> , small individual, 2
Y	100	11		4	Fragment	Thin shell thickness
Y	101	12		1	Fragment	Thin shell thickness
X	101	17		4	Fragment	Thin to medium shell thickness
X	101	16		1	Fragment	Thin shell thickness
Unknown	Unknown			1	Pseudocardinal	Medium shell thickness
Unknown	Unknown			2	Hinge fragment	<i>Potamilus purpuratus</i> , MNI=2

due to the damming of waterways and increased siltation, both of which would have expanded the favored habitat of *M. nervosa*. Evidence from a number of sites indicates the large shells of *M. nervosa* were modified for use as tools, particularly as hoes, and it is suspected that its presence at some sites reflects its transport from some distant source (Brown 1987; Murray 1982; Theler 1991).

There are only three examples of *M. nervosa* identified at the Wilson-Leonard site. One is from Unit IIIc, another is from Unit IIIb/c, and the third is from a disturbed/unknown context. The specimen from Unit IIIb/c is heavily waterworn, suggesting it was collected postmortem. These shell fragments are from large individuals which suggests they were brought to the site from a larger waterway than that of Brushy Creek.

Quadrula pustulosa is found in larger waterways in a variety of substrates, often in areas of strong currents (Murray and Leonard 1962). Like *M. nervosa*, it can tolerate a wide range of water depths and is often found in deeper waters. Neck identified one of the Wilson-Leonard examples as *Q. p. mortoni* (from Unit IIIc) which is found in rivers in the east/central Texas area (Strecker 1931).

The second example from Wilson-Leonard was identified only as *Quadrula* sp., although it is probably of *Q. pustulosa* (see Tables 37-13 and 37-14). This second individual from Unit IIIb/c is very small (roughly 2 cm complete). A third specimen was recovered from the surface.

Uniomereus tetralasmus is a small, thin-shelled species found only in shallow waters with a mud substrate (Burch 1975; Murray and Leonard 1962; Parmalee 1967). This species is generally confined to small creeks with areas of slow-

moving waters or in shallow lakes or ponds (Neck, this volume).

The seven examples of this species identified in the Wilson-Leonard assemblage came from upper Unit I (Icl/Isi-c and Isi-c), Unit II, and several mixed stratigraphic units (contexts associated with lower to mid Unit III (II/IIIa, X/Y/IIIb, Y/IIIc, and IIIc) (see Tables 37-13 and 37-14).

Lampsilis teres is a common species found at prehistoric sites near most types of waterways. Although the environmental tolerances of this species are broad, it tends to prefer the deeper water in creeks, smaller rivers, and lakes with slower currents (Burch 1975; Murray 1986; Murray and Leonard 1962; Parmalee 1967). This species is found in shallow to medium depths, with several subforms adapting best to differing depths. *L. teres* greatly prefers the soft silt and mud substrates.

Lampsilis teres was the most common species identified in the Wilson-Leonard assemblage with 48% of the shell identified to genus/species falling in this taxon. It was also found in all stratigraphic units except Unit Icl which overall had a very low number of shell fragments recovered (see Tables 37-13 and 37-14).

A second member of the genus *Lampsilis*, that of *L. radiata*, was identified by Neck from the TxDOT sample, and he gave it the subform *L. r. hydiana*. This species ranges from Arkansas and Alabama westward into Texas. The *L. radiata* tends to be found in larger waterways in areas of slow-moving water and a mud substrate. This species of *Lampsilis* was identified by Neck in only three cases with these examples recovered from stratigraphic Units II/IIIa and IIIa (see Tables 37-13 and 37-14).

TABLE 37-14
Distribution of Identified Mollusks by Stratigraphic Unit

Unit	<i>Anodonta grandis</i>	<i>Arcidens confragosus</i>	<i>Amblema plicata</i>	<i>Megalania nervosa</i>	<i>Quadrula pustulosa</i>	<i>Quadrula</i> sp.	<i>Unio merus tetralasmus</i>	<i>Lampsilis teres</i>	<i>Lampsilis radiata</i>	<i>Lampsilis</i> sp.	<i>Leptodea fragilis</i>	<i>Potamilus purpuratus</i>	<i>Toxolasma texasensis</i>	<i>Quincuncina mitchelli</i>	Totals
Valley Floor:															
IIIb/c/FILL								1							1
IIIc	1	1	4		1			3				6	1		17
IIIb/c			2	1				2				2	1		8
IIIb								3			1	1	2		7
IIIa/b			2					2				2			6
IIIa								24	2	2*	1	7	6		42
III								3			1				4
II/IIIa			1				1	7	1	1		1	1		13
II		1					1	20		1		1	5		29
Id/II								2					1		3
Isi-c/II								1							1
I/II								1							1
Isi-c/Id								1				1			2
Isi-c							1	3				1			5
Isi/Isi-c								1						1	2
Icl/Isi-c							1								1
Valley Margin:															
IIIc	2		2	1			1	4		1		9			20
IIIc/POT												1			1
Y/IIIc							1						1		2
IIIb								2							2
X/Y/IIIb							1	1							2
X/IIIb								1			2				3
IIIa/b			1												1
IIIa								2							2
II/IIIa								1							1
X/IIIa								1							1
X/II/IIIa								2				1			3
Y						1									1
X			2					2							4
Id/II								1							1
Unknown				1								2			3
Surface						1									1
Totals:	3	2	14	3	1	2	7	91	3	5	5	35	18	1	190

*Although one of these was recorded as 20 fragments, the MNI = 1.

Leptodea fragilis, as the name implies, is a thin-shelled species that has a relatively high range of tolerances for different environmental conditions. It is generally found in larger waterways in areas of slower currents, although it can tolerate faster waters (Murray and Leonard 1962; Parmalee 1967). The substrate preference is generally sand or mud, but it has been known to occur in areas of coarser sub-

strates. *L. fragilis* is also reasonably tolerant in terms of preferred water depth, being found in shallow to moderate (less than about 8 feet) depths.

Five examples of *Leptodea fragilis* were identified at Wilson-Leonard and these came from stratigraphic Units IIIa, IIIb, and undifferentiated III (see Tables 37-13 and 37-14).

Potamilus purpuratus is found in areas of slow-moving water in rivers and large creeks (Murray and Leonard 1962). It is generally found in moderate (above 2 feet) depths in soft substrates. *P. purpuratus* was the second most common species within the Wilson-Leonard assemblage making up 18% of the shell identified at least to genus (see Tables 37-13 and 37-14). It was found in most strata but was most numerous in stratigraphic Units IIIa and IIIc. As a general observation, the examples of this species in the Wilson-Leonard assemblage tended to be small and/or young individuals, suggesting they were collected in the shallower end of their tolerance range.

Toxolasma texasensis has a particularly restricted environmental tolerance range, being found only in shallow (generally 1 to 2 feet) of water with very slow currents or standing water (Parmalee 1967). This species occurs in smaller rivers, creeks, and lakes and is limited to a mud substrate.

Toxolasma texasensis was found in Units Id/II, II, II/IIIa, IIIa, IIIb, IIIb/c, and IIIc with a slight increase (see Tables 37-13 and 37-14), in Units II and IIIa. The narrow range of environmental tolerances for this species makes it a good indicator of habitat conditions.

Quincuncina mitchelli is reported by Neck (report on file) to be found today in central Texas in the major waterways. It prefers sand or gravel substrates. Only one example of this species was identified in the Wilson-Leonard sample, and this comes from stratigraphic Unit Isi/Isi-c (see Table 37-13).

A large sample of mussel shell from Wilson-Leonard was unidentifiable to species. These were coded as to the portion and the thickness of the shell. The number of shell fragments was also recorded, although it was counted as one if the fragments were clearly from the same shell. For the purposes of quantifying the unidentifiable shell (see Table 37-13), each bag lot (shell retrieved from the same provenience) was counted as one, unless a clear determination of more than one individual could be made. This errs on the conservative side, possibly underrepresenting the actual number of individuals represented in the assemblage. But this strategy provides a control along which comparisons between stratigraphic units can be made in a consistent manner.

The general frequency of shell represented by the unidentifiable specimens largely follows the distribution of the identifiable individuals (compare Tables 37-13 and 37-14). The frequency of shell in stratigraphic Units I and II (including lenses within these strata) tends to be low, with stratigraphic Units IIIa and IIIc having markedly higher frequencies (see Table 37-14). The thickness of the shell fragments also parallels the size ranges of the known species from the site. Thin- to medium-walled shell far outnumber the thicker-walled types (Table 37-15). This again parallels the higher frequency of thin-shelled species such as *L. teres*, *T. texasensis*, and smaller individuals of *P. purpuratus*, in contrast to a very low frequency of species with thick shells such as *A. plicata* or *M. nervosa*.

Reconstruction of Mussel Habitats

The use of freshwater mussel shells from archeological sites as indicators of associated aquatic habitats has been pursued most vigorously for the Mississippi River drainage system (e.g., Warren 1991). The value of considering archeological mussel data for habitat reconstruction was largely initiated by Matteson (1960) and continued to be of growing interest in the midwest and southeast regions of the U.S. where sites with freshwater shell were numerous (e.g., Parmalee et al. 1972). The use of mussel data in aquatic habitat reconstruction has not been strongly quantitative, making comparisons between sites or regions generally abstract. Warren (1991) has recently proposed a method that formulates the known environmental tolerances for a number of mussel species into both a qualitative and quantitative system for numeric comparison. While Warren's information is based on data from the Mississippi River drainage, the overlap of species in Central Texas with those in his sample allows the method to be applied to the Wilson-Leonard assemblage. The use of this comparative method for the Wilson-Leonard sample is presented only as a general but reconstructable way to compare the aquatic habitats reflected by the site's mussel sample, recognizing that as more species habitat data are collected on Texas populations, this reconstruction can be refined.

The method Warren (1991) developed ranks the known habitat data into three weighted values. He researched the literature on mussel habitats and compiled data for 133 species, 10 of which are found at the Wilson-Leonard site (excluding only *Quincuncina mitchelli* and *Lampsilis radiata hydiana*). Warren ranks each species for four habitat categories; (1) water-body type, (2) water depth, (3) current velocity, and (4) substrate composition. Each of the four categories are divided into descriptive types. The raw rankings for the species found at the Wilson-Leonard site are presented in Table 37-16 following Warren (1991:Table 1). A rank of "1" means this species is relatively common within a given condition, while a rank of ".5" denotes the species can be present but is relatively uncommon. A rank of "0" indicates the species is rare or absent under the given conditions. For example, the species *A. grandis* is coded for water-body type as being common in lakes and large and small creeks (coded at 1) but is uncommon (coded as .5) in all sizes of rivers (see Table 37-16). For water depth, Warren (1991:29) used 1-foot increments to rank species tolerances, while for current velocity he used four descriptive categories, which include swift, moderate, slow, and standing. Substrate composition is divided into six descriptive types that are widely used by mussel biologists, although he notes overlap may occur in how they are used. These include cobble-gravel, gravel, gravel-sand, sand, sand-mud, and mud. Warren (1991) provides more-specific definitions for each descriptive category in his article, and readers are encouraged to consult this original source for a more-detailed

TABLE 37-15
Distribution of Thin-, Medium-, and Thick-walled Shells by Stratigraphic Unit

Unit	Thin	Thin/Medium	Medium	Medium/thick	Thick	Totals
Valley Floor:						
IIIb/c/FILL	1	4	6		3	14
IIIc	12		30	2	15	59
IIIb/c	4	4	14		1	23
IIIb	9	17	42	3	3	74
IIa/b	2	15	10	1	1	29
IIIa	52	52	115	8	4	231
III	5	7	21			33
II/IIIa	63	24	42		1	130
II/III			1			1
II	33	18	61	4		116
Id/II	2	3	4	2		11
Isi-c/II	1		6			7
Id	1					1
Isi-c/Id	3	1	4			8
Isi-c	7	9	33			49
Isi/Isi-c	5	1	3			9
Icl/Isi-c	1					1
Isi/Icl/Isi-c	1		1			2
I			3			3
Icl			1			1
Isi/Icl	1					1
Isi	1					1
Igl/Isi	1					1
Igl	1					1
Valley Margin:						
IIIc	8	9	31	12	5	65
IIIc/POT	1		20			21
IIIb/c			7			7
Y/IIIc		4	2			6
Y/IIIb/c			1			1
IIIb		12	9	3		24
Y/IIIb			1			1
X/Y/IIIb			1			1
X/IIIb			4			4
X/Y			7			7
IIa/b			3	3		6
IIIa			11	2		13
II/IIIa		1				1
X/IIIa			3		2	5
X/II/IIIa		2				2
Y	6		1			7
X	6	11	19		2	38
X/II		3	2	2		7
II		1	2	1		4
Id/II			1			1
Unknown			1			1
Totals:	227	198	523	43	37	1,028

TABLE 37-16
Rankings of Environmental Characteristics for the Wilson-Leonard Taxa

	Water Body						Water Depth (in feet)															Current				Substrate						
	Large River	Medium River	Small River	Large Creek	Small Creek	Lake/Pond	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Swift	Moderate	Slow	Standing	Cobble-gravel	Gravel	Gravel-sand	Sand	Sand-mud	Mud
<i>Anodonta grandis</i>	0.5	0.5	0.5	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	1	0	0	0	0.5	1	1
<i>Arcidens confragosus</i>	1	1	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1	1	0	0	0.5	1	1	1
<i>Ambelma plicata</i>	0	0.5	1	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0.5	0.5	1	1	1	0.5	0.5
<i>Megaloniais nervosa</i>	1	0.5	0.5	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	0	1
<i>Quadrula pustulosa</i>	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	1	0	0.5	1	1	1	0.5	0.5
<i>Unio merus tetralasmus</i>	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
<i>Lampsilis teres</i>	0.5	0.5	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1	1	0	0	0	0	0	1
<i>Leptodea fragilis</i>	1	0.5	0.5	0.5	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	0.5	1	1	0	0.5	0.5	1	1	1
<i>Potamilus purpuratus</i>	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	0.5	0.5	0.5	1
<i>Taxolasma texasensis</i>	0	0	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

account of how this method was developed and is used.

The ranked habitat data are used for a “computational procedure for determining the habitat profile of a mussel assemblage” (Warren 1991:35). This can be done in a qualitative way in which the data are determined for each species present (as in Table 37-16) but with each species weighted equally. By multiplying each cell by the actual number of individuals of each species represented within a sample, the data can be quantified to reflect the significance of each species within that sample. These data can be turned into percentage values that indicate the numerical weight of each cell in relation to the total number of specimens in a sample. For example, if all the species represented in a sample are coded as “1” for a specific value (such as large creek), than that value would be 100%. Each value (or cell) is ranked independently, so the percentage reflects ranking within but not between cells. Once these data have been converted to percentage values, they can be used to compare against other habitat profiles.

Warren’s (1991) method is used here to help compare the habitat profiles indicated by three different cultural levels at the Wilson-Leonard site. It is used to sort out the various habitat indicators into a general picture of the aquatic conditions from which the mussels were collected to determine if there is any indication of change through time. As mentioned earlier, this habitat reconstruction is presented here to be used in general terms because of the use of reference data from outside Texas and because the Wilson-Leonard samples are relatively small. This reconstruction can be useful for corroboration by other data from the site, such as freshwater gastropods, vertebrates, and soil/hydrological indicators. It is important to note that the following discussion is based on the assumption that the mussels found at Wilson-Leonard came from Brushy Creek near the site.

The three temporally discrete levels selected for comparison are stratigraphic Unit II (dating ca. 9500-8700 B.P.), stratigraphic Unit IIIa (ca. 8700 to 6000-6500 B.P.), and stratigraphic Unit IIIc (roughly 4000-0 B.P.). Admittedly, these strata represent large blocks of time so habitat reconstructions will project only general conditions. These strata had the largest mussel shell samples, and in an effort to minimize any biases that might be imposed by small sample size, only these larger samples are used to develop habitat profiles. The raw data for each strata were calculated using the frequency data in Table 37-14 multiplied by the rank data presented in Table 37-16. The percentage values are used for comparison and are illustrated in graphic form.

The indications of water body type (Figure 37-1) for each stratigraphic unit show an interesting contrast between the earlier two strata and Unit IIIc. While a small river habitat is most pronounced for each stratum, the more-recent stratigraphic Unit IIIc suggests a shift toward a larger waterway. The occurrence of only one specimen of *Toxolasma texasensis* in this unit (see Table 37-14), which is generally

FIGURE 37-1. Comparison of water-body type rankings for Units II, IIIa, and IIIc.

restricted to shallow areas with little to no current, supports the decrease in such habitats that may be associated with a small creek or impounded water.

The evidence for water depth also suggests some differences between strata (Figure 37-2). The habitat profile generated from the Wilson-Leonard data suggests a trend toward deeper water conditions in more-recent times, although the continued presence of shallow water habitats would be expected. This trend, however, may be somewhat overemphasized in the profile data because it is caused by the higher proportional frequency of *Potamilus purpuratus* and the exclusive presence of *Megaloniaias nervosa* and *Quadrula pustulosa*, all of which have a wide range of water-depth tolerances and therefore, could also be supported in shallower water (see Table 37-14). But the increase in frequency of deeper-water-tolerant species in stratigraphic Unit IIIc, and the low frequency of *Toxolasma texasensis* which favors very shallow water, does suggest a possible increase in the maximum water depths in more recent times.

The indicators for current velocity for the three stratigraphic units under comparison show less clear distinctions between each sample (Figure 37-3). The data indicate a slow-moving current (1-24 cm per second), possibly with areas of standing water. The evidence for greater current velocity in the later strata is generally due to the wide tolerances of *Amblema plicata*, while the relatively high frequency of *Potamilus purpuratus* in Unit IIIc, which favors slow currents, probably more accurately reflects the conditions in Brushy Creek.

The last category under consideration, that of substrate composition, is strongly weighted toward soft, particularly

FIGURE 37-2. Comparison of water depth rankings for Units II, IIIa, and IIIc.

FIGURE 37-3. Comparison of current velocity for Units II, IIIa, and IIIc.

mud, substrates (Figure 37-4). Warren (1991:30) defines mud as consisting of silt and clay. The profile for stratigraphic Unit IIIc suggests the possibility that several substrates can be found in Brushy Creek, but no species intolerant of a mud substrate were found, leaving the possibility that only the mud substrate existed. The generalization that thick-walled species tend to avoid soft substrates coupled with

FIGURE 37-4. Comparison of substrate composition rankings for Units II, IIIa, and IIIc.

the low frequency of thick shell fragments (see Table 37-15) further supports a predominantly soft substrate for the aquatic habitat reflected in the Wilson-Leonard assemblage.

By combining the data from the four habitat categories, a general habitat reconstruction can be proposed for the aquatic environment from which the Wilson-Leonard mussel was procured, presumably that of Brushy Creek. The evidence suggests generally consistent conditions existed through time with a creek to small river-sized drainage with continuous flow, which had a slow current and a mud substrate. The comparison between three temporally differentiated strata suggests wetter conditions in more recent times (analogous with stratigraphic Unit IIIc), possibly resulting in a deeper and wider drainage. Neither current velocity nor substrate composition seemed to be altered significantly by these wetter conditions.

As an alternative interpretation given the limited catchment and ground-water source potential of Brushy Creek, the increased stream size indicated by the mussels in Unit IIIc could be the result of inhabitants having collected some of the recovered mussels from other, larger streams or from farther down Brushy Creek.

Mussels as a Food Resource

The mussel shell recovered from the Wilson-Leonard site is generally assumed to reflect the use of freshwater mussels for food, although mussel shell can be introduced by nonhuman factors such as by animals or birds or mixed with flooding debris. One bivalve fragment from stratigraphic

Unit IIIc (Lot 16C) was found by Neck to have two holes that may have been made by humans. Other than this example, none of the freshwater bivalve shells exhibits any evidence of modification for any purposes other than meat extraction. Freshwater mussels are generally thought to represent a supplementary protein resource, but the predictable availability may have made them an important expedient food source (Parmalee et al. 1972). In Texas, shellfish were most intensively used during the Late Archaic through Late Prehistoric periods when there may have been increasing dietary stresses imposed by a growing population density and a changing environment (Brown 1989). Freshwater mussels would have been a compatible resource for special task camps, such as plant processing, because they are relatively predictable in terms of location and seasonality, and they require only short periods of time for collection.

The mollusk paleoassemblage from the Wilson-Leonard site suggests that mussels were used as an intermittent resource but never in large quantities. The site has a relatively small sample of bivalve remains compared to many sites in the region (e.g., Anthony 1994; Brown 1987), particularly when considering the long time depth of the site. The aquatic habitat adjacent to the site probably never supported dense populations of the larger mussel species such as *Amblema plicata* or *Lampsilis teres*. The mussel populations near Wilson-Leonard may have been limited to moderate densities of a variety of species, with proportionally higher representations of smaller and/or younger individuals of those species able to grow larger in bigger waterways. But the use of this limited resource by the occupants of Wilson-Leonard suggests that it was considered an available resource. The higher frequency of shell remains in more-recent times parallels that noted for other sites, possibly suggesting that growing food stresses encouraged more-intensive utilization of marginal resources (e.g., Brown 1989).

A comparison of the frequency of shell in feature contexts against the frequency in nonfeature deposits reveals a slight clustering of shell in features. Of the total count of 1,294 mussel shells or shell fragments, 34% (n=441) were found in feature contexts, including the burned rock midden. This is significant if the total volume of deposits excavated is calculated, but the higher frequency in features may be due to the intensive recovery methods (i.e., water screening and flotation) that were used to process feature sediments. Comparison of the frequency of mussel shell between the Burned Rock Midden 1 and squares outside but adjacent to this feature again did not reveal major differences. Within Burned Rock Midden 1 (using Squares E20/S86-94), the range is between 3 and 5 specimens per lot while outside the feature (using Squares E20/S72-84) the range is between 1 and 8 specimens. The slightly higher numbers are from the squares at the margin of the feature, with Square E20/S84 with 8 specimens and Square E20/S82 with 6. While these frequency data do not conclusively support a clustering of shell along the burned rock midden edge, it may suggest

that this is a research question for future excavations of this type of feature. It would be important to determine if this clustering of shell along the midden edge is a pattern seen elsewhere and whether the mussel shell reflects a disposal context or a cooking context associated with the primary function of the burned rock feature.

The Wilson-Leonard samples provide little information on the processing and cooking methods used for the mussels. This is due primarily to the very fragmentary nature of this assemblage. Only one specimen, that of *Amblema plicata*, exhibits a broken posterior margin such as has been interpreted at other sites to indicate the opening of the shell to extract the meat (e.g., Neck 1994). The incidence of burned shell at Wilson-Leonard is very low (1.2%, n=16) which is comparable to other sites and probably reflects unintentional postconsumption burning (Anthony 1994).

Summary

The analysis of the freshwater mussel paleoassemblage from the Wilson-Leonard site has identified 12 taxa consistent with the aquatic habitat adjacent to the site. The species of unionids identified from the site sample (see Table 37-12) suggest these mussels were collected from a small but continuously flowing waterway with a slow current and a soft substrate. A comparison of habitat indicators between three samples ranging from Late Paleoindian to Late Prehistoric times suggests conditions may have been slightly wetter in the later periods resulting in a wider and deeper waterway.

Freshwater mussels appear to have been only a minor resource throughout the various occupations of the site, although they may have been utilized more intensively during later occupations. If conditions were wetter during later periods, as suggested by the habitat reconstructions, than some of this increased use may simply reflect the greater abundance of mussels in the immediate environment. The very fragmentary nature of the Wilson-Leonard assemblage limits statements concerning how the mussels were processed and cooked but the few indicators suggest it is consistent with practices detected at other Texas sites.

INTEGRATING RESULTS OF THE MOLLUSK STUDIES

by Leslie C. Shaw

The results of the three studies dealing with mollusk remains from the Wilson-Leonard site all support a similar trend in immediate habitat and climatic conditions. This similarity must remain on a general level because of the many cultural and natural factors that have affected the mollusk samples over the 11,000 years when occupations occurred at this site. Both gastropod and bivalve shells can be introduced into a cultural deposit by many avenues, ranging

from natural death to human deposition. In addition, the sampling and recovery methodologies used to collect mollusks from archeological contexts can have a significant affect on the composition of the overall assemblage.

Although certain species of gastropods are known to have been eaten by prehistoric inhabitants in Texas, there is no compelling evidence from Wilson-Leonard for their use as food. The gastropod shells recovered from the site were most likely the result of the use of the abandoned site by terrestrial species and the deposition of both terrestrial and aquatic species by water during periods of flooding and downslope wash. Humans could inadvertently introduce gastropods into the site by such means as bringing wetland vegetation or water to the site or through their introduction with other animals, such as in stomach contents of fish. The deep spring-dwelling *Phreatodrobia nugax nugax* identified by Theler could have been deposited in features as a result of humans collecting water directly from a spring source, but this species could as easily have been introduced during flooding. While it is difficult to distinguish between natural and cultural explanations at the Wilson-Leonard site, this situation raises a contextual problem that may be addressed at other sites through a carefully developed sampling strategy.

The high numbers of snail shells recovered from the site, particularly in association with rock features, suggests that the abandoned site offered particularly favorable conditions for certain species of gastropods. Such attractive conditions probably included vegetation, organic trash, higher moisture, and exposed limestone rocks which offered protected conditions for wintering and reproduction. The density of gastropods varies between strata, and this is well exemplified by the snail frequencies per level in Square E28/S78 (see Table 37-2). Mollusk remains are very low in number in stratigraphic Units Isi-c through Icl and there are indications that this may be due in part to preservation. The fact that the gastropod species represented in these lower levels are the same species that are found in such high numbers in upper levels also leaves open the possibility that at least some of the snails in the lower levels could be intrusive. These possibilities, therefore, limit the environmental statements that can be made using this information.

The numbers of mollusk remains increase in the overlapping stratigraphic Units Id through II (Levels 29 - 21 in Square E28/S78) but increase most dramatically in stratigraphic Unit III (see Table 37-2). The high density of gastropods suggests that the environs of the Wilson-Leonard site provided excellent habitat for a variety of species. Whether this was a normal distribution found all along Brushy Creek or was in response to the human modifications of the environment is not known. The Wilson-Leonard gastropod subassemblages highlight the need for archeologists to explore the taphonomy of snails in an archeological context in comparison to natural settings. Such comparative data will

improve the potential to distinguish between the natural occurrence or the cultural introduction of snails into archeological contexts.

The mussel shell remains from Wilson-Leonard probably reflect their use as food, although natural means of introduction cannot be excluded. Heavy flooding and movement of mussels by birds or mammals could introduce shells into a cultural deposit. The mussel shells were widely distributed across the site but were more numerous in the uppermost stratum (Unit IIIc). As with the gastropods, there is evidence that shell preservation varies between strata at the site, with particularly poor preservation in the lowest levels.

The indications of past environmental conditions from gastropod and mussel remains can be useful in identifying significant climatic change. Such data are best used in conjunction with other environmentally sensitive evidence to fully address paleoenvironments and the impacts humans had on these environments. The mollusk data evaluated here support a change in climatic conditions over the 11,000 years of human occupation. This change, in broad overview, includes a gradual shift from wetter conditions with riparian and marsh environments during the early Holocene (ca. 9,000-10,000 years ago) to drier conditions supporting prairie savanna vegetation following about 9,000 years ago. Another period of wetter conditions is evident between roughly 4,000 and 800 years ago (Unit IIIc), but the extensive marshes and woodlands present during the early Holocene are not indicated. This later period may have included periods of increased rainfall with higher flow in the streams in this escarpment area, but xeric vegetation probably continued to dominate the landscape.

The wetter conditions during the early period of occupation (roughly 10,000-9000 B.P.) are indicated by the presence of aquatic gastropods that favor marsh vegetation, such as *Gastrocopta armifera*. The terrestrial *Carychium mexicanum*, which favors vegetation along waterways, was found exclusively in these early deposits. By calculating standard deviations to evaluate the expected frequency of species from differing habitats, the aquatic and mesic woodland species were found in greater than expected numbers in the lower stratigraphic Units I and II (C. Britt Bousman, personal communication 1994).

The shift to drier conditions is indicated by the marked rise in frequency in open woodland to grassland species as seen in both Neck's and Theler's studies. There is also a marked drop in aquatic species. Caution is needed, however, in considering the significance of the decrease in aquatic species. The geomorphological indications of a decrease in overbank flooding following about 9,500 years ago (see Chapter 6) could have reduced the natural introduction of aquatic species into the site. The overall interpretation of drier conditions, however, is supported by the terrestrial species present and the high numbers of several of these species.

The move toward wetter conditions following about 4,000 years ago is suggested by the mollusk data. The wetter conditions are indicated most strongly by the mussel data. The frequency and diversity of mussel species suggest that higher water volume, seen as wider and deeper waterways, may have been present in Brushy Creek at this

time. The gastropod species do not indicate a return to marsh vegetation along the creek like that seen during the early Holocene, but Neck suggests an increase in wooded conditions along the waterway. The increase in such species as *Strobilops texasiana* and *Glyphyalinia umbilicata* suggests higher moisture levels in the immediate environment.

CHAPTER 38

DIATOM ANALYSIS

by Barbara Winsborough

INTRODUCTION

Diatoms are microscopic, single-celled algae with a silica cell wall. They are often preserved in Holocene marsh, stream, and lake deposits including sediments associated with archaeological sites in Texas and adjacent areas (Hohn 1975; Hohn and Hellerman 1961; Lohman 1935; Meltzer 1991; Patrick 1938; Winsborough 1988, 1995). Each diatom species has its own specific preferences and restrictions with regard to habitat, substrate, salinity, nutrient and pollution levels, current, light, depth, temperature, and moisture (Lowe 1974; Round 1981). Because of their individual environmental preferences and requirements, diatoms can provide information about the aquatic environment at the time the sediments were deposited. They are sensitive monitors of water quality, and changes in the composition of the assemblage are related to changes in climate, local hydrological regime, or land use. Sediment samples were collected from cultural features and profiles at the Wilson-Leonard site because of its proximity to stream and wetland habitats and because the possibility that diatoms preserved in the soils may contribute to paleoenvironmental reconstruction.

METHODS

Twenty-five samples were collected for diatom analysis from exposed profiles and from features during the 1992 TARL excavations (Table 38-1). A starting volume of about 1 cc of material was divided into two subsamples, designated A and B. Sample A was heated in hydrogen peroxide and then nitric acid, followed by washes with distilled water until clean of acid residue. Small, carbonate-rich nodules a few millimeters in diameter were picked out of the remaining subsample (Sample B) with forceps and processed in the same way as Sample A. The insoluble residues containing the diatom remains were mounted on glass

slides with Hyrax, a resin with a high refractive index. Slides were scanned at a magnification of 1500X, and every diatom cell was recorded.

RESULTS AND DISCUSSION

A few diatoms were recovered from some of the bulk samples, but their numbers are insufficient to allow any reliable paleoenvironmental interpretations. Diatoms were present in substantial numbers only in the carbonate-rich nodules extracted from two early Holocene samples, WL-92-214B and WL-92-228B. These samples came from the east wall of Square 20. The former was collected at the lower boundary of the Stiba soil, Level 25, stratigraphic Unit II/IIIa, (8800 B.P.); and sample WL-92-228B was collected in the lower portion of the Leanne soil, Levels 42-43, stratigraphic Unit Isi-c (9500-10,000 B.P.).

The kinds and numbers of diatoms found in these two samples are presented on Table 38-2. Eighteen species were found in a total count of 650 cells. Of these, 10 species were present in both samples with the following 4 being common to abundant in both samples (25-100+ cells): *Fragilaria capucina* var. *rumpens* (Kützing) Lange-Bertalot, *Gomphonema intricatum* var. *vibrio* (Ehrenberg) Cleve, *Cymbella cistula* (Ehrenberg) Kirchner, and *Gomphonema angustum* Agardh. Two species were found in low numbers in WL-92-214B, however they were common to abundant in WL-92-228B: *C. gaeumannii* Meister, and *G. subclavatum* var. *mexicanum* (Grunow) Patrick. These 6 species are especially useful in paleoenvironmental reconstruction because a diatom that is common in a sample is presumed to be living well within its range and can be considered as part of the diatom association that characterizes the habitat.

The two most common species, *Gomphonema intricatum* var. *vibrio* and *Fragilaria capucina* var. *rumpens*, are alkaliphilous species (occurring at a pH around 7 with

TABLE 38-1

Samples Analyzed for Diatom Content

Square	Level	Stratigraphic Unit	Micromorphology No.	Sample Description
20	11	IIIb	WL-92-206	A, B
51	24	IIIa		Feature 231, elevation 95.68 m
?	?	IIIa		Early Archaic feature, elevation 95.55 m
20	25	II/IIIa	WL-92-214	A, B; positive
51	26	II/IIIa		Feature 249, elevation 95.50 m
20	32, 33	II	WL-92-218	below gravel horizon
20	35, 36	II	WL-92-221	
20	39	Isi-c	WL-92-224	
20	40	Isi-c	WL-92-225	A, B
20	41	Isi-c	WL-92-226	A, B
20	42, 43	Isi-c	WL-92-227	
20	42, 43	Isi-c	WL-92-228	A, B; positive
20	44	Isi/Isi-c	WL-92-230	
20	46, 47	Isi/Isi-c	WL-92-231	A, B
20	47, 48	Icl	WL-92-232	A, B
20	48, 49	Icl	WL-92-233	
20	48, 49	Icl	WL-92-233	A, B
20	51	Icl	WL-92-235	A, B
20	51	Icl	WL-92-236	A, B
20	51	Icl	WL-92-236	top of column, left of column tags
20	57	Igl		40 cm below WL-92-236
35	46	Isi/Icl	WL-92-410	
20	?	Igl		35 cm above bedrock, 680 cm below surface
?	?	?		lower pit, clayey silt
?	?			middle lower gravel, abundant pyrite

best development over 7). They are tolerant of a range of conductivity from fresh water to slightly saline, such as to be expected from habitats that experience occasional drying conditions. Almost all the species are epiphytic (attached to other plants), a few of the diatoms found in small numbers are also found in mud (Krammer and Lange-Bertalot 1986, 1991; Lowe 1974; Patrick and Reimer 1966, 1975). This epiphytic life-form strategy is based on attachment to and movement along substrate surfaces where the diatoms can capitalize on nutrients and other resources adsorbed to surfaces or derived from higher aquatic plants (Bradbury 1975). *Fragilaria* is a littoral zone genus that prefers quiet environments where water currents are slowed by growth of aquatic macrophytes (Bradbury 1975). *F. capucina* has the added advantage of being tychoplanktonic, meaning able to live suspended in the water column

as well as on the bottom among the benthic diatoms (Denys 1990; Lowe 1974).

Except for *Cymbella gaeumannii*, which was somewhat common in both samples, the assemblage consists of species typically found in circumneutral to alkaline slow-flowing streams, shallow lakes, and ponds. These species can be found in spring-fed streams and ponds in Travis County today (Christensen 1978; Winemiller and Winsborough 1990; Winsborough 1995). *C. gaeumannii* prefers slightly acid, low nutrient, low electrolyte, marshy conditions and is found in Scandinavian alpine locations today (Krammer and Lange-Bertalot 1986). It is also common in lake sediments of some northern Great Lakes states. For example, in Dunnigan Lake, a shallow seepage lake with one of the lowest alkalinity values in Minnesota, *C. gaeumannii* prefers low total alkalinity and reflects a diatom

TABLE 38-2
Diatom Abundance in Sediments from the Wilson-Leonard Site

	WL-92-214B	WL-92-228B	Totals
<i>Achnanthes minutissima</i> Kützing	6		6
<i>Cyclotella meneghiniana</i> Kützing		1	1
<i>Cymbella cistula</i> (Ehrenberg) Kirchner	27	32	59
<i>Cymbella gaeumannii</i> Meister	8	20	28
<i>Denticula elegans</i> Kützing	9	2	11
<i>Denticula kuetzingii</i> Grunow	11	4	15
<i>Epithemia argus</i> (Ehrenberg) Kützing		2	2
<i>Fragilaria capucina</i> var. <i>rumpens</i> (Kützing) Lange-Bertalot	99	55	154
<i>Fragilaria ulna</i> (Nitzsch) Lange-Bertalot	9		9
<i>Gomphonema affine</i> Kützing	15	4	19
<i>Gomphonema angustum</i> Agardh	33	39	72
<i>Gomphonema intricatum</i> var. <i>vibrio</i> (Ehrenberg) Cleve	102	82	188
<i>Gomphonema subclavatum</i> var. <i>mexicanum</i> (Grunow) Patrick	9	50	59
<i>Navicula cryptotenella</i> Lange-Bertalot		6	6
<i>Navicula radiosa</i> Kützing		4	4
<i>Navicula viridula</i> var. <i>linearis</i> Hustedt	4		4
<i>Nitzschia amphibia</i> Grunow		6	6
<i>Pinnularia viridis</i> (Nitzsch) Ehrenberg	2	5	7
Totals:	334	316	650

inferred pH that ranges from 6.4-6.8; and Denton Lake, Wisconsin, has a diatom inferred pH of 5.5-6.0 (Kingston et al. 1990). Alexander Wolfe (personal communication 1996) reports finding an assemblage similar to the one found at the Wilson Leonard site, including *C. gaeumannii*, in well-buffered alpine lakes in Bolivia. The presence of *C. gaeumannii* in the Wilson-Leonard material suggests that there was some slightly acidic water with a rather dilute solute load, such as found in a boggy, poorly drained area with oak detritus.

Estimates of diatom salinity ranges have been calculated for nine of the diatom species found at the Wilson-Leonard site, including four of the common species, using a data set that includes 111 lakes in British Columbia, Canada (Wilson et al. 1994). Optimal salt concentrations are in the range of 240-770 ppm, but the diatom species would be tolerant of seasonal salinity fluctuations as might be expected in shallow streams, ponds, and marshes. The water was well-aerated, low to moderate in nutrient concentration, had a neutral to slightly alkaline pH, and was not heavily polluted. With regard to paleotemperature interpretations, a shallow environment such as a marsh or pond is quick to heat up and cool down, and the diatoms are adapted to these temperature fluctuations. A somewhat colder climate than present today is indicated by the modern alpine distribution of *C. gaeumannii*. The absence of planktonic diatoms, which require abundant dissolved nutrients to maintain large populations in open waters (Kuhn

et al. 1981), suggests that the water was probably not very high in nutrients and/or too shallow to support such a population.

CONCLUSIONS

The upland habitats of the Wilson-Leonard site were generally too dry to support the growth of diatoms. Of the 25 samples examined, diatoms were present in substantial numbers in only 2, both early Holocene in age. Diatoms were concentrated within small, carbonate-rich nodules in the sediments. The carbonate nodules may have been part of the stream sediment load that was transported to the site with any associated diatoms during high water, or they may have been associated with colluvial deposits from nearby slopes. A third possibility is that the nodules may be pedogenic in origin and postdate diatom deposition. In any case, the diatoms are local species, and the paleoenvironmental observations relate to the site and its habitats at the time the sediments were deposited. The assemblage contains species characteristic of several habitats. Many of the diatoms are circumneutral to hardwater species found typically in shallow, marshy, vegetated ponds or streams, with slow-flowing and standing water. The diatoms indicate that the water was perennial, but may have fluctuated in depth and solute concentration over the annual cycle. Flood events would have transported these taxa to the site as overbank deposits. A few of the species

prefer damp, shady substrates such as boggy areas, seeps, and wet ledges. Thus, the diatomaceous material preserved in these deposits consists of species from all of the habi-

tats associated with the drainage, and, in this case, anywhere the occupants gathered water or exploited aquatic resources.

CHAPTER 39

ANALYSIS OF OSTRACODE REMAINS

by Marion J. Henry, Mervin Kontrovitz, and Jerry Marie Slack

INTRODUCTION

Ostracodes were used to interpret paleoenvironments associated with Late Pleistocene and Early Holocene Paleoindian occupations at the Wilson-Leonard site. Ostracodes are a distinct subclass of crustaceans, usually with two small calcitic valves, each 1-2 mm in length. They have a geologic range from Late Cambrian to modern and are useful for stratigraphic and paleoenvironmental interpretations (Van Morkhoven 1962).

Two distinct assemblages of ostracodes were recovered from the samples. One, not useful in this research, was composed of Cretaceous brackish and marine species reworked from the local Mesozoic sediments. The resulting high calcite content could well have been responsible for the preservation of the second assemblage, the relatively fragile latest Pleistocene and earliest Holocene freshwater forms. The subject of this study is the latter group, that which is contemporaneous with the Paleoindian archeological material (Figure 39-1).

MATERIALS AND METHODS

All sediment samples, contextual data, and estimates of age were provided by TARL. Roughly equal volumes of at least 25 cc (dry) of sediment from each sample were soaked in distilled water for about 24 hours, then gently washed over a U.S. Standard 200-mesh sieve. Residues were air dried and "picked" for ostracodes. All samples were picked using Olympus stereomicroscopes at 15X. This standard magnification is sufficient for the smallest species and even the earliest (smallest) molt stages. For study of individual shells, magnifications from 100X to several 1000X with a scanning electron microscope were used. No detergents or phosphate products were used at any stage of the preparation because they could damage or destroy shells, especially delicate freshwater forms (Kontrovitz et al. 1991).

Environmental interpretations were based on the occurrence of species as reported in the literature on freshwater Ostracoda (Delorme 1970a, 1970b, 1971a, 1971b, 1978; Delorme and Zoltai 1984; Furtos 1933; Hoff 1942; Kitchell and Clark 1979; Staplin 1963a, 1963b; Westgate et al. 1987).

RESULTS

Twelve species of freshwater ostracodes were recovered from eight sediment samples collected from stratigraphic Unit I (Table 39-1). Most of the species are well-known freshwater forms (see Figure 39-1). All water depth and temperature interpretations were approximations based upon modern occurrences of the species (see references cited).

The deepest ostracode sample, designated Ostracode Sample 1 (<12,000 B.P.), was collected from Unit Igl (ca. 70 cm below upper contact at 92.1-92.00 m); it had 4 species represented by 24 specimens (Table 39-2). They were *Candona elliptica* Furtos, 1933, *Candona* sp. cf. *C. marengoensis* Klie, 1931, *Candona punctata* Furtos, 1933, and *Candona* sp. cf. *C. subtriangulata* Benson and McDonald, 1963. These forms prefer a habitat of permanent alkaline water and imply a maximum depth of about 3 m. The maximum water temperature was probably about 19°C (Table 39-3).

Ostracode Sample 2 (ca. 12,000 to 11,500 B.P.), was collected from the upper portion of Igl (ca. 92.84 m). It also had four species, represented by nine specimens. *Candona lactea* Baird, 1850, *Candona* sp. cf. *C. marengoensis*, *Candona punctata*, and *Cyclocypris* sp. were present. These indicate a permanent, alkaline water body with a maximum water depth of approximately 3 m. The maximum water temperature was about 20°C.

The next higher sample (Ostracode Sample 3; ca. 11,500 to 11,000 B.P.) was collected from the base of Unit Icl in the Icl/Isi transition (93.21 to 93.16 m). There were 26 specimens representing 6 species, namely, *Candona* sp. cf. *C. caudata*

FIGURE 39-1. Scanning electron photomicrographs (54X) of ostracodes from the Wilson Leonard site. (a-k) latest Pleistocene ostracodes; (l-n) Cretaceous ostracodes. (a) *Candona* sp. cf. *C. Caudata* Kaufmann, 1900, right valve damaged; (b) *Candona elliptica* Furtos, 1933, right valve; (c) *Candona lactea* Baird, 1850, right valve; (d) *Candona* sp. cf. *C. marengoensis* Klie, 1931, left valve; (e) *Candona punctata* Furtos, 1933, left valve; (f) *Candona* sp. cf. *C. subtriangulata* Benson and McDonald, 1963, left valve; (g) *Candona candida* (Muller, 1776), left valve, with debris; (h) *Cyclocypris ovum* (Jurine, 1820), left valve; (i) *Cyclocypris* sp., left valve; (j) *Limnocythere reticulata* Sharpe, 1897, right valve, damaged; (k) *Potamocypris smaragdina* (Varva 1891), left valve; (l) left valve, recrystallized; (m) right valve, recrystallized; (n) fragment, recrystallized.

TABLE 39-1
Provenience of Ostracode Samples

Sample No.	Stratigraphic Unit	Square	Level	Elevation (m)
8	lower Isi-c	20	42	94.22
7	lower Isi-c	20	43	94.10
6	upper Icl	E28/S78	34B	94.01-94.06
5	upper Icl	E28/S78	36A	93.86-93.91
4	lower Icl	E28/S78	40A	93.46-93.51
3	lower Icl/Isi	E28/S78	43A	93.16-93.21
2	upper Igl	43	56	92.84
1	Igl	Test Unit B	12, 13	92.00-92.10

TABLE 39-2
Ostracode Valve Count by Species

Sample No.	Ostracode Species												Totals
	<i>Candona</i> sp. cf. <i>C. marengoensis</i>	<i>Candona punctata</i>	<i>Candona elliptica</i>	<i>Cyclocypris ovum</i>	<i>Candona lactea</i>	<i>Candona</i> sp. cf. <i>C. caudata</i>	<i>Candona</i> sp. cf. <i>C. subtriangulata</i>	<i>Candona</i> sp. cf. <i>C. simpsoni</i>	<i>Potamocypris smaragdina</i>	<i>Limnocythere reticulata</i>	<i>Cyclocypris</i> sp.	<i>Candona candida</i>	
8			3		3								6
7					1	1							2
6	27	4	2	5	3	1	2	2	1	1		2	50
5	4	3				1			2				10
4	3	9	3	5	5		2				2		29
3	7	9		3	3	3					1		26
2	5	2			1						1		9
1	1	14	8				1						24

Kaufmann, 1900, *Candona lactea*, *Candona* sp. cf. *C. marengoensis*, *Candona punctata*, *Cyclocypris ovum* Jurine, 1820, and *Cyclocypris* sp. They indicate an alkaline, permanent water body with a maximum water depth of about 2 m and a maximum water temperature of about 22°C.

Ostracode Sample 4 (ca. 11,500 to 11,000 B.P.), collected from the lower portion of Unit Icl (93.51 to 93.46 m), had 29 specimens from the 7 species—*Candona elliptica*, *Candona lactea*, *Candona* sp. cf. *C. marengoensis*, *Candona punctata*, *Candona* sp. cf. *C. subtriangulata*, *Cyclocypris ovum*, and *Cyclocypris* sp. These, too, indicate an alkaline, permanent water body that was shallow (maximum of about 2 m). Maximum water temperature probably was about 19°C.

The next higher sample (Ostracode Sample 5; 93.91 to 93.86 m), collected from the upper portion of Icl, has an estimated age of 11,000 to 10,500 B.P. Ten specimens from 4 species are represented—*Candona* sp. cf. *C. caudata*, *Candona* sp. cf. *C. marengoensis*, *Candona punctata*, and *Potamocypris smaragdina* Varva, 1891. These indicate a maximum water temperature of about 21.5°C and a maximum

depth of approximately 2 m in an alkaline, permanent water body.

Ostracode Sample 6 was collected from the upper portion of Unit Icl at an elevation of 94.06 to 94.01 m, also with an estimated age of 11,000 to 10,500 B.P. It had 11 species and 50 specimens. They are *Candona candida* Muller, 1776, *Candona* sp. cf. *C. caudata*, *Candona elliptica*, *Candona lactea*, *Candona* sp. cf. *C. marengoensis*, *Candona punctata*, *Candona* sp. cf. *C. simpsoni* Sharpe, 1897, *Candona* sp. cf. *C. subtriangulata*, *Cyclocypris ovum*, *Limnocythere reticulata* Sharpe, 1897, and *Potamocypris smaragdina*. The species indicate a maximum water temperature of about 20.5°C and maximum water depth of about 3 m in an alkaline, permanent, eutrophic water body.

Sample 7 (94.16 m) was collected from the lower portion of the Leanne soil (Isi-c). It had two species, *Candona lactea* and *Candona* sp. cf. *C. caudata*, that indicate a maximum water temperature of 20°C and a maximum water depth of a few meters in an alkaline permanent water body.

The highest and youngest ostracode sample (8, ca. 10,000 to 9,500 B.P.), at about 94.25 m, was also collected from

TABLE 39-3
Approximate Maximum Water Depth and Temperature
for Ostracodes by Sample

Sample No.	Maximum Water Depth (m)	Maximum Water Temperature (°C)
8	2-3	19.5
7	few	20
6	3	20.5
5	2	21.5
4	2	19
3	2	22
2	3	20
1	3	19

lower Unit Isi-c deposits. There were six specimens of two species of ostracodes, *Candona elliptica* and *Candona lactea*, indicative of a maximum water temperature of about 19.5°C and a maximum water depth of perhaps 2-3 m in alkaline, permanent water.

CONCLUSIONS

Freshwater ostracodes of latest Pleistocene/earliest Holocene age may have been preserved in the Wilson-Leonard sediments because of the considerable calcium carbonate content derived from Cretaceous material in the area. All ostracode samples indicated an alkaline water body or

water bodies at each level where freshwater ostracodes were recovered. It could not be determined if there was one long-term ("permanent") body or if there were several in the area over the time span (ca. 2,000 years) represented by the samples. Whichever the case, the waters were highly productive and shallow, ranging in depth to about only 3 m. There was a "northern" aspect to the assemblages—some of these species currently live in the area of Illinois, Wisconsin, and Minnesota. This suggests that the climate in the site area at 12,000 to 10,000 B.P. was cooler than that of today.

Small samples of ostracodes yielded data relevant to interpreting the past environment of this locality. Pools of alkaline water here or upstream in the Brushy Creek or Spanish Oak Creek valleys are indicated. These appear to have been less than 2 or 3 m deep with water temperatures of between 19° and 22°C. Water temperature seems to have oscillated (Figure 39-2) and may reflect air temperatures, but this is not certain. Water temperatures must be used cautiously to interpret air temperatures since water conditions may be influenced by the influx of spring waters cooler or warmer than ambient air temperature. Ostracodes may be recoverable in deposits lacking other paleoenvironmental indicators, and the analysis of these remains can be used to infer the nature of water bodies and, to some extent, the climatic conditions under which those water bodies existed. Archeologists and others interested in paleoecology need to be alert to this class of evidence and explore its potentials.

FIGURE 39-2. Estimate of water temperatures based on ostracode remains from early stratigraphic units.

CHAPTER 40

CARBONIZED PLANT REMAINS

by J. Philip Dering

INTRODUCTION

Flotation samples and macroplant samples were submitted to the Paleoethnobotanical Laboratory at Texas A&M University for analysis. The “flotation samples” were processed from bulk unscreened sediments of a known volume and collected from specific contexts during excavation. The botanical materials from the flotation samples were separated later in the Paleoethnobotanical Laboratory. “Macroplant samples,” on the other hand, were collected by the excavators, either from in situ contexts or during the screening process, and bagged separately. Many of the macroplant samples were labeled “charcoal or “C-14” samples. In order to follow standard archeobotanical terminology, these samples are referred to in this study as macroplant samples.

The goals of the Wilson-Leonard macrobotanical study were as follows:

- (1) Inventory the archeological plant remains recovered from the Wilson-Leonard site.
- (2) Assess the condition of the archeobotanical record.
- (3) Address the following questions using the archeobotanical database:
 - a. what plant foraging activities are evidenced at the site, and how did these activities change through time?
 - b. what can be said regarding changes in local vegetation during the Holocene period?
 - c. how did land use change through time?
- (4) Present conclusions and recommendations for future research.

Each goal was entirely dependent on the quality of the data generated by the study, which in turn was dependent on the quality of plant preservation in the archeological sediments.

METHODS

Terminology

The plant remains analyzed in this study came from two types of samples. First, a total of 210 sediment samples (595.35 liters) collected during excavations at the Wilson-Leonard site was processed by flotation at the Texas Archeological Research Laboratory, The University of Texas at Austin. These samples are referred to as flotation samples. In addition, 460 individually collected plant samples were submitted for identification. These are referred to as macroplant samples. There were three types of macroplant samples examined in the analysis. The samples with ^{14}C numbers were point collected during the TARL excavations. Samples designated by “CH” were collected during the TxDOT excavations; some of these were point collected, and some were picked from screens. Finally, screen-collected samples were assigned only lot numbers.

Processing and Sorting

Macroplant Samples

Of the 461 macroplant samples examined in this study, 239 were from the TxDOT excavations and 222 were from the TARL excavations. Macroplant samples varied widely in character, from a mixture of charcoal flecks and sediment to single pieces of charred wood or nutshell. This is due to the fact that the carbonized material was collected primarily for the purpose of radiocarbon dating, and not for quantification of plant remains. Macroplant samples were examined for identification of the plant material only. A few of the samples consisted of several charcoal fragments of unsorted site matrix. Five charred fragments were selected and identified from these samples. No attempt was made to quantify the plant material within each sample, because

the primary constituent in many of the samples was sediment.

Flotation Samples

Samples were either scanned or fully sorted. Although 210 sediment samples were floated by personnel at TARL, visual examination suggested that only 76 had a potential to yield plant remains (Table 40-1). These 76 (214.1 liters) light fraction samples were submitted to Texas A&M University for analysis. Forty-six of these samples (120.65 liters) were completely sorted. The remaining 30 samples were scanned for carbonized plant remains.

Scan samples were spread across a large tray and quickly examined under 5X magnification for carbonized plant remains. In this manner, potentially productive samples could be selected and then subjected to the full-sort process. Fully sorted samples were passed through a series of four brass nested geological screens with mesh sizes ranging from 4 mm to 0.5 mm. Each size grade was scanned and sorted under a binocular dissecting microscope at 8X. All seed, fruit, and nut fragments from the light fractions were separated and counted.

Because of the poor preservation encountered at open sites, only the carbonized plant remains are considered to be potentially a part of the prehistoric record (Bryant 1989; Miksicek 1987). Most identifications were made using an epi-illuminated light microscope at low magnification (<75X) by comparing the archeological specimens to reference collections housed at Texas A&M University.

Identification Methods

Seeds and Nutshell Fragments

All seeds and nutshell fragments were identified using modern reference material housed at Texas A&M University and in the personal collection of the author. Each specimen was examined with a low-power binocular dissecting microscope and then identified when possible. Seed or nutshell fragments that were extensively altered by site formation processes were assigned to the general categories "seed fragment" or "nutshell."

Wood

Wood identifications were made to the most precise level possible by examining cross sections of the archeological material at 35-75X magnification. Often, however, identifications to the species level were not possible, and therefore, most were made to the genus level. It is also quite common for the wood of several tree species to be quite similar, and thus, certain groups of tree taxa are lumped into artificial categories called "wood types." Two oak wood types are used in this report, the "live oak wood type," which

separates live oak from the deciduous oaks, and "oak wood type," which refers to the deciduous oaks. Both of these oak wood types are in the genus *Quercus*. The wood of shrubs in the bean family is often difficult to separate into different taxa. For this reason, "arboreal legume wood type" (Fabaceae) is used, which includes wood of the genera *Acacia*, *Prosopis* (mesquite), and *Gleditsia* (honey locust). Other tree taxa are lumped into family designations, such as the willow family, which includes cottonwood (*Populus deltoides*) and willow (*Salix* sp.). Other family-level identifications include the rose family (Rosaceae) and the elm family (Ulmaceae). The rose family includes the hawthorne, wild plum, and cherry trees. The charred wood of these trees is difficult to distinguish below the family level. Often members of the elm family can be identified to the genus level, such as hackberry (*Celtis* spp.) and elm (*Ulmus* spp.). In cases where the sample is small or preservation is poor, these are placed in the more general family-level category.

Bulbs

The presence of relatively intact carbonized plant bulbs in the sample presented an added challenge to the identification process. Recent investigations have begun to push the methods utilized to identify root plants that have no external diagnostic features visible at low magnification (5-50X). This work has been pioneered by archeologists and archeobotanists studying plant use in regions where geophytic foods are most important. Seeds, flowers, and fruits, which have very distinctive characteristics, usually are related directly to the taxonomy and hence the classification of the plant. On the other hand, the qualities of geophytic roots or bulbs may in no way be related directly to the classification scheme of the plant. Therefore, the assemblage and replicative charring of all possible edible bulbs in the region was critical to the identification of charred bulb remains (Hather 1991:674).

First, the carbonized plant material was examined carefully in order to confirm that the specimens were indeed bulbs and not a similar-appearing geophytic structure such as a corm. The overall shape of the archeological material, which had been charred in a buried hearth, was variable due to the heat and pressure of the process. The outer layers were present in some of the samples and absent in others.

Once the material was identified as a true bulb, examples of edible species that produce bulbs and grow in the area of the site were collected—two species of wild onion, (*Allium canadense* var. *canadense*, *Allium drummondii*), false garlic (*Nothoscordum bivalve*), wild hyacinth (*Camassia scilloides*), and dog's tooth violet (*Erythronium albidum*). Each of these plants has an underground storage organ that stores nutrients for these perennials, and as such, they provide an excellent food source.

With Hather's (1991) caveat in mind, reference specimens of each species were obtained and were baked using

TABLE 40-1
Provenience of Flotation Samples

Sample No.	Feature	Square	Level	Unit	Volume (in liters)
1		E28/S78	20B	II	2
2*		E28/S78	23A	II	2
3		E28/S78	23	II	2
4*		E28/S78	43A	Isi	2
5		E28/S78	32A	Icl/Isi-c	2
6		E28/S78	24B	Id/II	2
7*		E28/S78	41B	Isi	2
8		E28/S78	22A	II	2
9		E28/S78	37A	Icl	2
10*		E28/S78	30B	Isi-c	2
11		E28/S78	36A	Icl	2
12*		E28/S78	29B	Isi-c	2
13*		E28/S78	35B	Ic	2
14		E28/S78	21A	II	2
15		E28/S78	27A	Isi-c/Id	2
16		E28/S78	28B	Isi-c/Id	2
17		E28/S78	26A	Id/II	2
18*		E28/S78	27B	Id	2
19		E28/S78	34B	Icl	2
20*		E28/S78	38A	Icl	2
21		E28/S78	39B	Isi/Ic	2
22		E28/S78	40A	Icl	2
23*		E28/S78	16A	IIIa	2
24*		E28/S78	17A	IIIa	2
25		E28/S78	17B	IIIa	2
26		E28/S78	14	IIIa/b	2
27		E28/S78	16B	IIIa	2
28		E28/S78	39A	Isi/Icl	2
29*		E28/S78	15A	IIIa/b	2
30*		E28/S78	8	IIIb/c	2
31*		E28/S78	11	IIIb	2
32		E28/S78	25A	Id/II	2
33		E28/S78	21B	II	2
34		E28/S78	19A	II/IIIa	2
35		E28/S78	30B	Isi-c	2
36		E28/S78	17A	IIIa	2
37*	F104	E22/S90	15-18	X	2
38	F155	E24/S76	22A&B	II	2
39*	F157	E26/S72	22A&B	II	2
40	F168	E20/S76	32A35B	Isi/Icl/Isi-c	5
41	F168	E20/S76	35B	Isi/Icl/Isi-c	2
42	F168	E20/S76	35B	Isi/Icl/Isi-c	2
43	F169	E20/S76	33B-34A	Isi/Isi-c	5
44	F169	E20/S78	30A-34A	Isi/Isi-c	5
45*	F169	E20/S78	30A-34A	Isi/Isi-c	5
46*	F169	E20/S76	33B-34A	Isi/Isi-c	5
47	F169	E20/S78	30A-34A	Isi/Isi-c	5
48*	F175	E26/S78	37A-38A	Isi/Icl	4
49	F175	E26/S76	37A-38A	Isi/Icl	5
50	F176	E28/S78	9-10	IIIb/c	4
51*	F181	E28/S78	18A	II/IIIa	2
52*	F181	E28/S78	20A	II/IIIa	2
53*	F181	E28/S78	17B	II/IIIa	2
54*	F181	E28/S78	18B	II/IIIa	2
55*	F181	E28/S78	19B	II/IIIa	2
56*	F181	E28/S78	18A	II/IIIa	2
57*	F181	E28/S78	19A	II/IIIa	1
58*	F181	E28/S78	18A	II/IIIa	2
59*	F181	E28/S78	17A	II/IIIa	2

*Submitted to Texas A&M University for analysis.

Table 40-1, *continued*

Sample No.	Feature	Square	Level	Unit	Volume (in liters)
60*	F181	E28/S78	17A	II/IIIa	2
61*		E28/S78	20A	II	2
62*		E28/S78	25B	Id/II	2
63*		E28/S78	19B	II	2
64*		E28/S78	18B	II/IIIa	2
65	F184	E28/S78	19B	II/IIIa	2
66*	F185	E28/S78	20B	II	2
67	F166	E2/N8	26B	I	0.15
68	F166	E2/N8	26A	I	0.15
69	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3
70	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3
71	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3
72	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	1.5
73	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2
74*	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	1.3
75	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2
76	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	4.4
77	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	5.2
78	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2.8
79	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3
80	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3.2
81	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2.55
82	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	1.6
83	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3.7
84	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2.65
85	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2.75
86	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3.8
87	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	1.7
88	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2.4
89	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	4
90	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	4.4
91	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3.2
92	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3
93*	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3
94*	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2.1
95	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2.4
96	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	1.8
97	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	1.8
98	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2.5
99	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3
100	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3
101	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	2.2
102*	F187	E28/S78	32B	Ic/Isi-c	5
103	Burial 2	E20/S74	31A	Isi/Icl/Isi-c	3.1
104		46	28A	II	1
105		39	38B	Isi-c/Id	5
106*	BRM 1	100	4	IIIc	1
107*	BRM 1	100	6	IIIc	1.2
108	BRM 1	100	8	IIIc	0.25
109*	BRM 1	100	8	IIIc	1
110*	BRM 1	100	10	Y	2
111	Burrow	12	39A	Isi/Isi-c	0.15
112*	203	19	9B	IIIb/c	2
113	204	20	11B	IIIb	2.25
114*	204	20	11B	IIIb	5
115	204	20	12B	IIIb	5
116*	204	20	12B	IIIb	5
117*	205	22	8	IIIb/c	2
118*	206	16	6B	IIIc	5
119*	206	16	6B	IIIc	5
120*	207	14	6B	IIIc	2

Table 40-1, *continued*

Sample No.	Feature	Square	Level	Unit	Volume (in liters)
121	208	17	7B	IIIb/c	4
122	210	22	9B	IIIb/c	1
123	211	17	8B	IIIb/c	3
124	212	37	13B	IIIb	1.5
125*	213	13	10B	IIIb	5
126	213	13	11B	IIIb	4
127*	213	12	12B	IIIa/b	5
128*	214	16	10B	IIIb	1.25
129		16	11B	IIIb	1.25
130*		16	12B	IIIb	1
131	215	20	16B	IIIa/b	5
132*	215	20	16B	IIIa/b	5
133	216	22	12B	IIIb	1
134	220	52	15B	IIIa/b	1
135*	222	37	16B	IIIa	2
136	224	12	20B	II/IIIa	5
137	226	46	20AB	II/IIIa	1
138	226	46	21B	II/IIIa	1
139	227	30	21B	II	1
140	227	30	22B	II	1
141	228	38	21B	IIIa	1
142	230	39	21B	IIIa	1
143*	231	52	23	IIIa	2
144	231	28	22	IIIa	1
145*	231	38	24	II/IIIa	4
146	231	51	24	IIIa	1.3
147	231	38	25B	II/IIIa	4
148	231	51	25	IIIa	2
149	231	38	26B	II/IIIa	5
150	231	38	26B	II/IIIa	5
151*	231	51	26	II/IIIa	5
152*	206	15	6B	IIIc	5
153*	208	16	7B	IIIb/c	3.5
154*	209	20	13B	IIIb	5
155*	213	12	11B	IIIa/b	2.2
156	213	12	12B	IIIa/b	5
157*	224	12	20B	II/IIIa	5
158*	231	38	27B	II	5
159	231	51	27B	II/IIIa	2
160	231/245	52	24	II/IIIa	1.4
161	231/245	52	24	II/IIIa	0.7
162*	231	52	24	II/IIIa	1.8
163	231/245	52	25B	II/IIIa	2.5
164*	233	20	25B	II/IIIa	5
165	233	20	26B	II/IIIa	5
166	233	20	26B	II/IIIa	5
167	234	30	30	Isi-c/II	1
168*	235	32	29B	Isi-c/II	1
169	236	33	30B/31B	II	5
170*	236	33	30B/31B	II	5
171	236	33	31B	Id/II	5
172	236	33	31B	Id/II	5
173	236	33	31B	Id/II	5
174	236	48	30B	II	3.6
175	236	48	31B	Id/II	5.4
176	236	48	31B	Id/II	5
177	239	34	26B	II	1
178*	239	34	27B	II	1.5
179	241	35	26B	II	0.75
180	242	20	29B	II	5

Table 40-1, *continued*

Sample No.	Feature	Square	Level	Unit	Volume (in liters)
181	242	20	29B	II	5
182*	245	28	24	IIIa	1.5
183	245	28	25	IIIa	1.75
184*	245	28	26	II/IIIa	3.25
185	246	34	32B	Id/II	5
186	246	34	32B	Id/II	5
187*	246	49	31B	II	3.5
188	246	34/49	32B	Id/II	5
189	246	34/49	32B	Id/II	5
190	246	34/49	32B	Id/II	5
191	248	28	29C	II/IIIa	1.25
192	248	44	28B	II/IIIa	1
193	249	51	27C	II/IIIa	1
194	249	51	28B	II/IIIa	4.25
195	252	46	42B&43B	Isi/Isi-c	3
196	252	55	43B	Isi/Isi-c	2
197*	252	55	43B	Isi/Isi-c	3
198*	255	59	42B	Isi-c	5
199	255	59	42B	Isi-c	5
200	256	28	42B	Isi-c	1
201	256*	28	42A	Isi-c	1
202	257	53	39B	Isi-c/Id	5
203	258	38	26C	II/IIIa	5
204	260	52	42B	Isi-c	5
205*	260	52	42B	Isi-c	5
206	261	20	54B	Ig/Isi/Icl	5
207	262	27	51B	Isi/Icl	5
208*	262	27	52B	Isi/Icl	5
209*	BRM 1	100	2	IIIc	2
210	236	33	30B&31B	II	5

an electric kiln in an oxygen-deficient environment for 10-15 minutes at 300/C. Each specimen then was compared to the archeological material, but most gross features were not diagnostic and external observations did not yield a positive identification. Except for *Allium canadense*, which is covered with a reticulate net of vascular tissue, none of the bulbs had external distinguishing features. The inner bulb scales were just as enigmatic to the unaided eye or the hand lens. Thus, the presence and location of distinctive features were sought at a slightly higher magnification.

A scanning electron microscope was utilized in order to take advantage of its great depth of field and high resolution at relatively low magnification. The idea was to scan one of the broken up specimens in order to identify whether distinctive features in the archeological material had survived charring and 8,000 years of site formation processes. Further, scanning at a sufficiently low magnification would mean that the same feature might be recognizable by an epi-illuminated light microscope.

Fragments of archeological specimens were attached to stubs using AQUADAG colloidal graphite. After drying for 24 hours in a desiccator, the samples were coated by pumping a vacuum chamber down to 60 millitor and coating the target for 8 minutes. A thick coating produced the best results.

Using the SEM, the material was examined at low magnification, which revealed that the inner (or upper) epidermis of the archeological material did indeed exhibit distinctive cell patterns. A survey of the literature indicated that bulbs exhibit distinct differences between upper and lower epidermal patterns and also that the most reliable parts of the bulb to examine for the cell patterns are the outer two or three scales (Hoffman 1933; Mann 1952; Park 1985). Although the only detailed descriptions found were for onions and a very few other commercially important species, the information helped determine what characteristics were necessary to begin assigning bulbs to taxonomic groups.

Having established that the archeological material had retained enough structural integrity to identify the shapes of epidermal cells, the next step was to examine the reference material to see if there was interspecific variation in the shapes of epidermal cells. The cells of the upper epidermis were examined, because these survived in the archeological material. In addition, the inner epidermis appeared to be a somewhat reliable aid in the identification of certain bulbs. In a monograph on the genus *Allium*, Owenby (1950) used the cell shapes of the inner epidermis as one of the main characteristics in her key to the species.

The results were encouraging. Different epidermal cell shapes were indeed recognized in the five modern species

that were examined. A key to each species, based on epidermal cell morphology, is presented in Table 40-2. SEM photos of the archeological samples were examined and compared to the modern reference material for identification.

RESULTS

A total of 19 plant taxa were identified in the macroplant (Table 40-3) and flotation samples (Table 40-4). Represented by at least 16 wood types or taxa, carbonized wood dominated the plant assemblage; a nutlet and nutshells were also identified for 2 of the wood taxa. The samples contained 3 taxa of grass seeds, and 1 bulb-producing geophyte. Wood and seed or nutshell remains of walnut and hackberry were identified in the samples.

Flotation Samples

Of the 76 flotation samples, 3 of the fully sorted samples produced identifiable fragments of carbonized plant remains. The other 73 samples had no identifiable remains. Six plant taxa, including 3 grasses and 3 wood types, were identified (see Table 40-4).

Juniper wood charcoal was the most common plant material in the flotation samples. Oak wood was recovered from a single sample (flotation sample 155). Flotation sample 154 contained the most material of all the samples, including the seeds of bristlegrass, panic grass, and paspalum grass. The poor recovery of plant remains is addressed below.

Macroplant Samples

Most of the macroplant samples contained 2-15 fragments of carbonized plant material; some contained hundreds of very tiny fragments or charcoal flecks. Plant parts recovered in these samples included wood, nut fragments, and bulbs and bulb fragments. Positive identifications were obtained in 228 of the samples. All macroplant samples, their proveniences, and identifications are presented in Table 40-5 and 40-6.

At least 16 plant taxa or wood types were identified in the macroplant samples analyzed from this site (see Table 40-3). Juniper wood and oak wood dominate the macroplant samples. Of the 207 samples in which a wood identification was determined, 73 contained oak and 83 contained juniper. The remaining 13 taxa or wood types accounted for only 51 of the samples in which a positive identification was obtained.

Plant food resources were not abundant in the site sediments. Carbonized bulbs and bulb fragments, however, were present in 12 samples from 3 different features. The excellent preservation of these whole carbonized bulbs contrasts with the paucity of seeds or fruits in the archeological sediments. Eight macroplant samples contained fragments of walnut shells. These came both from feature fill and general contexts. One charred hackberry nutlet (seed) was identified with the macroplant samples sent for identification. Uncharred hackberry nutlets (seeds) were present in many samples, and, along with the other uncharred botanical remains, were considered to be modern and were not analyzed in this study.

Plant Remains from Features

Macroplant samples from 63 features were examined, and 62 flotation samples from 31 features were either scanned or fully sorted. Although most of these samples contained very few plant remains, identifiable plant remains were found in samples from 29 features (Table 40-7).

Evidence of at least seven burned trees was recovered at the site. Macroplant samples of this charcoal were submitted for identification, and the results appear in Table 40-8. All seven trees were radiocarbon dated (see Chapter 25). Five of the burned trees (Features 164, 165, 167, 198, and 253) are from Late Paleoindian contexts, in the lower part of stratigraphic Unit II and the upper part of Unit I. Dates on these trees range from ca. 9240 to 9610 B.P.

Four of the trees were classed as live oak and the fifth (Feature 164) could not be identified because no anatomical structures could be identified. This material either was

TABLE 40-2

Key to the Potentially Economic Bulbs of the Study Area

Species	Description*
<i>Allium canadense</i> var. <i>canadense</i> <i>Allium drummondii</i>	Inner epidermal cells vertically elongate and sinuously contorted Inner epidermal cells vertically elongate, 4 to 5-sided, 100-125 micrometers long, not contorted
<i>Camassia scilloides</i>	Inner epidermal cells vertically elongate, 5 to 7-sided, mostly 6-sided, 50-60 micrometers long, not contorted
<i>Nothoscordum bivalve</i> <i>Erythronium albidum</i>	Inner epidermal cells irregularly shaped, horizontally or vertically elongate Inner epidermal cells irregularly shaped, horizontally or vertically elongate

*Based on the morphology of the inner epidermis.

TABLE 40-3

Plant Taxa Identified in the Macroplant Samples

Scientific Name	Common Name	Part	No. of Samples
Arboreal Legume	cf. Honey locust, mesquite, or acacia	Wood	3
<i>Bumelia lanuginosa</i>	Gum bumelia	Wood	1
<i>Camassia scilloides</i>	Wild hyacinth	Bulb	12
<i>Carya illinoensis</i>	Pecan	Wood	1
<i>Celtis</i> sp.	Hackberry	Wood	4
<i>Celtis</i> sp.	Hackberry	Nutlet	1
<i>Cornus drummondii</i>	Dogwood	Wood	1
Unknown hardwood	Unknown hardwood	Wood	15
<i>Juglans</i> sp.	Walnut	Wood	1
<i>Juglans</i> sp.	Walnut	Nutshell	8
<i>Juniperus</i> sp.	Juniper	Wood	83
Moraceae	Mulberry family	Wood	1
<i>Morus rubra</i>	Mulberry	Wood	1
<i>Quercus</i> sp.	Live Oak Wood Type	Wood	67
<i>Quercus</i> sp.	Oak Wood Type	Wood	6
Rosaceae	Rose Family	Wood	4
Salicaceae	Willow Family (e.g., willow or cottonwood)	Wood	8
Ulmaceae	Elm Family (Elm, hackberry)	Wood	10
<i>Ulmus</i> sp.	Elm	Wood	1
Indeterminable		Charcoal flecks	232
Total macroplant samples examined:			460

TABLE 40-4

Carbonized Remains from Wilson-Leonard Flotation Samples

Feature Number	Stratigraphic Unit	Flotation Sample No.	Common Name	Scientific Name	Part Identified	Count
209	IIIb	154	Juniper	<i>Juniperus</i> sp.	Wood	5
			Rose Family	Rosaceae	Wood	4
			Bristlegrass	<i>Setaria</i> sp.	Seed	2
			Panic Grass	<i>Panicum</i> sp.	Seed	4
			Paspalum Grass	<i>Paspalum</i> sp.	Seed	1
213	IIIb/a	155	Oak Wood Type	<i>Quercus</i> sp.	Wood	5
233	IIIa	164	Juniper	<i>Juniperus</i> sp.	Wood	7

wood charcoal that had been reduced to soot or soot-coated sediment. Two of the burned trees (Features 50 and 199) are from Middle Archaic contexts in stratigraphic Unit IIIb, dating to ca. 5500 B.P. These were live oak and red mulberry tree roots or trunks.

These may have burned in a natural fire while the site was not occupied, or they may have been intentionally burned by the people living there. These trees are an important indication of the nature of the overstory growing in the immediate vicinity of the site.

Fragments of at least 10 bulbs were identified in Feature 181. As described below in the section on the identification and use of wild hyacinth (*Camassia scilloides*), these bulbs were associated with fire-cracked rocks and heat-altered sediments. Five additional charcoal samples were examined from this feature, but none could be identified.

The most productive flotation sample came from Feature 209. Seeds of panic grass, bristlegrass, and paspalum

were identified. Rose family wood type and juniper wood also were found in the flotation sample. Elm family wood was identified in a single macroplant sample.

Twenty-one macroplant samples were examined from Feature 231. Juniper (*Juniperus*) was identified in three samples, live oak (*Quercus*) wood in two samples, and unknown hardwood wood in one sample.

Burned Rock Midden 1

This burned rock feature contained wood from several tree taxa and charred walnut shell fragments. The tree taxa included juniper, live oak, elm family, and arboreal legume. The variety of wood taxa indicates that the feature may have been reused many times. The presence of fire-cracked rocks and carbonized wood provides evidence that the feature may have been utilized at least in part to cook plant foods. Any detailed functional interpretation should tie

TABLE 40-5
Identification of Macroplant Samples from the TxDOT Excavations

Lot No.	Charcoal Sample No.	Unit	Square	Quad	Level	Feature	Taxa	Part
1 H		Y	E20/S100		8		Indeterminate	wood
10 B		IIIc	E20/S86		2		<i>Quercus</i> sp.; live oak type	wood
10B		IIIc	E20/S86		2		<i>Quercus</i> sp.; live oak type	wood
10 G		IIIc	E20/S86		7	BRM 1	Indeterminate	wood
10 H		IIIc	E20/S86		8		Indeterminate	wood
10 R		II/X	E20/S86		18		Indeterminate	wood
11 B		IIIc	E20/S84		2		Rosaceae	wood
11 C		IIIc	E20/S84		3		Indeterminate	wood
11 F		IIIc	E20/S84		6		Ulmaceae	wood
12 A		IIIc	E20/S82		1		<i>Juniperus</i> sp.	wood
12 B		IIIc	E20/S82		2	7	Ulmaceae	wood
12 C		IIIc	E20/S82		3		Indeterminate	wood
12 G		IIIb/c	E20/S82		7		<i>Ulmus</i> sp.	wood
14 A		IIIc	E20/S78		1		<i>Juniperus</i> sp.	wood
14 C		IIIc	E20/S78		3		<i>Juniperus</i> sp.	wood
14 D		IIIc	E20/S78		4		Indeterminate	
14 E		IIIc	E20/S78		5		Indeterminate	root
15 FF1 C		Isi/Icl	E20/S76	SE	32A		<i>Celtis</i> sp.	nutlet
16 E		IIIc	E20/S74		5		Indeterminate	wood
17 A		IIIc	E20/S72		1		<i>Juniperus</i> sp.	wood
19 H		IIIc	E22/S88		8	BRM 1	Ulmaceae	wood
20 F		IIIc	E22/S86		6	BRM 1	Indeterminate	wood
20 G		IIIc	E22/S86		7	BRM 1	Indeterminate	wood
20 I		IIIb/c	E22/S86		9		<i>Celtis</i> sp.	wood
20 I		IIIb/c	E22/S86		9		<i>Juglans</i> sp.	nutshell
21 F		IIIc	E22/S84		6		<i>Celtis</i> sp.	wood
3 A		IIIc	E20/S98		1		Indeterminate	wood
3 B		IIIc	E20/S98		2		Indeterminable hardwood	wood
35 AA1 A		II	E26/S72	NE	27A	165	<i>Quercus</i> sp.; live oak type	wood
36 E		IIIc	E40/S70		5		Indeterminate	wood
36 G		IIIb/c	E40/S70		7		<i>Juniperus</i> sp.	wood
36 L		IIIa/b	E40/S70		12		<i>Juniperus</i> sp.	wood
5 A		IIIc/POT	E20/S96		1		Rosaceae	wood
5 B		IIIc/POT	E20/S96		2	BRM 1	Arboreal legume	wood
50 H B		IIIc	E0/N8	NW	8	BRM 2	Indeterminate	wood
50 I A		IIIc	E0/N8	NE	9	BRM 2	Indeterminate	wood
51 K C		III	E2/N8	SE	11	BRM 2	<i>Quercus</i> sp.; live oak type	wood
6 A		IIIc/POT	E20/S94		1		<i>Juniperus</i> sp.	wood
8 A		IIIc	E20/S90		1		<i>Juniperus</i> sp.	wood
9 A		IIIc	E20/S88		1		<i>Juniperus</i> sp.	wood
32 FF2 B	CH-0506	Isi/Icl/Isi-c	E26/S78	NW	32B		Indeterminate	wood
32 FF2 D	CH-0507	Isi/Icl/Isi-c	E26/S78	SW	32B		Indeterminate	wood
32 KKLL1 B	CH-0510	Isi/Icl	E26/S78	NW	37-38A	175	Indeterminate	wood
32 Q1	CH-0514	IIIa	E26/S78		17A		Indeterminate	wood
32 Q2 AB	CH-0515	IIIa	E26/S78	NE, NW	17B		Indeterminate	wood
33 KK1LL1 D	CH-0578	Isi/Icl	E26/S76	SW	37A-38A	175	Indeterminate	wood
33 Q1	CH-0584	IIIa	E26/S76		17A		Indeterminate	wood
33 X2 A	CH-0600	II	E26/S76	NE	24B	162	Indeterminate	wood
33 X2 A	CH-0601	II	E26/S76	NE	24B	162	Indeterminate	wood
33 X2 A	CH-0602	II	E26/S76	NE	24B	162	Indeterminate	wood
33 Z2	CH-0609	II	E26/S76		26B	164	Indeterminate	wood

Table 40-5, continued

Lot No.	Charcoal Sample No.	Unit	Square	Quad	Level	Feature	Taxa	Part
34 HH1 ABCD	CH-0636	Icl/Isi-c	E26/S74	All	34A		Indeterminate	wood
34 JJ2 A	CH-0644	Icl	E26/S74	NE	36B		Indeterminate	wood
34 U1 D	CH-0653	II/IIIa	E26/S74	SW	21A		Indeterminate	wood
34 U2 B	CH-0654	II	E26/S74	NW	21B		Indeterminate	wood
31 KK2 C	CH-0672	Isi/Icl	E24/S72	SE	37B		Indeterminate	wood
35 AA1 A	CH-0704	II	E26/S72	NE	27A	165	<i>Quercus</i> sp.; live oak type	wood
35 AA1 A	CH-0705	II	E26/S72	NE	27A	165	<i>Quercus</i> sp.; live oak type	wood
35 AA1 A	CH-0706	II	E26/S72	NE	27A	165	<i>Quercus</i> sp.; live oak type	wood
35 AA1 D	CH-0707	II	E26/S72	SW	27A	165	<i>Quercus</i> sp.; live oak type	wood
35 AA1&2	CH-0708	II	E26/S72		27A&B	165	<i>Quercus</i> sp.; live oak type	wood
35 AA2 A	CH-0709	II	E26/S72	NE	27B	165	<i>Quercus</i> sp.; live oak type	wood
35 AA2 A	CH-0710	II	E26/S72	NE	27B	165	Indeterminate	wood
35 AA2 BCD	CH-0711	II	E26/S72	NW, SE, SW	27B		<i>Quercus</i> sp.; live oak type	wood
35 BB1 A	CH-0712	II	E26/S72	NE	28A	165	Indeterminate	wood
35 BB2 A	CH-0713	Isi-c/II	E26/S72	NE	28B	165	<i>Quercus</i> sp.; live oak type	wood
35 CC1 A	CH-0716	Isi-c/II	E26/S72	NE	29A	165	Indeterminate	wood
35 CC1 A	CH-0717	Isi-c/II	E26/S72	NE	29A	165	Indeterminate	wood
35 CC1 A	CH-0718	Isi-c/II	E26/S72	NE	29A	165	Indeterminate	wood
35 OO1 D	CH-0735	Igl/Isi	E26/S72	SW	41A		Indeterminate	wood
35 S2 C	CH-0737	II/IIIa	E26/S72	SE	19B		<i>Quercus</i> sp.; live oak type	wood
35 U1	CH-0738	II/IIIa	E26/S72		21A	146	Indeterminate	wood
35 V1 A	CH-0740	II	E26/S72	NE	22A	157	Indeterminate	wood
35 V1 D	CH-0741	II	E26/S72	SW	22A		Indeterminate	wood
35 V2 A	CH-0742	II	E26/S72	NE	22B	157	Indeterminate	wood
35 V2 C	CH-0743	II	E26/S72	SE	22B	157	Indeterminate	wood
35 Z2 A	CH-0761	II	E26/S72	NE	26B	165	<i>Quercus</i> sp.; live oak type	wood
35 Z2 A	CH-0762	II	E26/S72	NE	26B	165	<i>Quercus</i> sp.; live oak type	wood
36 B	CH-0764	IIIc	E40/S70		2		Indeterminate	
36 K	CH-0769	IIIb	E40/S70		11		Indeterminate	wood
36 Z	CH-0773	I	E40/S70		26		Indeterminate	wood
36 Z	CH-0774	I	E40/S70		26		<i>Juniperus</i> sp.	wood
37 C C	CH-0790	IIIc	E28/S78	SE	3		<i>Quercus</i> sp.; live oak type	wood
37 DD1 D	CH-0801	Isi-c	E28/S78	SW	30A	193	Indeterminate	
37 FF2GG1 A	CH-0820	Isi-c	E28/S78	NE	32B-33A	187	Indeterminate	wood
37 H C	CH-0826	IIIb/c	E28/S78	SE	8		<i>Quercus</i> sp.; live oak type	wood
37 I A	CH-0831	IIIb/c	E28/S78	NE	9		Indeterminate	wood
37 I B	CH-0832	IIIb/c	E28/S78	NW	9		<i>Quercus</i> sp.; live oak type	wood
37 I B	CH-0833	IIIb/c	E28/S78	NW	9		<i>Quercus</i> sp.; live oak type	wood
37 J A	CH-0840	IIIb/c	E28/S78	NE	10		Indeterminate	wood
37 K C	CH-0843	IIIb	E28/S78	SE	11		Indeterminate	wood
37 K D	CH-0844	IIIb	E28/S78	SW	11		Indeterminate	wood
37 L C	CH-0846	IIIb	E28/S78	SE	12		Indeterminate	wood
37 O2 A	CH-0859	IIIa/b	E28/S78	NE	15B		Indeterminate	
37 P1 C	CH-0865	II/IIIa	E28/S78	SE	16A	181	Indeterminate	wood
37 Q1 A	CH-0870	II/IIIa	E28/S78	NE	17A	181	Indeterminate	wood
37 Q1 B	CH-0872	IIIa	E28/S78	NW	17A		Indeterminate	
37 R1 C	CH-0874	IIIa	E28/S78	SE	18A		Indeterminate	
37 R1 C	CH-0875	IIIa	E28/S78	SE	18A		Indeterminate	
37 R1 D	CH-0876	IIIa	E28/S78	SW	18A	183	Indeterminate	wood
37 R2 A	CH-0877	II/IIIa	E28/S78	NE	18B	181	Indeterminate	wood
37 S1 A	CH-0878	II/IIIa	E28/S78	NE	19A	181	Indeterminate	wood
37 S2 A	CH-0880	II/IIIa	E28/S78	NE	19B	181	Indeterminate	wood
37 S2 C	CH-0881	II/IIIa	E28/S78	SE	19B		Indeterminate	

Table 40-5, continued

Lot No.	Charcoal Sample No.	Unit	Square	Quad	Level	Feature	Taxa	Part
37 T2 ABCD	CH-0882	II	E28/S78	All	20B		Indeterminate	wood
37 T1 D	CH-0883	II	E28/S78	SW	20A		Indeterminate	wood
37 T2 B	CH-0884	II	E28/S78	NW	20B		Indeterminate	wood
37 T2 B	CH-0885	II	E28/S78	NW	20B		Indeterminate	wood
37 T2 C	CH-0886	II	E28/S78	SE	20B		Indeterminate	
37 T2 C	CH-0887	II	E28/S78	SE	20B		Indeterminate	
50 AA1 B	CH-0914	I/II	E0/N8	NW	27A	198	<i>Quercus</i> sp.; live oak type	wood
50 BB2 B	CH-0919	I/II	E0/N8	NW	28B	198	<i>Quercus</i> sp.; live oak type	wood
50 CC2 B	CH-0921	I/II	E0/N8	NW	29B	198	<i>Quercus</i> sp.; live oak type	wood
50 DD B	CH-0922	I/II	E0/N8	NW	30	198	<i>Quercus</i> sp.; live oak type	wood
50 G B	CH-0923	IIIc	E0/N8	NW	7	BRM 2	Indeterminate	wood
50 H B	CH-0924	IIIc	E0/N8	NW	8	BRM 2	Indeterminate	wood
50 H D	CH-0925	IIIc	E0/N8	SW	8	BRM 2	<i>Camassia scilloides</i>	bulb
50 J A	CH-0928	III	E0/N8	NE	10	195	Indeterminate	wood
50 J BD	CH-0929	III	E0/N8	NW, SW	10	BRM 2	Indeterminate	wood
50 J C	CH-0930	III/IIIc	E0/N8	SE	10	194	Indeterminate	wood
50 K A	CH-0932	III	E0/N8	NE	11	195	<i>Quercus</i> sp.; live oak type	wood
50 K A	CH-0933	III	E0/N8	NE	11	195	<i>Quercus</i> sp.; live oak type	wood
50 K C	CH-0934	III	E0/N8	SE	11	195	<i>Juglans</i> sp.	wood
50 K C	CH-0935	III	E0/N8	SE	11	195	Indeterminate	wood
50 N A	CH-0944	III	E0/N8	NE	14		Indeterminate	wood
50 N C	CH-0945	III	E0/N8	SE	14		Indeterminate	wood
51 AA1 D	CH-0953	I/II	E2/N8	SW	27A	166	Indeterminate	wood
51 AA2BB1 D	CH-0954	I/II	E2/N8	SW	27B-28A	166	Indeterminate	wood
51 J D	CH-0957	IIIc	E2/N8	SW	10	BRM 2	Indeterminate	wood
51 K A	CH-0959	IIIc	E2/N8	NE	11	BRM 2	<i>Quercus</i> sp.; live oak type	wood
51 K B	CH-0960	IIIc	E2/N8	NW	11	BRM 2	<i>Quercus</i> sp.; live oak type	wood
51 K B	CH-0961	IIIc	E2/N8	NW	11	BRM 2	Ulmaceae	wood
51 M D	CH-0967	III	E2/N8	SW	13		Indeterminate	wood
51 M D	CH-0968	III	E2/N8	SW	13		Indeterminate	wood
51 N B	CH-0970	III	E2/N8	NW	14	196	Indeterminate	wood
51 N B	CH-0971	III	E2/N8	NW	14	196	Indeterminate	wood
51 N D	CH-0972	III	E2/N8	SW	14	196	Indeterminate	wood
51 N D	CH-0973	III	E2/N8	SW	14	196	Indeterminate	wood
51 Y D	CH-0977	I/II	E2/N8	SW	25	166	Indeterminate	wood
51 Z2 B	CH-0987	I/II	E2/N8	NW	26B		Indeterminate	wood
51 Z2 D	CH-0989	I/II	E2/N8	SW	26B	166	Indeterminate	wood
6 K	CH-0993	X/Y/IIIb	E20/S94		11	4	Indeterminate	wood
7 K	CH-0995	Y	E20/S92		11		<i>Quercus</i> sp.; live oak type	wood
7 K	CH-0996	Y	E20/S92		11		<i>Quercus</i> sp.; live oak type	wood
8 E	CH-0997	IIIc	E20/S90		5	BRM 1	Indeterminate	
8 J	CH-0998	X/Y/IIIb	E20/S90		10	8	<i>Camassia scilloides</i>	bulb
8 L	CH-0999	X/Y	E20/S90		12		Indeterminate	wood
8 M	CH-1000	X/Y	E20/S90		13		Indeterminate	wood
8 P	CH-1001	X	E20/S90		16	17	Arboreal legume	wood
8 P	CH-1002	X	E20/S90		16	17	Arboreal legume	wood
9 F	CH-1004	IIIc	E20/S88		6	BRM 1	Ulmaceae	wood
9 I	CH-1005	Y/IIIc	E20/S88		9	BRM 1	Indeterminate	wood
9 L	CH-1006	X/Y/IIIb	E20/S88		12		Indeterminate	wood
9 M	CH-1007	X/IIIb	E20/S88		13		Indeterminate	wood
9 N	CH-1008	X/Y/IIIb	E20/S88		14	12	Indeterminate	wood
9 N	CH-1009	X/Y/IIIb	E20/S88		14	12	Indeterminate	wood

Table 40-5, continued

Lot No.	Charcoal Sample No.	Unit	Square	Quad	Level	Feature	Taxa	Part
Trench 1	CH-1013	Unknown	Trench 1				<i>Quercus</i> sp.; live oak type	wood
10 D	CH-1015	IIIc	E20/S86		4		<i>Cornus drummondii</i>	wood
10 E	CH-1016	IIIc	E20/S86		5		Moraceae	wood
10 F	CH-1017	IIIc	E20/S86		6		<i>Quercus</i> sp.; live oak type	wood
10 I	CH-1018	IIIb/c	E20/S86		9		Indeterminate	wood
10 I	CH-1019	IIIb/c	E20/S86		9		Indeterminate	wood
10 S	CH-1022	X/II	E20/S86		19		Indeterminate	wood
11 E	CH-1024	IIIc	E20/S84		5	10	<i>Celtis</i> sp.	wood
11 J	CH-1025	IIIb/c	E20/S84		10		Indeterminate	wood
11 M	CH-1027	IIIb	E20/S84		13		<i>Quercus</i> sp.; live oak type	wood
11 P	CH-1028	IIIa	E20/S84		16		Indeterminate	wood
12 G	CH-1032	IIIb/c	E20/S82		7		Salicaceae	wood
12 I	CH-1033	IIIb/c	E20/S82		9		Salicaceae	wood
13 E	CH-1040	IIIc	E20/S80		5		<i>Bumelia lanuginosa</i>	wood
14 D	CH-1041	IIIc	E20/S78		4		<i>Quercus</i> sp.; live oak type	wood
14 DDHH1 B	CH-1043	Isi/Isi-c	E20/S78	NW	30-34A	169	Indeterminate	wood
14 I1	CH-1050	IIIb/c	E20/S78		9A		<i>Celtis</i> sp.	wood
14 I2	CH-1051	IIIb/c	E20/S78		9B		Ulmaceae	wood
14 L1	CH-1053	IIIa/IIIb	E20/S78		12A	50	<i>Quercus</i> sp.; live oak type	wood
14 L1	CH-1054	IIIa/IIIb	E20/S78		12A	50	<i>Quercus</i> sp.; live oak type	wood
14 L1	CH-1055	IIIa/IIIb	E20/S78		12A	50	Indeterminate	wood
14 L2	CH-1056	IIIa/IIIb	E20/S78		12B	50	Indeterminate	wood
15 EE1 AB	CH-1060	Isi/Icl/Isi-c	E20/S76	NE, NW	31A	168	Indeterminate	wood
15 K2	CH-1069	IIIb	E20/S76		11B		<i>Quercus</i> sp.; live oak type	wood
16 AA2	CH-1072	Isi-c	E20/S74		27B	72	Indeterminate	wood
16 BB2 A	CH-1073	Isi-c	E20/S74	NE	28B	73	Indeterminate	wood
16 BB1	CH-1074	Isi-c	E20/S74		28A		Indeterminate	wood
16 C	CH-1075	IIIc	E20/S74		3		<i>Quercus</i> sp.; live oak type	wood
16 CC2 A	CH-1076	Isi-c	E20/S74	NE	29B	73	Indeterminate	wood
16 DD1	CH-1077	Isi/Icl/Isi-c	E20/S74		30A		Indeterminate	wood
16 EE1 B	CH-1079	Isi/Icl/Isi-c	E20/S74	NW	31A	Burial 2	Indeterminate	wood
16 N	CH-1085	IIIb	E20/S74		14	199	<i>Morus rubra</i>	wood
16 S2	CH-1086	IIIa	E20/S74		19B		Indeterminate	wood
16 S2	CH-1087	IIIa	E20/S74		19B		Indeterminate	wood
16 S2	CH-1088	IIIa	E20/S74		19B		Indeterminate	wood
18 J	CH-1110	Y/IIIc	E22/S90		10	BRM 1	Indeterminate	wood
18 N	CH-1112	X	E22/S90		14		<i>Quercus</i> sp.; live oak type	wood
18 R	CH-1113	X	E22/S90		18	19	Indeterminate	wood
18 R	CH-1114	X	E22/S90		18	19	Indeterminate	wood
2 M	CH-1119	X	E22/S100		13		Indeterminate	wood
20 K	CH-1120	IIIb	E22/S86		11		Rosaceae	wood
20 S	CH-1124	X/II	E22/S86		19	33	Indeterminate	wood
22 F	CH-1129	IIIb/c	E22/S82		6		Indeterminate	wood
23 F	CH-1130	IIIc	E22/S80		6		<i>Quercus</i> sp.; live oak type	wood
23 J	CH-1131	IIIb	E22/S80		10		Indeterminate	wood
24 FF1 D	CH-1149	Isi/Icl/Isi-c	E22/S78	SW	32A		Indeterminate	
24 Y2 A	CH-1162	Isi-c/Id	E22/S78	NE	25B		Indeterminate	wood
24 Y2 B	CH-1163	Isi-c/Id	E22/S78	NW	25B		Indeterminate	wood
24 Z1 D	CH-1164	Isi-c/Id	E22/S78	SW	26A	163	Indeterminate	wood
24 Z2 ABCD	CH-1165	Isi-c/Id	E22/S78	All	26B		Indeterminate	wood
25 Q1 A	CH-1186	IIIa	E22/S76	NE	17A		Indeterminable hardwood	wood
25 S1	CH-1188	II/IIIa	E22/S76		19A		<i>Carya illinoensis</i>	wood

Table 40-5, continued

Lot No.	Charcoal Sample No.	Unit	Square	Quad	Level	Feature	Taxa	Part
26 DD1 D	CH-1214					167	Indeterminate	wood
28 EE2 D	CH-1217	Isi-c	E22/S74	SW	30A	167	<i>Quercus</i> sp.; live oak type	wood
28 Q2	CH-1295	Isi/Isi-c	E24/S78	SW	31B		Indeterminate	wood
28 R2	CH-1305	IIIa	E24/S78		17B		Indeterminate	wood
28 U1&2 C	CH-1306	IIIa	E24/S78		18B	131	Indeterminate	wood
28 W1 D	CH-1311	II	E24/S78	SE	21A&B		Indeterminate	wood
29 T2 C	CH-1318	II	E24/S78	SW	23A		<i>Juniperus</i> sp.	wood
29 U1 A	CH-1370	II/IIIa	E24/S76	SE	20B		Indeterminate	
34&35 V1	CH-1372	II	E24/S76	NE	21A		Indeterminate	
3 B	CH-1376	II/IIIa	E26/S74		22A	146	Indeterminate	wood
30 Q2	CH-1400	IIIc	E20/S98		2		Indeterminate	wood
30 Q2	CH-1431	IIIa	E24/S74		17B	130	Indeterminate	wood
30 Q2	CH-1432	IIIa	E24/S74		17B	130	Indeterminate	wood
30 U2 A	CH-1433	II/IIIa	E24/S74	NE	21B	150	Indeterminate	wood
30 U2 C	CH-1434	II	E24/S74	SE	21B		Indeterminate	wood
30 U2 C	CH-1435	II	E24/S74	SE	21B		Indeterminate	wood
31 HH1 A	CH-1471	Icl/Isi-c	E24/S72	NE	34A		Indeterminate	wood
31 KK2 A	CH-1472	Isi/Icl	E24/S72	NE	37B		Indeterminate	wood
35 Z2 A	CH-1473	II	E26/S72	NE	26B	165	<i>Quercus</i> sp.; live oak type	wood
35 Z2 A	CH-1474	II	E26/S72	NE	26B	165	Indeterminate	wood
35 Z2 A	CH-1475	II	E26/S72	NE	26B	165	Indeterminate	wood
35 Z2 A	CH-1476	II	E26/S72	NE	26B	165	Indeterminate	wood
50 K C	CH-1477	III	E0/N8	SE	11	BRM 2	<i>Quercus</i> sp.; live oak type	wood
37 R2 A	CH-1478	IIIa	E28/S78	NE	18B	181	<i>Camassia scilloides</i>	bulb
37 Q1 C	CH-1479	IIIa	E28/S78	SE	17A	181	<i>Camassia scilloides</i>	bulb
37 T1 B	CH-1480	II/IIIa	E28/S78	NW	20A	181	<i>Camassia scilloides</i>	bulb
24 CC1 B	CH-1481	Isi/Isi-c	E22/S78	NW	29A		<i>Juglans</i> sp.	nut shell
37 Q2 A	CH-1482	IIIa	E28/S78	NE	17B	181	<i>Camassia scilloides</i>	bulb
37 R1 B	CH-1483-1	IIIa	E28/S78	NW	18A	181	<i>Camassia scilloides</i> #1	bulb #1
37 R1 B	CH-1483-2	IIIa	E28/S78	NW	18A	181	<i>Camassia scilloides</i> #2	bulb #2
37 P2 C	CH-1484	IIIa	E28/S78	SE	16B	181	<i>Camassia scilloides</i>	bulb

this information to related archeological evidence before a final conclusion regarding function is reached.

Burned Rock Midden 2

Live oak wood was identified in six samples from this feature, walnut wood was identified in one sample, and elm family wood was found in another sample. At least one function of the feature, plant processing, may be inferred by the presence of a wild hyacinth (*Camassia scilloides*) bulb (CH-925).

Postdepositional Destructive Processes

The results presented above suggest that identifiable plant remains are relatively scarce in the Wilson-Leonard site deposits. Only 3 of the 210 flotation samples (totaling 595.35 liters) yielded identifiable remains and only 49% (228 of 460) of the macroplant samples could be identified. Occu-

pation at the Wilson-Leonard site extended over ten millennia, and human activities resulted in the deposition of tons of fire-cracked rocks and chipped stone debris numbering in the thousands. The length of time the site was used and the fact that the area occasionally was used intensely suggests that greater quantities of charred plant remains should have been present in the sediments. Their scarcity in the archeological record merits examination.

Two factors may have been responsible for the low frequency of plant remains. The first possibility is that very little plant material was charred at the site, but the presence of large thermally altered rock concentrations argues against this scenario. The second possibility is that postdepositional processes reduced the archeobotanical record (see Chapters 6 and 26).

Plant remains are transformed and reduced in size and quantity by a variety of postdepositional processes, including those of biological, chemical, and mechanical derivation (Bryant 1989). Archeological sites open to weathering and

TABLE 40-6
Identification of Macroplant Samples from the TARL Excavations

Lot	Sample	Unit	Feature	Unit	Level	Plant	Part
107		Isi		A	4	<i>Juniperus</i> sp.	wood
1115		IIIa	231	34	21	<i>Juniperus</i> sp.	wood
1159		IIIa	231	37	22	Indeterminate	wood
1199		II/IIIa		26	27	<i>Juniperus</i> sp.	wood
1206		IIIc	BRM 1	100	2	<i>Juglans</i> sp.	nutshell
1206		IIIc	BRM 1	100	2	<i>Quercus</i> sp.; live oak type	wood
124		Isi		A	6	Indeterminate	wood
129		IIIc	201	15	6A	<i>Juniperus</i> sp.	wood
1419		II		26	30	<i>Juniperus</i> sp.	wood
1422		IIIc	BRM 1	100	8	<i>Juglans nigra</i>	nutshell
1422		IIIc	BRM 1	100	8	<i>Juniperus</i> sp.	wood
1426		Isi/Isi-c		30	35	<i>Juniperus</i> sp.	wood
143		Igl/Isi		B	3	<i>Juniperus</i> sp.	wood
1505		Y/IIIc	BRM 1	100	9	<i>Juglans</i> sp.	nutshell
1561		II/IIIa		37	25	Salicaceae	wood
1648		II/IIIa	231	52	24	Indeterminate	wood
1668		Y	BRM 1	100	11	<i>Juniperus</i> sp.	wood
168		IIIc		16	3	<i>Juniperus</i> sp.	wood
1685		II		35	29	<i>Juniperus</i> sp.	wood
173		IIIa	231	38	21A	Unknown hardwood	wood
1805		UNKNOWN		34	*	<i>Juniperus</i> sp.	wood
1924		Id/II		35	34	<i>Juniperus</i> sp.	wood
1954		Isi-c		57	37	<i>Quercus</i> sp.; live oak type	wood
1957		II/IIIa	245	28	24	<i>Juniperus</i> sp.	wood
196		Igl		B	11	Unknown hardwood	wood
2001		Isi-c/Id		35	37	Indeterminate	wood
2016		Isi-c		26	41	Indeterminate	wood
202		IIIc		12	4	Salicaceae	wood
2029		Isi-c		57	39	Indeterminate	wood
2100		Isi/Icl/Isi-c		57	41	<i>Quercus</i> sp.; live oak type	wood
218		IIIb/c	201	20	8	Indeterminate	
2182		IIIa/b		14	12	Indeterminate	wood
226		IIIc	201	22	6	Indeterminate	wood
2315		II/IIIa	231	38	24	Indeterminate	wood
250		IIIb/c	201	20	8	Indeterminate	wood
2538		Isi/Icl	262	27	51B	Indeterminate	
2541		Isi-c	253	57	37-39	<i>Quercus</i> sp.; live oak type	wood
2620		Isi		57	54	<i>Quercus</i> sp.; live oak type	wood
2641		Isi		56	50	<i>Quercus</i> sp.; live oak type	wood
2658		Id/II		27	37	<i>Juniperus</i> sp.	wood
2659		Icl/Isi-c		35	44	<i>Quercus</i> sp.; live oak type	wood
267		IIIc	201	21	7A	<i>Quercus</i> sp.; live oak type	wood
274		IIIc		12	5	Indeterminate	wood
2758		Icl		39	49	<i>Juniperus</i> sp.	wood
2788		Isi/Icl		53	51	<i>Quercus</i> sp.; live oak type	wood
2877		IIIc	206	16	6B	<i>Quercus</i> sp.; live oak type	wood
327		IIIc		13	5	<i>Juniperus</i> sp.	wood
371		IIIb/c/FILL	201	18	9	<i>Juniperus</i> sp.	wood
385		IIIc		15	4B*	<i>Juniperus</i> sp.	wood
387		IIIc	201	15	5A	<i>Juniperus</i> sp.	wood
390		IIIc	201	17	6	<i>Juglans</i> sp.	nutshell
391		IIIc	201	16	5	<i>Juniperus</i> sp.	wood

Table 40-6, continued

Lot	Sample	Unit	Feature	Unit	Level	Plant	Part
396		IIIc	201	16	5	<i>Quercus</i> sp.; live oak type	wood
399		IIIb/c	205	22	8	<i>Juniperus</i> sp.	wood
412		IIIb/c		18	10	<i>Juniperus</i> sp.	wood
431		IIIb/c	201	21	8	<i>Juniperus</i> sp.	wood
454		IIIb/c	201	17	7A	<i>Quercus</i> sp.	wood
480		IIIb/c	201	16	7A	Indeterminate	wood
487		IIIb/c		19	10	Salicaceae	wood
488		IIIb/c		14	7	Rosaceae	wood
489		IIIb		20	13A	Indeterminate	wood
490		IIIb/c		13	7	Unknown hardwood	wood
503		IIIb/c		21	9	<i>Juniperus</i> sp.	wood
506		IIIb/c		14	8	<i>Juniperus</i> sp.	wood
508		IIIb		11	8	<i>Juniperus</i> sp.	wood
513		IIIb		19	11	<i>Juniperus</i> sp.	wood
515		IIIb		38	10	<i>Juniperus</i> sp.	wood
520		IIIb/c		37	10	<i>Juniperus</i> sp.	wood
521		IIIb/c		22	9A	<i>Quercus</i> sp.; oak type	wood
527		IIIb		38	11	<i>Juniperus</i> sp.	wood
532		IIIb		37	11	<i>Juniperus</i> sp.	wood
534		IIIb		11	9	Unknown hardwood	wood
535		IIIb		38	12A	<i>Juniperus</i> sp.	wood
538		IIIb		22	10A	<i>Juniperus</i> sp.	wood
544		IIIb		17	9	<i>Quercus</i> sp.; live oak type	wood
549		IIIb		15	11	<i>Quercus</i> sp.; live oak type	wood
552		IIIb		11	10	<i>Juniperus</i> sp.	wood
555		IIIb		21	11	<i>Juniperus</i> sp.	wood
557		IIIb		37	12A	<i>Juniperus</i> sp.	wood
560		IIIb	213	13	10B	<i>Juniperus</i> sp.	wood
561		IIIa/b		14	12	Ulmaceae	wood
563		IIIb		13	11A	<i>Juniperus</i> sp.	wood
566		IIIb/c	210	22	10B	<i>Juniperus</i> sp.	wood
574		IIIa/b		14	13	Salicaceae	wood
576		IIIb/c	208	17	7B	<i>Juniperus</i> sp.	wood
580		IIIb		16	11A	<i>Juniperus</i> sp.	wood
593		IIIa/b		38	15	<i>Juniperus</i> sp.	wood
594		IIIb		21	13	<i>Juniperus</i> sp.	wood
596		IIIa/b		15	13	Indeterminate	
596		IIIa/b		15	13	Salicaceae	wood
600		IIIa/b		15	12	<i>Juniperus</i> sp.	wood
603		IIIa		20	18	Unknown hardwood	wood
607		IIIb		18	12	<i>Juniperus</i> sp.	wood
609		IIIb	214	16	10B	<i>Juniperus</i> sp.	wood
610		IIIb		22	12A	Indeterminate	wood
611		IIIa/b		11	12	<i>Juniperus</i> sp.	wood
626		IIIb		19	12	<i>Juglans</i> sp.	nutshell
639		IIIa/b		38	16	<i>Juniperus</i> sp.	wood
640		IIIa/b		15	14	<i>Juglans</i> sp.	nut shell
649		IIIb		21	14	<i>Juniperus</i> sp.	wood
651		IIIb		16	12A	Indeterminate	wood
652		IIIb		17	11	Indeterminate	wood
660		IIIc	201	15	5A	Indeterminate	wood
662		IIIb		18	14	<i>Juniperus</i> sp.	wood
667		IIIa		38	17A	Unknown hardwood	wood

Table 40-5, continued

Lot	Sample	Unit	Feature	Unit	Level	Plant	Part
669		IIIb		16	12B	Indeterminate	
673		IIIa/b		37	14	Indeterminate	wood
675		IIIb		22	14	<i>Quercus</i> sp.; oak type	wood
676		IIIb		17	12	Indeterminate	wood
682		IIIa		33	16	<i>Juniperus</i> sp.	wood
683		IIIa		32	14	<i>Juniperus</i> sp.	wood
692		IIIa/b		37	15	<i>Juniperus</i> sp.	wood
697		IIIb		25	14	<i>Juniperus</i> sp.	wood
698		IIIb		27	15	<i>Juniperus</i> sp.	wood
709		IIIa/b		35	14	<i>Juniperus</i> sp.	wood
717		IIIa		32	16	<i>Juniperus</i> sp.	wood
722		IIIa/b		39	15A	<i>Juniperus</i> sp.	wood
757		IIIa/b	221	39	15C	Indeterminate	wood
765		IIIa		30	17	<i>Juniperus</i> sp.	wood
774		IIIa/b	220	52	15B	<i>Juniperus</i> sp.	wood
778		IIIa		37	16A	<i>Quercus</i> sp.; live oak type	wood
825		IIIa		37	17A	<i>Juniperus</i> sp.	wood
848		IIIa/b		25	19	<i>Juniperus</i> sp.	wood
852		IIIa		37	18	<i>Juniperus</i> sp.	wood
887		IIIa	231	27	21	<i>Juniperus</i> sp.	wood
893		IIIa	231	37	19	<i>Juniperus</i> sp.	wood
910		IIIa	231	52	21	Indeterminate	wood
920		IIIa		50	19	Indeterminate	wood
962		II		30	22A	<i>Juniperus</i> sp.	wood
964		II		47	24	<i>Juniperus</i> sp.	wood
524	C14-10	IIIb/c		22	9A	<i>Quercus</i> sp.; live oak type	wood
528	C14-11	IIIb	209	20	13B	Ulmaceae	wood
1369	C14-110	II/IIIa		27	27A	Indeterminate	wood
1370	C14-111	Isi-c/II	238	30	33B/34B	Indeterminate	wood
1517	C14-117	II		25	33	Indeterminate	wood
1519	C14-119	II		25	33	Indeterminate	wood
606	C14-12	IIIa/b	213	12	11B	Indeterminate	wood
1523	C14-121	II		25	33	Unknown hardwood	wood
1525	C14-123	Id/II	236	33	31B	Indeterminate	wood
1541	C14-127	II/IIIa		37	25	Indeterminate	wood
1553	C14-132	IIIa/II	245	44	25	Unknown hardwood	wood
1559	C14-133	Id/II		48	32	Indeterminate	wood
1564	C14-134	II		35	28	Indeterminate	wood
1584	C14-139	II/IIIa		27	29A	Indeterminate	wood
630	C14-14	IIIb		18	12	Unknown hardwood	wood
668	C14-15	IIIb	214	16	12B	<i>Juniperus</i> sp.	wood
553	C14-158	II/IIIa	181	52	24	<i>Camassia scilloides</i>	bulb
699	C14-16	IIIa	217	33	17B	<i>Quercus</i> sp.; live oak type	wood
1649	C14-161	II		35	29	Ulmaceae	wood
1673	C14-168	II	247	34	31C	Indeterminate	wood
1674	C14-169	II	246	34	31B	Indeterminate	wood
1680	C14-172	II	247	34	31C	Indeterminate	wood
1681	C14-173	II		34	31A	Indeterminate	wood
1690	C14-174	II	247	35	30B	Indeterminate	wood
1702	C14-177	II	248	52	28B	Indeterminate	wood
747	C14-18	IIIa		30	16	<i>Quercus</i> sp.; live oak type	wood
1718	C14-182	II	246	34	31B	Indeterminate	wood
1722	C14-184	II	246	34	32B	Indeterminate	wood

Table 40-6, continued

Lot	Sample	Unit	Feature	Unit	Level	Plant	Part
1732	C14-188	II		35	30A	Indeterminate	wood
769	C14-19	IIIa/b	221	39	15C	<i>Juniperus</i> sp.	wood
1751	C14-197	II/IIIa		28	27A	Indeterminate	wood
349	C14-2	IIIc		13	5	<i>Juniperus</i> sp.	wood
1615	C14-207	Isi/Isi-c		12	36	Indeterminate	wood
1632	C14-208	Isi/Isi-c		46	37	<i>Quercus</i> sp.; live oak type	wood
1635	C14-209	II/IIIa		28	27B	Indeterminate	wood
1638	C14-212	II	246	34	32B	Indeterminate	wood
1780	C14-219	II/IIIa	181	52	25	<i>Camassia scilloides</i>	bulb
792	C14-22	IIIa		35	15	Ulmaceae	wood
1808	C14-227	Id/II	246	34	32B	Indeterminate	wood
793	C14-23	IIIa/b	220	52	15B	Salicaceae	wood
1866	C14-236	II	248	52	29B	Indeterminate	wood
1867	C14-237	II	248	52	29B	<i>Quercus</i> sp.; live oak type	wood
1875	C14-238	II	248	52	29B	Unknown hardwood	wood
1910	C14-247	II		39	27	Unknown hardwood	wood
921	C14-25	IIIa	231	52	21	Indeterminate	wood
931	C14-26	IIIa	231	37	20	Indeterminate	wood
955	C14-28	IIIa	231	52	22	Indeterminate	wood
2030	C14-296	Isi-c	253	57	38	Indeterminate	wood
432	C14-3	IIIb/c		19	9A	<i>Quercus</i> sp.; live oak type	wood
2068	C14-309	Isi-c	253	57	39	<i>Quercus</i> sp.; live oak type	wood
1035	C14-32	IIIa	231	39	21A	Indeterminate	wood
2107	C14-320	II/IIIa		28	30A	Unknown hardwood	wood
1046	C14-33	IIIa	231	27	24	Indeterminate	wood
2196	C14-339	Isi-c	255	59	42B	Indeterminate	wood
2197	C14-340	Isi-c	255	59	42B	Indeterminate	wood
2198	C14-341	Isi-c	255	59	42B	Indeterminate	wood
1048	C14-35	II		30	25	<i>Quercus</i> sp.; oak type	wood
2210	C14-354	IIIa	181	51	24	<i>Camassia scilloides</i>	bulb
2214	C14-358	Isi-c/Id	257	53	38B	Indeterminate	wood
2215	C14-359	Isi-c/Id	257	53	38B	Indeterminate	wood
2219	C14-363	Isi-c/Id	257	53	39B	Indeterminate	wood
2220	C14-364	Isi-c/Id	257	53	39B	Indeterminate	wood
2221	C14-365	Isi-c/Id	257	53	39B	Indeterminate	wood
2223	C14-367	Isi-c/Id	257	53	39B	Indeterminate	wood
1053	C14-37	II/IIIa	231	35	22	Indeterminate	wood
2244	C14-388	Isi-c	260	39	42	Indeterminate	wood
2649	C14-408	Igl		20	68	<i>Quercus</i> sp.; oak type	wood
1122	C14-45	IIIa	231	52	23	Indeterminate	wood
1138	C14-48	IIIa	231	52	23	Indeterminate	wood
1145	C14-49	IIIa	231	38	21A	Indeterminate	wood
1165	C14-53	IIIa	231	53	23	Indeterminate	wood
1174	C14-59	IIIa	231	37	22	<i>Quercus</i> sp.; live oak type	wood
1188	C14-64	IIIa	231	51	22	Indeterminate	wood
1186	C14-65	II/IIIa	233	20	25B	Indeterminate	wood
1192	C14-66	IIIa	231	38	22	Indeterminate	wood
1193	C14-67	Isi-c/II	234	30	29	Indeterminate	wood
1194	C14-68	II/IIIa	233	20	26B	Indeterminate	wood
1202	C14-69	II/IIIa		25	27	<i>Quercus</i> sp.; oak type	wood
493	C14-7	IIIb/c		21	9	<i>Juniperus</i> sp.	wood
1233	C14-73	II/IIIa		35	23	Unknown hardwood	wood
1239	C14-74	Isi-c/II	235	32	28B	Indeterminate	wood

Table 40-6, *continued*

Lot	Sample	Unit	Feature	Unit	Level	Plant	Part
1242	C14-75	Isi-c/II	235	32	28B	Indeterminate	wood
1254	C14-77	Isi-c/II		12	29	Indeterminate	wood
1272	C14-79	Isi-c/II	235	32	29B	Indeterminate	wood
1302	C14-83	Isi-c/II	238	30	33B	<i>Quercus</i> sp.; live oak type	wood
1332	C14-85	IIIa	231	39	23	<i>Quercus</i> sp.; live oak type	wood
1333	C14-86	Isi-c/II	238	30	33B	Indeterminate	wood
1335	C14-88	II		25	30	Indeterminate	wood
1388	C14-91	Isi-c		12	33	Indeterminate	
1404	C14-94	II		33	30A	Indeterminate	wood
1430	C14-97	II	239	34	26B	Indeterminate	wood
1435	C14-98	II		25	33	<i>Quercus</i> sp.; live oak type	wood

located in warm temperate climates are poor depositional environments for the preservation of plant remains (Miksicek 1987:215). For this reason, only carbonized plants are considered to be a potential part of the archeological record (Minnis 1981).

The question remains, then, in an occupation that produced so many fire-cracked rocks, what reduced the size of the charred plant record? Carbonized plant remains are usually about 50-60% elemental carbon and as such are fairly inert to chemical or microbiological degradation. At the Wilson-Leonard site, the dominant processes reducing the size and condition of the macrobotanical record are most likely mechanical, both from physical sources and from biological sources.

Physical-mechanical degradation of plant materials is caused by a variety of factors. Along the eastern edge of the Edwards Plateau, long periods of drought followed by intense rains are common. Wet-dry cycles are a major contributor to the destruction of plant material. This can also take the form of soil or sediment movement, a process by which clays tend to shrink and swell, or sands move as a result of colluvial or aeolian forces (Bryant 1989).

Another major cause of degradation is the movement of organisms through the profile. This includes burrowing vertebrates as well as invertebrates. The activities of rodents tend to displace and damage plant remains. An even more damaging factor is the collective impact of earthworms that can move tons of sediment through their guts over time (see Chapter 29). This may have had a drastic impact on the smaller-sized botanical remains, especially seeds. With the exception of a very few seeds, the surviving carbonized plant material at the site was either wood, nut fragments, roots and tree trunks, or the comparatively large wild hyacinth bulbs. None of this material was recovered in the flotation samples. Rather, the macroplant samples that were collected in situ or off the field screen by the excavators provided the great majority of the data for this report. These relatively large-sized plant remains would be much more resistant to displacement through a soil profile, and they would be much less affected by earthworms.

Seeds, on the other hand, would tend to move through the soil profile, be consumed by arthropods or annelids, and suffer rapid mechanical degradation via both of these processes.

DISCUSSION

Seeds and Nut Fragments

Grass Seeds (Panicum, Paspalum, and Setaria)

Seeds were the rarest of the plant remains identified in the sediments. A total of seven grass seeds from three different species was identified in one flotation sample (Number 154). They represent three warm season grasses: panic grass (*Panicum*), paspalum grass (*Paspalum*), and bristlegrass (*Setaria*). These grasses set seeds in late summer/early fall. The seeds may have been carbonized by a fire that burned through the area, they may have resulted from food preparation or other activities of the inhabitants, or they may be the result of other uses of grass by the site occupants.

There are no historic or ethnographic references to the consumption of these genera by Native Americans residing in the region of Central Texas or East Texas. In other words, there is no ethnographic corroboration for human utilization of the grasses identified at the Wilson-Leonard site. There are, however, abundant references to the use of grasses as food in the genus *Panicum* by Native Americans throughout in arid southwestern North America (Yanovsky 1936:8-9). *Setaria leucopila* was identified in many contexts from Hinds Cave in Val Verde County (Dering 1979:37-39). These grasses flourish in open, well-drained soils of moderate depth. They would be indicative of an open canopy parkland environment, perhaps at the edge of the Brushy Creek flood plain. Other grasses, most commonly tanglehead (*Heteropogon contortus*), have been identified as constituents in woven grass mats and grass "sleeping nests" in archeological sites in the lower Pecos River region of Texas (Shafer and Bryant 1977:32, 42, 61).

TABLE 40-7
Plant Remains from Feature Contexts

Feature No.	Feature Type	Unit	Archeological Chronology	Sample (*dated samples)	Identification
4	large burned rock basin	X/Y	Early Archaic	CH-993	indeterminate wood
7	burned rock scatter	IIIc	Late Prehistoric or Late Archaic	lot 12B	Ulmaceae wood
8	burned rock accumulation	X/Y/IIIb	Early Archaic	CH-998*	<i>Camassia scilloides</i> bulb
10	small burned rock basin?	IIIc	Late Archaic	CH-1024*	<i>Celtis</i> sp. wood
12	large burned rock basin	X/Y/IIIb	Early Archaic	CH-1008, 1009	indeterminate wood
17	burned rock scatter	X	Early Archaic	CH-1001, 1002	Arboreal Legume wood
19	large burned rock basin	X	Early Archaic	CH-1113, 1114	indeterminate wood
33	burned rock cluster	X/II	Late Paleoindian or Early Archaic	CH-1124	indeterminate wood
50	burned tree	IIIa/IIIb	Middle Archaic	CH-1053, 1054* CH-1055, 1056	<i>Quercus</i> sp. (live oak type) wood indeterminate wood
72	burned root (part of F167)	Isi-c	Late Paleoindian	CH-1072	indeterminate wood
73	burned root (part of F167)	Isi/Icl/Isi-c	Late Paleoindian	CH-1073, 1076	indeterminate wood
130	large burned rock basin	IIIa	Early Archaic	CH-1431, 1432	indeterminate wood
131	large burned rock basin	IIIa	Early Archaic	CH-1306	indeterminate wood
146	large burned rock basin	II/IIIa	Early Archaic	CH-738, 1376	indeterminate wood
150	large burned rock basin	II/IIIa	Early Archaic	CH-1433	indeterminate wood
157	burned rock cluster	II	Late Paleoindian	CH-740*, 742, 743	indeterminate wood
162	burned sediment with a few burned rocks	II	Late Paleoindian	CH-600, 601, 602	indeterminate wood
163	burned rock cluster	Isi-c/Id	Late Paleoindian	CH-1164	indeterminate wood
164	burned tree	Isi-c/Id/II	Late Paleoindian	CH-609	indeterminate wood
165	burned tree	Isi-c/II	Late Paleoindian	CH-704, 705, 706, 707, 708, 709, 713, 761, 762, 1473; lot 35AA1A CH-710, 712, 716, 717, 718, 1474, 1475, 1476	<i>Quercus</i> sp. (live oak type) wood indeterminate wood
166	large burned rock basin	I/II?	Late Paleoindian	CH-953, 954, 977, 989	indeterminate wood
167	burned tree	Isi/Icl/Isi-c	Late Paleoindian	CH-1214 CH-1217*	indeterminate <i>Quercus</i> sp. (live oak type) wood
168	pit	Isi/Icl/Isi-c	Late Paleoindian	CH-1060	indeterminate wood
169	pit	Isi/Isi-c	Late Paleoindian	CH-1043	indeterminate wood
175	burrow	Isi/Icl	Early or Late Paleoindian	CH-510, 578	indeterminate wood
181	large burned rock basin	II/IIIa, IIIa	Early Archaic	C14-158, 219*, 354*; CH-1478*, 1479*, 1480*, 1482*, 1483-1*, 1483-2*, 1484* CH-865, 870, 877, 878, 880, CH14-64	<i>Camassia scilloides</i> bulbs indeterminate wood
183	burned rock cluster	II/IIIa	Early Archaic	CH-876	indeterminate wood
187	burned rock cluster	Isi-c	Late Paleoindian	CH-820	indeterminate wood
193	burned rock cluster	Isi-c	Late Paleoindian	CH-801	indeterminate
194	pit?	IIIb/c	Late or Middle Archaic	CH-930	indeterminate wood
196	burned plant?	III	Middle or Early Archaic	CH-970, 971, 972, 973	indeterminate wood
198	burned tree	I/II	Late Paleoindian	CH-914, 919, 921*, 922	<i>Quercus</i> sp. (live oak type) wood
199	burned tree	IIIb	Middle Archaic	CH-1085*	<i>Morus rubra</i> wood
201	burned rock accumulation	IIIc, IIIb/c	Late Archaic	Ch14-3; lot 267, 396, 454 lot 129, 371, 387, 391, 431 lot 390 lot 226, 250, 480, 660 lot 218	<i>Quercus</i> sp. (live oak type) wood <i>Juniperus</i> sp. wood <i>Juglans</i> sp. nutshell indeterminate wood indeterminate
205	burned rock scatter	IIIb/c	Late Archaic	lot 399	<i>Juniperus</i> sp. wood
206	burned rock cluster	IIIc	Late or Middle Archaic	lot 2877	<i>Quercus</i> sp. (live oak type) wood
208	burned rock cluster	IIIb/c	Late Archaic	lot 576	<i>Juniperus</i> sp. wood
209	burned sediment with a few burned rocks	IIIb	Middle Archaic	C14-11 flotation sample 154	Ulmaceae wood <i>Juniperus</i> sp. wood, Rosaceae wood, grass seeds (bristlegrass, panic grass, paspalum)
210	burned rock scatter	IIIb/c	Late or Middle Archaic	lot 566	<i>Juniperus</i> sp. wood

Table 40-7, *continued*

Feature No.	Feature Type	Unit	Archeological Chronology	Sample (*dated samples)	Identification
213	burned plant	IIIa/b	Middle or Early Archaic	C14-12 lot 560 flotation 155	indeterminate wood <i>Juniperus</i> sp. wood <i>Quercus</i> sp. (oak type) wood
214	burned rock cluster	IIIb	Middle Archaic	C14-15* lot 609	<i>Juniperus</i> sp. wood <i>Juniperus</i> sp. wood
217	burned rock scatter	IIIa	Early Archaic	C14-16	<i>Quercus</i> sp. (live oak type) wood
220	burned rock cluster	IIIa/b	Early Archaic	C14-23 lot 774	Salicaceae wood <i>Juniperus</i> sp. wood
221	burned sediment with a few burned rocks	IIIa/b	Early Archaic	C14-19 lot 757	<i>Juniperus</i> sp. wood indeterminate wood
231	burned rock accumulation	II/IIIa, IIIa	Early Archaic	C14-59, 85 lot 173 lot 887, 893, 1115 C14-25, 26, 28, 32, 33, 37, 45, 48, 49, 53, 66; lot 910, 1159, 1648, 2315	<i>Quercus</i> sp. (live oak type) wood unknown hardwood wood <i>Juniperus</i> sp. wood indeterminate wood
233	burned rock cluster and scatter	II/IIIa	Early Archaic	C14-65, 68 flotation 164	indeterminate wood <i>Juniperus</i> sp. wood
234	burned plant?	Isi-c/II	Late Paleoindian	C14-67	indeterminate wood
235	burned rock cluster	Isi-c/II	Late Paleoindian	C14-74, 75, 79	indeterminate wood
236	small burned rock basin	Id/II	Late Paleoindian	C14-123	indeterminate wood
238	burned plant?	Isi-c/II	Late Paleoindian	C14-83 C14-86, 111	<i>Quercus</i> sp. (live oak type) wood indeterminate wood
239	burned rock cluster	II	Late Paleoindian	C14-97	indeterminate wood
245	large burned rock basin	II/IIIa, IIIa	Early Archaic	C14-132 lot 1957	unknown hardwood wood <i>Juniperus</i> sp. wood
246	burned rock cluster	II	Late Paleoindian	C14-169, 182, 184, 212, 227	indeterminate wood
247	burned sediment with a few burned rocks	II	Late Paleoindian	C14-168, 172, 174	indeterminate wood
248	burned rock cluster	II	Late Paleoindian	C14-177, 236 C14-237 C14-238	indeterminate wood <i>Quercus</i> sp. (live oak type) wood unknown hardwood wood
253	burned tree	Isi-c	Late Paleoindian	C14-296 C14-309; lot 2541	indeterminate wood <i>Quercus</i> sp. (live oak type) wood
255	burned rock cluster	Isi-c	Late Paleoindian	C14-339, 340, 341	indeterminate wood
257	burned rock cluster	Isi-c	Late Paleoindian	C14-358, 359, 363, 364, 365, 367	indeterminate wood
260	burned rock cluster	Isi-c	Late Paleoindian	C14-388	indeterminate wood
262	bone scatter with burned rocks?	Isi/Icl	Early Paleoindian	lot 2538	indeterminate
BRM 1	burned rock midden	IIIc, IIIb/c, Y/IIIb/IIIc, Y/IIIc, Y	Early to Late Archaic	CH-1004 lot 5B lot 19H CH-997 CH-1005, 1110; lot 10G, 20F, 20G lot 1206 lot 1422 lot 1505 lot 1668	Ulmaceae wood Arboreal legume wood <i>Ulmus</i> sp. wood indeterminate indeterminate wood <i>Juglans</i> sp. nutshell & <i>Quercus</i> sp. (live oak type) wood <i>Juglans</i> sp. nutshell & <i>Juniperus</i> sp. wood <i>Juglans</i> sp. nutshell <i>Juniperus</i> sp. wood
BRM 2	burned rock midden	III, III/IIIc, IIIc	Middle through Late Archaic	CH-925* CH-934 CH-961 CH-932, 933, 959, 960, 1477; lot 51KC C14-923, 924, 928, 929, 935, 957; lot 50HB CH-1079	<i>Camassia scilloides</i> bulb <i>Juglans</i> sp. wood Ulmaceae wood <i>Quercus</i> sp. (live oak type) wood indeterminate wood
Burial 2	human burial	Isi/Icl/Isi-c	Late Paleoindian		indeterminate wood

TABLE 40-8

Features Identified as Carbonized Tree Trunks or Roots

Feature No.	¹⁴ C or CH Number	Other Number	Identification	Time Period
50	1053-1056		1053, 1054: live oak wood type; 1055, 1056: indeterminable	Middle Archaic
164	609	lot 35AA1A	indeterminable	Late Paleoindian
165	704-710, 712, 713, 716-718, 761, 762, 1473-1476		live oak wood type or indeterminable	Late Paleoindian
167	1214, 1217		11214: indeterminable 1217: live oak wood type	Late Paleoindian
198	914, 919, 921, 922		live oak wood type	Late Paleoindian
199	1085		red mulberry	Middle Archaic
253	296, 309		296:indeterminable, 309: live oak wood	Late Paleoindian

Walnut (Juglans spp.)

Nutshell fragments are commonly recovered from archeological sites, mainly because they are inedible, very likely to be carbonized, and highly resistant to deterioration (Munson et al. 1971:427). Walnut trees were widely utilized throughout the range of the genus; three species grow in Texas, and two in the study area, *Juglans arizonica* and *J. nigra*. Espinosa reported that the Caddo used a thick-shelled nut extensively, and this most likely would have been hickory nuts and walnuts (Swanton 1942:133). Reservation-dwelling Comanche in Oklahoma reported a tradition of eating walnuts (Carlson and Jones 1940:522). Hickory nuts and walnuts were recovered from sediments at the Caddoan site of Spoonbill (Pertulla et al. 1982:92-93), and walnuts from a late Prehistoric site, 41MS32 (Dering 1997).

Carbonized walnut shell fragments were recovered from Burned Rock Midden 1 and from four nonfeature contexts at the Wilson-Leonard site. Nutshell fragments can be carbonized by human activities, especially during processing when the shell fragments are separated from the nut meat. The shells can be recycled as fuel.

Hackberry (Celtis sp.)

Although one discolored hackberry seed that presumably exhibits burning was identified, hundreds of unmodified hackberry seeds were recovered from the sediments. Because they are an excellent carbohydrate source, hackberry fruits undoubtedly were utilized in most prehistoric economies. Unfortunately, hackberry seeds, which are actually calcareous nutlets, are a common intrusive element at many open archeological sites. Therefore it is very difficult to determine the extent to which this resource was exploited.

There are six species of hackberry in Texas, but only two, sugarberry (*Celtis laevigata*) and netleaf hackberry (*C. reticulata*), grow in the study area. The best-documented hackberry use is of the large *C. occidentalis*, which is distributed across the midwestern and northeastern sections

of North America, and the shrubby desert hackberry *C. reticulata*, which grows in west Texas. Hackberry fruits (drupes) among the species are very similar. A carbohydrate rich exocarp surrounding a calcareous endocarp. The entire fruit of *C. occidentalis* was eaten raw or ground into a meal and mixed with other foods by the Pawnee, the Omaha, and the Dakota (Gilmore 1977:24). Hackberry trees grow in upland, intermittent stream settings and also in better-watered riparian habitats.

Carbonized Wood

By far the most abundant plant material recovered from the Wilson-Leonard site was carbonized wood. At least 16 wood types were identified, and the great majority of the woody remains came from the macroplant samples or ¹⁴C samples that were separated during the excavation. The main problem with this type of sample is that the results cannot be used to compare taxon frequencies or densities among the levels. There is no guarantee that material was not missed during the excavation.

Woody plant remains have been utilized to reconstruct past environments at archeological sites, to document the environmental impact of human populations on the environment, and to analyze land-use patterns (Miksicek 1985; Shackleton and Prins 1992; Weir and Dering 1986). Such analyses must be undertaken with care, because they are based on the "Principle of Least Effort," which states that groups will utilize the nearest, most convenient fuel woods available. Ford (1979) has cautioned against such gross generalizations, citing examples of cultural preference. On the other hand, Shackleton and Prins (1992:635) maintain that highly preferred species may be selectively reduced with increasing harvesting pressure.

At the Wilson-Leonard site, two woods, oak and juniper, dominate the macroplant samples throughout the sequence. Two factors, cultural selection and postdepositional deterioration, have led to this overwhelming dominance. First, both oak and juniper are preferred fuel. Second, and perhaps

more important, oak and juniper preserve well and are easily identified, even in a very deteriorated state.

The following discussion provides information regarding the ethnobotanical record and the landform preferences of each tree identified in the macrobotanical remains.

Arboreal Legume (cf. honey locust *Gleditsia tricanthos*)

Honey locust is not a preferred wood nor is it an often mentioned plant resource. Swanton (1946:285) reports that the Creek and Cherokee utilized honey locust seeds.

Honey locust is a tree that grows best in moist, fertile soils. In the immediate area of the site, it would be part of the Brushy Creek gallery forest.

Gum Bumelia (*Bumelia lanuginosa*)

No ethnobotanical references are available.

Gum bumelia is a shrub or small tree that grows in fairly deep soils in open woodlands. Although gum bumelia grows throughout Texas except for the high plains, it is most common as an understory plant in the post oak savanna region east of the current study area. It probably grew on the edge of the narrow Brushy Creek flood plain.

Pecan (*Carya illinoensis*)

Although pecan wood was recovered in one macroplant sample, no carbonized pecan shell was encountered. In terms of heat production, pecan is only a fair quality fuel wood (Self 1982), and no ethnobotanical references to pecan wood are available.

On the other hand, pecan nut was a food resource for the Native Americans who lived within its range. Swanton (1946:133) quotes Fray Isidro Espinosa, a prolific early historical observer of the Caddo, reporting that they were collecting "thin-shelled nuts." These were, most likely, pecan. Espinosa also observed nut collecting and storage near the San Marcos River, where he described how the Indians shelled nuts and removed the kernels whole. He describes these nuts as being "longer and thinner," and they were probably pecans. These nuts were available in such quantities that they were stored and consumed throughout the year. Storage was effected in underground pits, and the pecans were transported unshelled threaded on strings or shelled in leather pouches (Tous 1930:10-11).

Pecan trees grow to heights over 130 feet. They are a major component of the gallery forest of most Central Texas stream valleys and may have grown along the flood plain and lower terraces of Brushy Creek at times when it was stable.

Dogwood (*Cornus* sp.)

Although dogwood is not often identified at archaeological sites, it is a potentially useful fuel wood. The wood is

quite heavy and makes excellent charcoal (Self 1982:131). No ethnographic use was found for the wood of this genus. Dogwood fruit was consumed by the Chippewa and the Potawatomi (Densmore 1928:321; Smith 1933:98).

The species of dogwood that grows in the area today, *Cornus drummondii*, is primarily an understory shrub or small tree. It would prefer the flood plain soils of Brushy Creek.

Walnut (*Juglans* spp.)

Walnut wood is both dense and heavy and is an excellent fuel (Self 1982). It has been reported in the charcoal remains of many Texas and midwestern archeological sites (Dering 1993:343-345; Johannessen 1984:210). Espinosa reported that a "black wood" was used by the Caddo to fashion plates or saucers (Swanton 1942:155). This emphasized the utility of black walnut for fashioning tools or other small utilitarian objects.

Black walnut (*Juglans nigra*) trees grow to a height of 80 feet and prefer moist deep soils. The tree could grow on the flood plain of Brushy Creek.

Juniper, Cedar (*Juniperus* spp.)

Juniper wood was the most abundant taxon in the identified samples at the Wilson-Leonard site. Juniper was the only taxon present in all stratigraphic units. Juniper wood is a preferred fuel throughout its range in the arid southwest of North America and is commonly reported from archeological sites throughout its range. In Texas, this includes south-central Texas (Black and McGraw 1985) and the northeastern edge of the Edwards Plateau (Dering 1997).

Although three species potentially grow in the region, it is impossible to identify juniper charcoal to the species level. Ashe juniper (*Juniperus asheii*) is the most likely candidate for the Wilson-Leonard site. The other species, southern red cedar (*J. silicola*) and eastern red cedar (*J. virginiana*) grow in deep soils, which in the immediate study area would have been confined to the Brushy Creek flood plain. Southern red cedar, for example, grows near water and is dependent on a very shallow water table. Eastern red cedar reaches prominence just beyond the eastern edge of the Edwards Plateau. The rocky limestone hills overlooking Brushy Creek, on the other hand, are ideal habitat for ashe juniper. Ashe juniper may be a good indicator of either human intervention or climate change, because it is very sensitive to fire. If a landscape is subjected to fairly frequent fire (more than one a decade), ashe juniper will be restricted to erosional breaks and other protected habitats (Smeins and Merrill 1988).

**Mulberry Family and Red Mulberry
(*Moraceae* and *Morus rubra*)**

The mulberry family includes mulberry and bois d'arc. Mulberry wood is not mentioned in Texas ethnohistoric

reports, however, the strong and elastic wood of bois d'arc was technologically valuable, especially as a material for making bows. The wood was used for many other purposes: to haft tools, to make clubs, and to make lances (Carlson and Jones 1940:534). Although mulberry fruit was not recovered in the samples, its almost universal use by Native Americans raises the possibility that the fruit was consumed. The Caddo consumed mulberries, as did other Indians observed between the San Marcos and Colorado rivers by the eighteenth-century observer Fray Isidro Espinosa (Swanton 1942:143; Tous 1930:12).

Red mulberry (*Morus rubra*) is a medium-sized tree (<60 feet) that prefers moist, deep soils and open spaces. It probably grew in the Brushy Creek flood plain, along the edge, and in open areas of the gallery forest. Bois d'arc (*Maclura pomifera*) is a small tree that is native to the Blackland Prairie, with its distribution centered in the Red River valley. Its range has been extended by extensive transplanting. Because bois d'arc needs ample moisture and fire control to survive, it would have grown in the Brushy Creek watershed or been brought into the region by the site's inhabitants.

Live Oak and Oak (*Quercus* spp.)

Live oak wood is the second most commonly occurring taxon in the samples. In addition, the identification of at least four in situ burned oak trunks and roots provide direct evidence that live oak grew at the site. An ideal fuel (Self 1982), oak (*Quercus*) wood was preferred by most Native Americans living within the range of abundant oak stands. Although very little has been reported in the local ethnographic literature regarding oak wood, archeological reports of Central Texas Archaic age through Late Prehistoric sites indicate oak is perhaps the most commonly identified of all woods (Dering 1997).

The ethnohistoric literature of Texas has several reports of acorn utilization (Swanton 1942:134; Tous 1930:12-13). Ethnographic reports from surrounding regions indicate that most groups utilized acorns in some manner, although none of them indicates that acorns were a staple (see Castetter 1935:47; Havard 1895:119; Robbins et al. 1916:44).

Several species of oak grow in the region, but live oak was by far the most abundant of the oak wood types identified in the samples. There are two species of live oak growing in the study area, *Quercus fusiformis* and *Q. virginiana*, both of which intergrade along the eastern edge of the Edwards Plateau. Both very closely related species prefer open, well-drained upland contexts.

Rose Family (*Rosaceae*)

The wood of the Rosaceae is not identifiable to the genus level using gross anatomical features at low magnification. The rose family includes several small tree species of relatively minor importance, including hawthorn

(*Crataegus*), wild plum and wild cherry (*Prunus*), and crabapple (*Pyrus*).

The fruit of certain species of all of these genera has been of some economic use, either as a food condiment or as a medicine, by many different groups in the southern plains and regions adjacent to the southern plains (see Carlson and Jones 1940:521-523; Gilmore 1977:34-35; Swanton 1942:133). Unfortunately, no Rosaceae seeds were recovered from the Wilson-Leonard samples, but the presence of wood demonstrates that the resource grew in the area and was available to the people living there.

Hawthorns (*Crataegus*) adapt to a variety of lowland or upland settings, but they are shade intolerant. They live in open spaces on the outer edges of higher sections of the Brushy Creek flood plain or on deeper soils in the uplands. *Prunus* (wild plum and cherry) has a similar habit, preferring open spaces but being relatively tolerant to extremes of moisture as long as the soil is well drained.

Willow Family (*Salicaceae*)

The trees of the willow family growing in the study area are cottonwood (*Populus deltoides*) and willow (*Salix*). Carbonized specimens of these two trees are currently indistinguishable using standard identification methods. Both are very valuable raw materials for many technological applications. Although ethnohistoric reports from Texas do not mention its use, willow (*Salix*) is perhaps one of the most widely used woods in North America. Applications of willow wood include basketry, arrows, lances, snares, roofing material or other uses in structures, and as a medicine (Carlson and Jones 1940:524; Gilmore 1977:21-22).

Cottonwood (*Populus deltoides*) is another economically important tree. In Texas, ethnohistoric sources do not mention the uses of cottonwood, but in the southwest its root is useful for carving icons and for building construction (Vestal 1952:22). In the Great Plains, the inner bark was eaten, and the leaf buds produced a yellow dye (Gilmore 1977:20). Both willow and cottonwood are part of the riparian woodlands and are confined to the flood plain of Brushy Creek.

Elm Family (*Ulmaceae*)

ELM (*ULMUS* SP.)

The elm family includes several species of elm and hackberry trees. Elm tree trunks were utilized as mortars (Swanton 1942:131).

HACKBERRY (*CELTIS* SPP.)

No record of the use of hackberry wood in the ethnohistories of Texas was found. The wood charcoal, however, often is recovered from archeological sites in central Texas (Dering 1997).

Sugarberry (*Celtis reticulata*) is a tree that grows to 60 feet in virtually any type of well-drained soil, from calcareous loams to black clay. It would grow best on the edge of the flood plain and on the slopes overlooking the flood plain.

Interpretation of Woody Plant Remains

The carbonized wood identified in the samples gives a general impression, but not a detailed or quantitative evaluation, of the nature of the vegetation around the site. In addition to the previously discussed sampling problem, cultural selection or preference most likely had a great affect on the nature of the plant remains, including wood, at the site. Second, preservation factors have greatly reduced the macrobotanical record. For these reasons, it is not possible to develop a detailed model of local environmental change from the data (see Shackleton and Prins 1992:632). Third, because of the highly deteriorated nature of the material, it is impossible to determine the source of most of the charcoal identified at the site. The charcoal may have been deposited by alluvial activity, by colluvial activity, or it may have been growing in the immediate area. The exceptions are the identifications of seven tree stumps/roots that were burned in situ.

Both juniper and oak are present today as well as in stratigraphic Units Isi to IIIc (ca. 0-10,000 B.P.). This indicates that for at least 10,000 years, the floristics of the woody vegetation of the region did not change radically. This does not eliminate the possibility that local changes in vegetation occurred throughout the Holocene. Such changes may have been wrought by climatic change or human influences. Although the floristics of major tree/shrub species remained very similar, the species composition and distribution of the plant populations, including what plants dominated which landforms, may well have changed. Unfortunately these changes are beyond the resolution of detail that can be generated by this study.

Geophytes: The Significance of Wild Hyacinth (*Camassia scilloides*)

Given the condition of plant remains recovered from archeological sites in Central Texas, the presence of carbonized intact bulbs at the Wilson-Leonard site is a remarkable find. The fact that very little is known of plant foraging strategies along the southern plains increases the importance of these specimens. For this reason, an extra effort has been placed on the identification and interpretation of these bulbs. The inner epidermal cell shapes of the archeological bulbs, as reported in the methods section, match very well with the *Camassia scilloides* in the collections. Three of the suspected species, *Allium canadense* var. *canadense* (Canada garlic), *Nothoscordum bivalve* (false garlic), and *Erythronium albidum* (dog's tooth violet), were eliminated as possibilities, while the cells of *A. drummondii* (Drummond

onion) are similar. On the average, they have one less side and are about twice the size of the *C. scilloides* (wild hyacinth) cells (Figure 40-1). Wild hyacinth is by far the best match for the archeological material. Given the nature of the match and the fact that these bulbs most likely came from a food processing context (Table 40-9), the potential of wild hyacinth as an economically important plant should be addressed.

To my knowledge, no one has identified wild hyacinth from archeological sites. Such oversight is probably due to the scarcity of archeological plant material of this nature and to the difficulty encountered in identification. The exterior shape of bulbs become radically altered when they are cooked and accidentally charred in an earth oven by a combination of pressure and heat; bulbs of the genus *Camassia* shrink radically and change shape as they are dried and/or charred. This means that an examination of gross characteristics such as shape or size have limited value in making an identification (Stenholm 1987). These factors have combined to render many possible plant root resources virtually invisible in the archeological record.

Camassia scilloides is commonly known as wild hyacinth, eastern camas, or blue camas. It is a member of the Lily family, and the genus contains seven species, all from North America. Wild hyacinth is a geophyte, a plant that stores food in the form of carbohydrates in subsurface structures. The underground structure may be a modified stem, as is the case of the potato tuber; a modified root, as a carrot; or a modified leaf, as exemplified by bulb producing plants such as the onion. Wild hyacinth produces a bulb. A scapose perennial, wild hyacinth grows from a subglobose, black, scale-coated bulb that measures between 2-4 cm across. The flower stalk of light blue flowers can reach 70 cm in height. The plant is well suited to periodic harvesting for two reasons. First, the flower produces around 15 seeds per fruit (a capsule), but a single plant can produce up to 100 capsules (Gould 1942:720; Great Plains Flora Association 1986:1248). Second, the bulbs generate offsets, that is, the main bulb reproduces vegetatively by producing small bulbs. When the bulb is dug up using a digging stick, the younger bulbs often are left behind (Scooter Cheatham, personal communication 1995).

Wild hyacinth is the only member of the genus that grows east of the Rocky Mountains. It is distributed in a very wide band from the Edwards Plateau and Post Oak Savanna of Texas, along the eastern side of the Great Plains through Oklahoma and Missouri north to Ohio (Gould 1942). It is locally abundant in slightly dry to wet prairies and open woods throughout the southern and central parts of its range (Great Plains Flora Association 1986). In Texas, wild hyacinth grows in locally dense stands in the Blackland Prairie and along the eastern edge of the Edwards Plateau (Scooter Cheatham, personal communication 1995). The Wilson-Leonard site is located in the same environmental setting.

FIGURE 40-1. SEM photographs of archeological and comparative bulbs. (a) carbonized inner epidermis of *Camassia scilloides* reference material (350X); (b) carbonized inner epidermis of *Allium drummondii* reference material (200X); (c) Wilson-Leonard sample 1483-1 oblique angle view of carbonized bulb showing layering of bulb scales; (d) Wilson-Leonard sample 1483-1 tangential view of carbonized bulb angle to inner epidermis, showing shape and size of cells (350X).

Carlson and Jones (1940:520) report that the older Comanches they interviewed mentioned that wild hyacinth was eaten raw. Such a practice does not signify that this bulb was an important staple, as the closely related camas was in the Pacific Northwest. Still, the presence of wild hyacinth in association with fire-cracked rocks suggests that it was cooked in an earth oven. This would be necessary for individuals to eat large quantities of any bulbs in the genus *Camassia*, because they contain the indigestible polysaccharide inulin (Kindscher 1987:74; Thoms 1989:157). Inulin is a complex carbohydrate that must be broken down by hydrolysis into simple sugars before it can be digested. Inulin is broken down by baking the camas bulbs in the presence of steam for an extended time, usually 24-48 hours. Hydrolysis, the splitting of chemical bonds by the addition

of water, breaks down long chain carbohydrates into usable short chain sugars (Thoms 1989:157).

Hydrolysis of the chemicals in camas and other plants is accomplished by baking them for extended time periods in an earth oven. Using a pit filled with hot rocks that serve as the heating element, the bulbs are wrapped in moist vegetal packing material and buried for at least 24 hours. The resulting steam and heat provide the environment necessary to break down inulin and other indigestible chemicals within the plant.

Kindscher (1987:74) speculates that the indigenous peoples of the Great Plains did not use wild hyacinth as a major food source, because it contained the indigestible inulin, and because it closely resembles death camas (*Zigadenus*). Thoms (1989:158) reports that some groups in

TABLE 40-9
Provenience of *Camassia scilloides* by Feature

Feature	Unit	Feature Type	Charcoal/ ¹⁴ C Sample Number
8	Y	Burned rock accumulation	CH-998
Burned Rock Midden 2	IIIc	Burned rock midden	CH-0925
181	IIIa	Earth oven	CH-1483-1, CH-1483-2
181	IIIa	Earth oven	CH-1478
181	IIIa	Earth oven	CH-1479
181	IIIa	Earth oven	CH-1482
181	IIIa	Earth oven	CH-1484
181	IIIa	Earth oven	CH-1480
181	IIIa	Earth oven	CH-158
181	IIIa	Earth oven	C14-219
181	IIIa	Earth oven	C14-354

the northern Rocky Mountains, such as the Thompson, used camas as a staple, and the Cour d'Alene used it as a condiment. These differences were due to a complex set of factors including cultural preferences, availability of suitable camas stands, and availability of other natural resources.

It is doubtful that indigenous groups had difficulty telling the difference between death camas and wild hyacinth. For example, both death camas and edible species of camas grow abundantly in certain areas of the Pacific Northwest, but this did not prevent the collection and mass processing of camas by many indigenous peoples in the Pacific northwest (Stenholm 1987:490). We know that Native Americans possessed the technological skills to properly prepare the camas and other bulbs for mass consumption because the archeological record at the Wilson-Leonard site testifies to the time depth of this knowledge. All of the bulbs come from Archaic contexts. Ten of the bulbs were recovered from the Feature 181 and have been radiocarbon dated to 8000 B.P., and the 1 bulb recovered from Feature 8 has a radiocarbon date of 8250 B.P. A single bulb was identified in a Late Archaic Burned Rock Midden 2 and dates to 3780 B.P.

Recent macrobotanical analyses have produced other identifications of bulb resources across the Edwards Plateau. A cache of 62 bulbs from Horn Shelter (41BQ47), also located in a creek setting within a savanna-prairie ecotone 100 km north of the Wilson-Leonard site, was recovered from a hearth or oven that dates to the late prehistoric period, around 500 B.P. (Watt 1978:119). Examination of the bulbs from Horn Shelter indicated that they were also eastern camas. This provides direct archeological evidence that the practice of collecting and cooking bulbs probably persisted throughout the Holocene period.

SUMMARY AND CONCLUSIONS

This analysis has generated an archeobotanical record consisting of at least 20 plant taxa, including wood, bulbs, nuts, and seeds. Only 3 of the 76 flotation samples examined contained identifiable carbonized plant remains. Carbonized wood made up the bulk of the material in the macroplant samples. At least 16 wood types were identified, but the overwhelming majority was juniper and oak. The wood assemblage was dominated by the most resistant and easily identified wood types in the region, another indication that the archeobotanical assemblage has been reduced greatly by postdepositional formation processes.

Despite the reduced condition of the assemblage, 12 eastern camas bulbs were recovered from fire-cracked rock contexts. Other plant resources include walnuts, 3 species of grass seed, and hackberry fruit.

Walnut shell fragments were recovered from stratigraphic Units Isi/Isi-c, IIIa, IIIb, and IIIc. No walnut fragments were recovered from stratigraphic Unit II. Walnut fragments were not recovered in flotation samples, and they were not recovered in large numbers from feature contexts. However, a few walnut shell fragments were recovered from Burned Rock Midden 1. For this reason, it is difficult to make an argument regarding the intensity of walnut exploitation at the site. A few shell fragments do not make a good argument for the utilization of the riparian forest, but they do suggest that riparian woodland resources were utilized.

A single carbonized hackberry nutlet was found in Isi/Ic1. Uncarbonized hackberry (*Celtis*) nutlets were recovered throughout the profile. Although probably a food source, the presence of dozens of possibly intrusive nutlets make assessment of the extent to which it was utilized impossible.

The grass seeds (*Paspalum*, *Setaria*) may have become carbonized in a grass fire or as a result of human activities. Only *Panicum* has abundant ethnohistoric references to its use as a food source, and these references are confined to arid southwestern North America.

The 16 wood types identified in the macroplant samples illustrate only a fraction of the range of woody plants that grew in the area. The deteriorated nature of the archeobotanical assemblage may account for this. The majority of macroplant samples (232, or 50%) could not be identified. Juniper and oak (156, or 68%) were the most commonly recognized wood types in the macroplant assemblage. All other wood taxa accounted for only 22% (n=51) of the macroplant samples. The high frequency of occurrence of juniper and oak in the samples may be the result of several factors. First, both wood types are easily identifiable even in a highly degraded state. Second, both trees probably were a dominant part of the woody vegetation in the region throughout the Holocene. Third, both are preferred fuel woods. It is difficult to determine which one or more of these factors is indicated by the prevalence of juniper and oak in the archeological assemblage.

Significantly, 10 carbonized plant bulbs were recovered from an Early Archaic oven in stratigraphic Unit IIIa and 1 from an Early Archaic burned rock accumulation in Unit Y. One bulb was identified from a Late Archaic burned rock midden in stratigraphic Unit IIIc. The bulbs from Units IIIa and Y have ages ranging from 7870-8420 B.P. The Late Archaic bulb has been dated to 3780 B.P.

Using scanning electron microscopy, the bulbs have been identified as wild hyacinth (*Camassia scilloides*), an eastern relative of the camas plant. No detailed ethnographic information is available for the wild hyacinth, but it is very closely related to the camas of the Pacific Northwest. Although the plant flowers from late March to early May, the bulb is best harvested in the fall, after photosynthesis has generated adequate carbohydrate stores (Thoms 1989). Dense stands of wild hyacinth potentially can provide a significant carbohydrate source to human populations.

THE MACROBOTANICAL RECORD AND PLANT AND LAND USE THROUGHOUT THE HOLOCENE

The reduced nature of the archeobotanical record limits discussions on site seasonality, plant resource exploitation, and fuel wood utilization. This analysis, however, resulted in the development of a new method for identifying geophyte remains recovered from archeological sites. The identification of a new resource, wild hyacinth, should encourage increased effort and focus on the technology of food processing, especially poorly understood carbohydrate resources such as plant roots. Current models of prehistoric plant and land use have not sufficiently explored the potential of geophyte exploitation along the southern plains periphery.

The wild hyacinth (*Camassia scilloides*) is a carbohydrate-rich resource that was collected at some time before it flowered, perhaps in the fall. If processed correctly, it provides an ideal source of carbohydrates. As a result of habitat destruction, stands of wild hyacinth are difficult to locate. However, the plant is distributed longitudinally along the eastern edge of the Edwards Plateau (Scooter Cheatham, personal communication 1995), and the Wilson-Leonard site is located along this line. It has been observed growing on rocky hillsides overlooking creeks and in deeper soils along creek bottoms. Along the eastern edge of the Balcones escarpment, wild hyacinth has been observed growing in the open canopy flood plains of creeks, for example Shoal Creek and Onion Creek. In the immediate vicinity of the Wilson-Leonard site, the most likely area would be on the open areas of the Brushy Creek flood plain.

Most of the wild hyacinth remains were recovered in a context of fire-cracked rocks, in Feature 181 and Burned Rock Midden 2. One of the primary functions of an earth oven is to process plant resources containing carbohydrates. The most parsimonious interpretation for Feature 181 is that it was used in at least one event to prepare a quantity of wild hyacinth bulbs.

Given that aboriginal populations maintained grasslands and productive stands of plant food resources using controlled burning, it is tempting to link burning episodes in the archeological record to maintenance of grasslands. Drawing a connection between wild hyacinth bulb processing and burning episodes at Wilson-Leonard presents problems. First, the fires and the feature in which the bulbs were deposited are not contemporaneous. At least two fires are documented by the presence of burned tree trunks, the earliest around 9500 B.P., and the second around 5500 B.P. The wild hyacinth bulbs are dated to around 8000 B.P. and 3780 B.P. Second, the burning of oak or mulberry tree trunks and roots indicates an intense crown fire. Normally, Native Americans set small, more-controlled ground fires (Lewis 1973:55).

Recovering this type of direct evidence of burning is rare. Although the two feature types, the ovens and tree trunks, cannot be linked to each other temporally, the fact that wild hyacinth grew in exploitable populations suggests that there were open, well-drained and well-watered grasslands in the immediate vicinity of the site. In this region, and in any climate that approximates what we are experiencing in the Holocene, fire is the only force that would keep the open canopy vegetation cover necessary for the growth of wild hyacinth populations. This area may have been an open live oak savanna at 8000 B.P.

The possibility that fires were utilized as a landscape modification technique should be considered in future research. Wild hyacinth will not grow in dense woodland stands without an open canopy (Gould 1942). Further, growth in the stands is encouraged by winter burning which controls competitors and releases nutrients into the soil, stimulating growth of the bulbs in the following spring.

Researchers have begun to reconstruct the history of aboriginal maintenance of prairies, grasslands, and oak savannas using scheduled burning for the purpose of both wildlife and vegetation management. This includes purposeful management of vegetation by burning to enhance the growth of bulb resources (Anderson 1993:167; Thoms 1987:169; Timbrook et al. 1993:145), of oak savannas for the exploitation of acorn crops (McCarthy 1993:220), and for the management of wildlife populations (Lewis 1973:33). Granted, some of these techniques are best documented for the California chaparral, but they are also documented for certain areas of the Great Plains (Stewart 1954; Wedel 1957:62).

I recently have identified wild hyacinth at Horn Shelter (41BQ47), which, like the Wilson-Leonard site, is located

along the ecotone between the plains and the woodlands. This is a plant resource that has been completely overlooked to date, and has not been considered seriously as a potential staple in the Archaic subsistence patterns of the southern plains periphery.

Geophytic resources, once thought to be invisible in the archeological record, are now becoming known, thanks to increased awareness on the part of archeologists and to improvements in identification techniques. As the integration of disparate data sets, such as modern plant ecology, geomorphology, and ethnohistory proceeds, more sophisticated models of the gathering systems used by hunter/gatherers living at the edge of the southern plains will be elucidated.

CHAPTER 41

PHYTOLITH ANALYSIS

by Glen Fredlund

Opal phytolith analysis provides evidence of both vegetation change and plant use at the Wilson-Leonard site. Local and regional vegetation change is inferred from a stratigraphic column of 78 close-interval samples. Analysis of 13 archeological feature samples and comparisons with the stratigraphic column provide the basis for ethnobotanical inferences. Other nonsilicate phytolith forms (Jones and Bryant 1992) are unlikely to have survived in the soil-forming environment at Wilson-Leonard and were not pursued. The primary emphasis of the investigation of opal phytoliths is on regional paleovegetational records.

The inference of local and regional vegetation change from phytolith assemblages requires a full understanding of phytolith production, dispersal, deposition (assemblage formation), taphonomy, recovery, and identification (Piperno 1988). Our understanding of these topics remains incomplete. As with the more mature study of Quaternary pollen, the key to applying phytolith analytical methods is the study of contemporary environments. Toward that end, this study also includes analysis of 15 modern phytolith assemblages from 6 Central Texas localities. The results of these studies are included and used as a basis for interpretation. While these modern samples are helpful, there remains much to be done before phytolith analysis can be applied with the same level of confidence as Quaternary palynology.

LITERATURE REVIEW

Previous Texas phytolith studies demonstrate the potential utility of the method in this region of poor pollen preservation (Robinson 1979, 1982; summarized in Piperno 1988:184-187). Robinson used three separate signals to infer regional vegetation and climate change in south-central Texas: (1) the relative abundance of arboreal phytoliths, (2) change in the grass short-cell assemblages (cf. Twiss et al. 1969), and (3) relative abundance of aquatic silicate fossils (diatoms, chrysophytes, and sponges). Arboreal phytolith

forms produced by palms, elms, hackberries, and oaks were found to be of particular importance in these studies. Robinson used isolated samples from various archeological sites in south-central Texas to construct a model of regional vegetation change over the last 8,000 years. From these data, he suggested that the arboreal component of vegetation dropped dramatically between 7000 and 8000 B.P. and did not begin re-expansion until about 2000 B.P. His data also suggest that grassland composition fluctuated throughout the Holocene with peaks in xeric short-grasses occurring around 7000 and 4500 B.P. (Piperno 1988:137). In general, Robinson's interpretations are in keeping with other models of Holocene vegetation and climate change in central Texas (Bousman 1994; Collins 1995).

In Robinson's approach, there is an implicit assumption that phytolith assemblages reflect regional, rather than local, vegetation. This assumption is especially critical for interpretations but remains poorly tested. Contrasting with Robinson's work are archeological interpretations of microvariability among phytolith assemblages. These interpretations depend on the alternative assumption of local source area, also called "decay-in-place," which is cited as essential for the ethnobotanical interpretations of intrasite variability (e.g., Pearsall 1989:311-438). Modern soil data gathered from across the Great Plains grasslands suggest that the assumption of "decay-in-place" is not valid for the grass short-cell portion of the phytolith assemblage (Fredlund and Tieszen 1994). These data suggest that grass short-cell phytolith assemblages are often more likely representative of regional vegetation than the result of in situ decay. This does not mean that ethnobotanical interpretations of archeological samples are invalid but rather that they should be strongly based on an understanding of non-anthropogenic variability among local phytolith assemblages (Lawlor 1995). Such an approach will better identify phytolith assemblages resulting from specific human plant use.

The extension of the extralocal model of assemblage formation may not be valid for the arboreal component of the phytolith assemblage. Both production and dispersal of arboreal phytoliths affect assemblage formation. Annual phytolith production is about an order of magnitude lower for forest than for grassland. Many large arboreal phytoliths are probably less susceptible to extralocal transportation than are smaller grass forms. Unfortunately, little empirical data for forest assemblages exists. Piperno's (1988) study of modern surface samples demonstrates that local decay-in-place formation processes dominate within a tropical rain forest. The applicability of the local decay-in-place model of assemblage formation to the open woodlands of Central Texas is undetermined.

Other researchers have used phytolith analysis to infer change in woodland-grassland boundaries and in community composition. These applications fall into two broad categories: those using total phytolith mass and those using a morphological classification of phytolith forms. A few researchers have combined the two approaches. Underlying the use of phytolith mass is the general difference in grassland and forest phytolith production (Johnston et al. 1967; Wilding and Drees 1968; Wilding et al. 1977). Grasses, sedges, and some forbs produce high levels of phytoliths. Production ranges from 1 to 6% of the net annual production for grasslands. Annual production by trees and shrubs is typically a fraction of that for grasses. This differential production of phytoliths is ultimately reflected in the soil content. Soils from stable grassland have substantially higher opal phytolith content than do soils from woodlands (Jones and Beavers 1964). This line of reasoning has been successfully used to infer long-term vegetation change from buried soil horizons.

This difference has also been applied to extant soil systems to infer either local vegetation stability or ephemerality (succession). For example, Kalisz and Boettcher (1990) have used differences in phytolith mass estimates to argue for the long-term stability of prairie patches known as Buffalo Beats in southeastern Ohio. Other researchers have used the lack of difference in phytolith mass across ecotone or patch boundaries to argue for forest encroachment or successional processes (cf. Fisher et al. 1986; Fuller and Anderson 1993; Witty and Knox 1964). Implicit in these applications is an assumption of local spatial scale for soil phytolith assemblages.

The second general approach relies on morphological classification of phytolith forms. Grasses produce very distinctive, densely silicified, short-cell phytoliths that are readily identifiable (Piperno 1988; Rovner 1971, 1983; Twiss et al. 1969). Trees and shrubs produce a wide variety of phytolith forms. Although there is no complete catalog of phytolith forms for North American trees, shrubs, and forbs, the more common forms are fairly well defined (Bozarth 1992, 1993; Geis 1973; Klein and Geis 1978; Piperno 1988; Wilding and Drees 1971, 1973). The most common forms encountered in

soil samples include silicified epidermal and mesophyll cells, hair bases, and hair structures produced and shed annually with needles or leaves. Classification schemes of arboreal forms have varied with specific paleoecological applications. They range from a very simple gross separation and categorization of the large nongrass forms in southeastern North America (Carbone 1978) to the very detailed study and classification of forms produced within a diverse neo-tropical plant community (Piperno 1988).

One of the variables that affects the application of phytolith analysis to arboreal assemblages is taphonomy. Many arboreal phytolith forms are weakly silicified and more susceptible to dissolution in the soils than other more densely silicified forms. Large arboreal forms, especially weakly silicified epidermal fragments, are also more susceptible to mechanical damage than are grass short-cell phytoliths. Where preservation is variable, a simpler but less taxonomically sensitive classification of nongraminoid phytoliths may provide a more reliable measure of shifts in grassland-woodland composition.

One strategy employed in this study is separate analysis of grass phytolith assemblages. Although grasses produce many forms (short cells, elongate cells, bulliforms, trichomes), the most taxonomically and environmentally significant are the short cells (Fredlund and Tieszen 1994; Twiss et al. 1969). Although the correlation of the short-cell forms with grass taxonomy is imperfect, when analyzed as assemblages, short cells provide a means for documenting change in regional grassland composition. Short-cell assemblages are not only sensitive to shifts between cool-season adapted C_3 and warm-season adapted C_4 grasses but can also measure relative changes between the xeric-adapted short grasses and the mesic-adapted tall grasses.

METHODS

Sample Collection

Modern soil samples were collected from six localities in Central Texas. These localities included a variety of prairie and woodland communities and comprise a short transect (from Bell County to Kerr County) across a steep climatic gradient in Central Texas (Table 41-1). As with any modern study, identifying and sampling appropriate and relatively intact plant communities was a problem. Historic land use of the region has greatly altered vegetation. Some of the localities that appeared to have mature vegetation had little soil development, indicating historic soil loss. Even so, the six localities provide some basis for calibrating fossil phytolith assemblages.

Undisturbed areas were sought within each of the modern localities. Multiple samples were collected to explore the level of local variability. Multiple samples from within a locality include both replicate samples collected within homogeneous areas and transects of samples along local

TABLE 41-1
Modern Sample Sites in Central Texas

Code	Site Name	County	Vegetation	Comment
SM	Spohn Meadow	Bell	prairie	nonnative species
IP	Irish Prairie	Bell	prairie	unplowed hay field
WL	Wilson-Leonard, upland	Williamson	oak-juniper	soil erosion
PF	Pedernales Falls	Blanco	oak woodland	soil erosion
KS	Kerrville-Schreiner	Kerr	oak woodland	woodland succession
HR	Hall's Ranch	Kerr	oak savanna	heavily overgrazed; soil erosion

topographic gradients representing maximum local variability. Each sample is a composite of four individual soil samples from within a 4-m² area. The surface litter layer (or O-horizon), where present, was collected separately. The upper A-horizon (upper 2 to 3 cm) was pooled and analyzed separately from the litter layer samples.

At the Wilson-Leonard site, the stratigraphic column of 78 samples, which forms the basis of this paleoenvironmental interpretation for the site, was collected from the TARL Square 12 profile, with deeper stratigraphic samples taken from the profile of Square 55. The sampling interval was approximately 10 cm throughout the column. A set of 12 samples taken from another deep excavation unit representative of the deepest strata (Igl) were also analyzed. Additional samples were collected from a variety of archeological features throughout the TARL excavation.

Phytolith Extraction

Eight grams of air-dried sediment were used for each phytolith extraction, except where limited by sample size. The process of isolating opal phytoliths from soil samples includes: (1) the oxidation of carbonates, (2) removal of clays, (3) oxidation of residual organic matter, and (4) heavy liquid fractionation. Twenty milliliters of 37% hydrochloric acid were used to oxidize carbonates. After all carbonates were oxidized, the samples were repeatedly washed with distilled water until pH was neutralized. A 0.1-molar solution of sodium hexametaphosphate was used to deflocculate clays and oxidize colloidal organics. Dispersed clays and colloids were decanted after silts and sands settled. All clays were removed through repeated stirring, settling, and decanting. The samples were then treated with a 30% hydrogen peroxide solution in a boiling water bath to oxidize residual organics. Clays and colloids released by this process were then decanted as described above. The biogenic silicates were isolated from the heavier mineral fraction with a 2.35 specific gravity solution of zinc bromide. The heavy liquid flotation was repeated three times. A 5-micron pore membrane was used to recover phytoliths from among the decanted clays and colloids and from dilute heavy liquid. The isolated fraction was washed and stored dry. The dried extracted fractions (material less than specific gravity 2.35) were weighed for each sample. Each weight is expressed as a percentage of

the air-dried weight of the original sediment sample (Percent Extracted Weight).

Visual assessment of preservation was applied to each fossil assemblage. A five-point scale was used in the evaluation of preservation: (1) barren, (2) poor, (3) adequate, (4) good, and (5) excellent. Samples rated below adequate were judged unsuitable for quantitative analysis. Key visual features used in this somewhat subjective characterization include density of phytoliths (relative to nonbiogenic silicates) and the degree to which larger phytoliths exhibit dissolution pitting.

Phytolith Identification and Counting

This study began with the morphological classification and quantification of phytolith forms. At least two slides were prepared for each extraction. A glycerin solution was used as the mounting medium. Glycerin allows for rotation of the micro fossils under the cover slip for more accurate classification. Slides were systematically scanned at 630X magnification with a Leitz Laborlux-S microscope. Rapid, point-count procedure was used to estimate the frequency of nonbiogenic silicates and irregular phytolith fragments. Other forms were counted individually. Identification and classification of arboreal and related angiosperm forms was based on published descriptions (Bozarth 1992; Geis 1973; Klein and Geis 1978; Piperno 1988) and comparative collections. The anatomical classification of arboreal and gymnosperm forms included polyhedral epidermis and mesophyll forms, epidermal hairs and hair bases, silicified trachiar elements, and the palm type. Several very diagnostic but unknown forms were also defined. Classification of grass forms was based on the system proposed by Twiss et al. (1969) and modified by Brown (1984), Mulholland (1986, 1989), Mulholland and Rapp (1992), and Piperno (1988). The grass short-cell classification has been collapsed to 12 morphological types for purposes of analysis and display (Fredlund and Tieszen 1994). Classification of sedge phytolith forms followed the scheme proposed by Ollendorf (1992).

Three principal measures for inferring changes in vegetation and climate were used: (1) estimates of total phytolith mass expressed as percent weight, (2) relative change in woodland-grassland ratio, and (3) percentages of grass short-cell phytolith types. The mass or percent weight of

phytoliths recovered for each sample is not simply an indicator of production. It is the resulting balance between production, surface stability (affected by both aggradation and degradation), and phytolith dissolution. The dissolution factor was independently evaluated with a visual inspection for pitting and destruction. The woodland-grassland ratio is the ratio of large, blocky, and polyhedral arboreal phytolith forms divided by the total grass short-cell count times one hundred.

RESULTS

Modern Assemblages

Analysis of modern samples is the basis for interpreting fossil assemblages. It provides a means for calibrating phytolith assemblages with vegetation and an indicator of the stochastic range of variability that can be expected to occur naturally among fossil assemblages. This set of modern soil samples is used to test the validity of the woodland-grassland ratio as a measure of woodland vegetation cover. Percent weight recovery was also calculated for all upper A-horizon (A1) samples (Table 41-2). Phytolith extractions for many modern samples were problematic, and the resulting weights may not be representative of the true phytolith weights of these soils. The problem was caused by the persistence of clays and colloids prior to specific gravity separation. The assemblage composition, however, appeared to be unaffected and should be representative. Weights were not calculated for the litter-layer horizon samples. Localities are discussed along a northeast to southwest transect.

Two true grassland localities were sampled near Temple, Texas—Spohn Meadow and Irish Prairie. Although the contemporary grass composition of the two localities is quite different, both fall within the Blackland Prairie Region (Diamond and Smeins 1985). Spohn Meadow, a small (5-acre) unplowed lowland prairie remnant, is dominated by big bluestem (*Andropogon gerardii*). This meadow has been used for hay. The prairie does contain some nonnative taxa, most notably Johnson grass (*Sorghum halepense*). Sample SM-1 is representative of this grassland remnant. SM-2 was taken from within a large successional patch of hackberry (*Celtis* sp.) which appeared to be about 20 years old. Irish Prairie is a slightly larger (ca. 21-acre) unplowed prairie remnant. This prairie encompasses a local gradient from xeric exposed uplands to mesic settings along an ephemeral stream. Xeric sites are dominated by a patchy mosaic of little bluestem (*Schizachyrium scoparium*) and hairy grama (*Bouteloua hirsuta*). Side-slope composition is dominated by little bluestem (*Schizachyrium scoparium*). The mesic, riparian setting is dominated by a mix of big bluestem (*Andropogon gerardii*), gamma grass (*Tripsacum dactyloides*), and King Ranch Bluestem (*Bothriochloa ischaemum*). An extensive complement of native forbs also persists on this remnant. Four samples (IP-1 through IP-4) represent the vegetation and soils of this local landscape gradient.

The remaining sites are more typical of the open woodlands of Central Texas. A single sample was collected from the open juniper woodlands above the Wilson-Leonard site. The vegetation of this locality, like most of the region, had been significantly altered historically. Erosion was evident and little soil remained. Two samples were analyzed from Pedernales Falls State Park. Both localities were collected

TABLE 41-2
Modern Sample Data: Percent Weight Recovered and Woodland/Grassland Ratio

Lab No.	Field No.	Soil Horizon	Dominate Local Vegetation	Percent Weight	Woodland-grassland Ratio
93012605	SM-1	A1	Big Blue Stem	0.42	8.209
93012609	SM-2	A1	Hackberry succession	0.37	16.117
93012608	IP-1	A1	Grama grass	0.52	13.527
93012610	IP-2	A1	Grama/Little Blue	0.35	10.593
93012611	IP-3	A1	Little Blue Stem	0.47	8.333
93012612	IP-4	A1	Big Blue/Grama grass	0.67	6.818
93012607	WL	A1	Juniper woodland	0.72	22.093
93080903	PF-1	Litter	Grama grass/woodland	N/A	26.102
92121407	PF-1	A1	Grama grass/woodland	2.68	9.950
93080904	PF-2	A1	Grama grass/woodland	0.79	10.823
93080905	KS-1	Litter	Oak woodland	N/A	23.551
93012604	KS-1	A1	Oak woodland	0.92	23.735
93080906	KS-2	Litter	Oak woodland	N/A	20.435
93012601	KS-2	A1	Oak woodland	1.27	28.470
93012603	HR-1	A1	Oak savanna/three awn	0.87	16.129

from small openings dominated by blue grama (*Bouteloua gracilis*) and surrounded by oak woodlands typical of the Texas Hill Country. For sample PF-1, both the leaf-litter layer (O-horizon) and upper A-horizon (A1) were analyzed. There was no litter layer remaining on the thin mineral soil at the PF-2 sampling locality. Two additional woodland samples were obtained from upland sites in the western portions of Kerrville-Schreiner State Park. The oak woodlands appeared to be more stable at these localities and both sites have thick leaf litter (O-horizon). The final modern sample analyzed came from Hall's Ranch in western Kerr County. The sample was collected from the open oak savanna above the Hall's Cave site. The range community had been heavily impacted by grazing at this locality. Standing grass composition was dominated by three-awns (*Aristida* spp.).

The modern data set suggests that soil phytolith assemblages can be used to infer change in the woodland-grassland composition. Although there is some variability among the sites, grassland assemblages have a lower woodland-grassland ratio than do the woodland samples (see Table 41-2). Average woodland-grassland ratio values for the grassland assemblages (excluding SM-2, the successional hackberry woodland) is less than 10. The average value for the woodland sites is greater than 20. If the low values obtained for the Pedernales Falls State Park A1 horizon samples are omitted, the average value is about 23. Except for the abnormally low Pedernales Falls State Park samples, the range of values within the woodlands group also conforms with expectations. More open woodlands such as Hall's Ranch have lower values. The Kerrville-Schreiner

State Park with denser, more-stable woodland had the highest values. It is unclear why the woodland-grassland ratio values for the Pedernales Falls State Park samples were low. It may be a reflection of recent changes in vegetation resulting from land use or of erosion and soil loss. Overall, these data suggest that this measure may be worth further development. The data suggest a local spatial scale for the formation of the woodland assemblages.

Modern grass phytolith assemblages from these localities corroborate observations from elsewhere in the Great Plains (Fredlund and Tieszen 1994). As is the case for specific pollen taxa, individual phytolith types must be individually calibrated to biomass or percent cover of the taxa which produces them. The lobate forms (Simple Bilobates, Panicoid-type, Cross, and Other Lobate forms) could be considered as "underrepresented" while the short-grass saddle-type phytoliths appear "overrepresented" (Table 41-3). The percentage of all tall-grass phytolith types typically ranges between 18 to 25 even where tall-grass taxa dominate. Percentages of saddle types characteristic of short grasses are at least twice as high (averaging 53.5%), even though local short-grass biomass may be relatively low. These differences are probably primarily the result of differential production but may be affected by other factors including transportation and preservation.

Analysis of the Stratigraphic Column

Description and discussion of the phytolith record follows the stratigraphy defined by changes in the sediments,

TABLE 41-3
Modern Sample Data: Percentage of Grass Short Cells by Phytolith Morphotype

Field No.	Horizon	Keeled	Rondel	Rectangle	Sinuate	Saddle	Stipa-type	Simple Bilobate	Panicoid-type	Cross	Other Lobate Forms	Irregular Short Cells	Count
SM-1	A1	4.85	15.30	4.48	0.75	50.00	3.73	10.45	5.60	1.87	1.49	1.49	268
SM-2	A1	6.59	17.58	5.13	0.73	40.29	7.69	14.65	5.13	0.37	0.73	1.10	273
IP-1	A1	6.28	14.49	4.83	0.48	54.11	3.38	7.25	7.25	1.45	0.48	0.48	207
IP-2	A1	4.24	9.75	3.81	0.85	61.44	2.97	10.59	5.93	0.00	0.85	0.42	236
IP-3	A1	5.00	9.17	3.75	0.83	65.83	1.25	5.42	7.50	0.42	0.42	0.42	240
IP-4	A1	5.91	19.55	5.45	1.82	41.82	2.73	10.45	8.18	2.27	0.45	1.82	220
WL	A1	5.81	13.37	6.40	1.16	59.88	1.16	6.98	4.07	0.00	0.58	1.16	172
PF-1	O	7.21	13.68	4.98	0.25	41.04	7.46	8.96	11.44	1.49	2.24	1.24	402
PF-1	A1	5.42	11.19	2.03	0.68	50.85	3.05	12.20	12.88	0.68	4.41	0.34	295
PF-2	A1	6.49	11.69	1.73	0.00	61.90	3.03	6.93	6.49	1.30	0.87	0.43	231
KS-1	O	7.97	13.77	2.17	0.36	59.78	1.81	4.71	7.61	1.09	0.72	0.36	276
KS-1	A1	8.56	9.73	2.33	0.78	62.26	1.95	6.61	5.45	0.39	1.17	1.17	257
KS-2	O	7.39	12.17	2.17	0.43	63.91	1.30	3.91	6.96	0.43	1.30	0.43	230
KS-2	A1	8.90	18.86	1.78	1.78	60.14	0.71	3.56	2.49	0.71	0.36	1.07	281
HR-1	A1	4.52	14.84	1.94	1.94	50.97	7.10	9.68	6.45	0.65	1.29	1.29	155
Average		6.65	13.64	3.58	0.82	53.50	3.26	8.57	7.19	1.35	1.15	0.87	252

soil, and archeology of the site. Generally, change in the phytolith record does reflect the Wilson-Leonard stratigraphy, although the stratigraphic units do not necessarily coincide with the natural zonation of the phytolith record.

Phytolith Recovery and Preservation

The first step in the analysis of the stratigraphic column is the evaluation of phytolith preservation. Two criteria are used: percent extracted weight and a visual assessment of preservation (Table 41-4). Three variables affect the percent

weight of phytoliths from the Wilson-Leonard samples: production and deposition, ground surface stability (or instability), and the rate of phytolith dissolution and destruction. The primary factor shaping the percent weight recovery curve in the lower strata (below Unit III) is hypothesized to be progressive destruction by dissolution through time (Figure 41-1). Although there is some variability in recovery, the trend through this portion of the record is one of progressive destruction. Variability in phytolith content, as measured by percent extracted weight, has no single cause. Preservation probably does impact the lower portion of Unit IIIa.

TABLE 41-4

Phytolith Recovery, Preservation, and Woodland-Grassland Ratios for the
Excavation Unit 12 Profile and Exploratory Deeper Samples

Unit	Field No.	Lab No.	Depth	Weight	Preservation	Woodland-grassland Ratio	Unit	Field No.	Lab No.	Depth	Weight	Preservation	Woodland-grassland Ratio
IIIc	WL57	93010512	97.36	0.69	excellent	84.42	II	WL21	93020212	95.60	0.12	adequate	125.00
IIIc	WL56	93010511	97.32	0.67	excellent	49.48	Isi-c	WL20	93020211	95.56	0.14	adequate	227.27
IIIc	WL55	93020412	97.28	0.45	excellent	25.93	Isi-c	WL19	93020210	95.49	0.12	adequate	227.68
IIIc	WL54	93010509	97.22	1.05	excellent	25.91	Isi-c	WL18	93020209	95.44	0.15	adequate	263.16
IIIc	WL53	93010508	97.15	0.99	excellent	20.94	Isi-c	WL17	93020208	95.38	0.21	poor	54.84
IIIc	WL52	93010507	97.10	1.05	excellent	29.76	Isi-c	WL16	93020207	95.33	0.14	adequate	168.75
IIIc	WL51	93010506	97.05	1.25	excellent	16.67	Isi-c	WL15	93020206	95.28	0.29	poor	223.21
IIIc	WL50	93010505	97.03	1.22	excellent	20.00	Isi-c	WL14	93020205	95.23	0.07	poor	476.19
IIIc	WL49	93010504	97.00	1.30	excellent	26.90	Isi-c	WL13	93020204	95.16	0.12	poor	250.00
IIIc	WL48	93010503	96.94	1.46	excellent	20.49	Isi-c	WL11	93020202	95.15	0.15	poor	1333.33
IIIc	WL47	93010502	96.90	1.45	excellent	22.25	Isi-c	WL12	93020203	95.10	0.12	poor	875.00
IIIc	WL46	93010501	96.86	1.29	excellent	24.15	Isi-c	WL10	93020201	95.09	0.20	poor	300.00
IIIb	WL45	93010612	96.80	1.35	excellent	22.73	Isi-c	WL09	93020410	95.07	0.21	poor	n/a
IIIb	WL44	93010611	96.72	1.05	good	20.75	Isi-c	WL08	93020409	95.03	0.29	poor	n/a
IIIb	WL43	93010610	96.68	1.02	excellent	35.18	Isi-c	WL07	93020408	95.00	0.15	poor	29.41
IIIb	WL42	93010609	96.64	0.97	good	33.85	Isi	WL06	93020407	94.90	0.17	poor	81.08
IIIb	WL41	93010608	96.60	0.85	good	42.47	Isi	WL05	93020406	94.81	0.21	poor	n/a
IIIb	WL40	93010607	96.56	0.84	good	20.88	Isi	WL04	93020405	94.76	0.09	poor	n/a
IIIb	WL39	93010606	96.52	0.57	good	13.16	Isi	WL03	93020404	94.71	0.14	adequate	24.69
IIIa	WL38	93010605	96.47	0.47	good	77.67	Isi	WL02	93020403	94.61	0.09	poor	n/a
IIIa	WL37	93010604	96.42	0.37	adequate	44.27	Isi	WL01	93020402	94.51	0.06	poor	n/a
IIIa	WL36	93010603	96.38	0.41	adequate	57.77	Isi	WL00	93020401	94.41	0.06	adequate	31.25
IIIa	WL35	93010602	96.33	0.54	adequate	41.67	Isi	WL62	92101607	n/a	0.02	poor	152.54
IIIa	WL34	93010601	96.27	0.30	adequate	78.13	Igl	WL73	92101608	n/a	0.04	poor	n/a
IIIa	WL33	93011512	96.22	0.35	adequate	68.50	Igl	WL224	93102801	n/a	0.02	barren	n/a
IIIa	WL32	93011511	96.17	0.35	adequate	88.42	Igl	WL225	93102802	n/a	0.01	poor	n/a
IIIa	WL31	93011510	96.11	0.34	adequate	85.57	Igl	WL226	93102803	n/a	0.01	poor	n/a
IIIa	WL30	93011509	96.05	0.34	adequate	120.53	Igl	WL227	93102804	n/a	0.02	poor	n/a
IIIa	WL29	93011508	96.00	0.36	adequate	108.28	Igl	WL228	93102805	n/a	0.01	poor	n/a
IIIa	WL28	93011507	95.95	0.32	adequate	77.27	Igl	WL229	93102806	n/a	0.01	poor	n/a
IIIa	WL27	93011506	95.91	0.30	adequate	104.32	Igl	WL230	93102807	n/a	0.02	barren	n/a
IIIa	WL26	93011505	95.87	0.31	adequate	33.33	Igl	WL231	93102808	n/a	0.02	poor	n/a
II	WL25	93011504	95.83	0.29	adequate	68.94	Igl	WL232	93102809	n/a	0.02	poor	n/a
II	WL24	93011503	95.79	0.24	adequate	115.04	Igl	WL233	93102810	n/a	0.02	poor	n/a
II	WL23	93011502	95.72	0.29	adequate	101.27	Igl	WL234	93102811	n/a	0.01	poor	n/a
II	WL22	93011501	95.65	0.24	adequate	106.80	Igl	WL234	93102812	n/a	0.01	barren	n/a

Note: Depth is in meters relative to datum; weight is expressed in percentage of air dry weight of sediment; woodland ratio equals large arboreal cell count divided by grass short-cell count times 100.

FIGURE 41-1. Percent weight of extracted phytoliths by depth. Percentages are based on the unadjusted weights of the recovered phytolith fraction (specific gravity less than 2.35) and air-dried weights of sediment subsample processed.

However, the peak in recovery at the IIIb/IIIc boundary and the lower percentages above (Unit IIIc) are probably not related to changes in preservation. These fluctuations in phytolith content are probably a reflection of both changing phytolith production and surface stability. Because of the inequality of phytolith production in grasslands and in woodlands, increases in production should be related to increases in grassland cover. The question of surface stability is addressed by the soils and geomorphic studies. Note that much of the modern surface soil was absent from this profile and therefore the increase in phytolith content typical of surface soils is missing.

Progressive decay with depth (or time) is also apparent in the visual ratings of phytolith preservation (see Table 41-4). Preservation was judged to be "excellent" throughout Unit IIIc, and "good" throughout most of IIIb. Preservation continued to decline throughout Unit IIIa and II but remained "adequate" down to the middle of Unit Isi-c. Phytoliths were present but very poorly preserved below this level, and complete quantitative results are therefore unobtainable. Because of poor preservation, the lower column of samples collected from excavation Square 55 was not analyzed beyond a few exploratory samples

(WL62 and WL73). Poor preservation also characterized the samples from the lowermost unit (Igl).

The Woodland-Grassland Ratio

The woodland-grassland ratio was constructed to assess relative change in the balance between woodlands and grasslands (see Table 41-4). Although this ratio had high intersample variability, a line chart using a simple, 3-sample running average reduces the individual sample variation and exhibits significant temporal zonation (Figure 41-2). The data are interpreted as indicating the dominance of local woodland vegetation during the deposition of the lower stratum (Unit Isi). This interpretation of the lower portion of the profile, however, comes with a caveat. Woodland-grassland ratio values in the lower portion of the profile may be affected by differential preservation and observed change in values could be an artifact of changing preservation. This alternative interpretation is based on the assumption that large, block phytolith forms will persist while smaller grass short-cell forms will be more quickly dissolved. (Little is currently known about the taphonomy and dissolution of phytoliths, and it is possible that grass phytoliths are more susceptible to dissolution than are some large arboreal forms.) I assume that the observed change is not caused by differential preservation but reflects a real change in the balance between grassland and woodlands.

The general change in the woodland-grassland ratio shows a general grassland expansion throughout most of

FIGURE 41-2. Woodland-grassland ratio by depth. This ratio is the large arboreal phytolith count divided by the total grass short-cell count times 100. Note log scale used for ratio.

the Holocene (Unit Isi-c through Unit IIIb). This expansion began during the early Holocene (ca. 9500 B.P.) and continued into the mid Holocene (ca. 4000 B.P.). The woodland-grassland ratio signal also suggests that there was a significant increase in the rate of grassland expansion around 8700 B.P. (the upper portion of Unit II). The signal reaches its minimum in the mid to late Holocene (Units IIIb and IIIc, ca. 6000 to 2000 B.P.). Values in this portion of the record fall within the range obtained in the analysis of modern open-woodland samples. There is also a strong suggestion of the re-expansion of woodlands during the late Holocene (upper portion of Unit IIIc, after 2000 B.P.).

Distinctive Nongraminoid Phytolith Forms

The occurrence of distinctive arboreal and other diagnostic forms provides additional evidence for local woodland vegetation composition (Table 41-5). Forms are grouped into five anatomical categories: polyhedral or polyhedral epidermal and mesophyll forms (Figure 41-3a and b), forms associated with epidermal hair forms (Figure 41-3c), silicified trachiar elements (Figure 41-3d), unknown diagnostic forms (Figure 41-3e and f), and Palm-like forms (Piperno 1988). The listed and illustrated morphotypes represent only a fraction of the total number of types potentially distinguishable in the Wilson-Leonard assemblages. Further exploration of the phytoliths produced by the flora of Texas is needed to identify these distinctive types. Because these types occur in such low frequencies, they are presented as counts rather than percentages.

One of the most distinctive polyhedral epidermal types observed is the *Celtis* (hackberry) type (Bozarth 1992). This thick epidermal plate typically has five sides of differing lengths and a distinctly echinate surface (see Figure 41-3a1). The finely raised points of the plate surface often translate into ridges along the plate sides. At the lower focal plane under higher magnifications (630X), the fine-grained echinate pattern often appears reticulated (see Figure 41-3a2). These forms appear somewhat more frequently in Units IIIb and IIIc but are present down into Unit II (see Table 41-5).

Other types of epidermal and mesophyll forms include distinctive polyhedrals and "puzzle piece" epidermal cells, frequently occurring in articulated epidermal fragments (Bozarth 1992; Geis 1973). Tentative identification of Wilson-Leonard forms include *Quercus* (oaks), *Ulmus* (elms), and *Fraxinus* (ash). No single form appears more frequently in any portion of the profile. The lower counts of this group in deeper samples may also be an artifact of progressive dissolution and destruction with depth.

Silicified epidermal hairs and hair bases comprise the second anatomical group of phytoliths (see Table 41-5). The following four subgroupings are used: silicified hair bases, five-sided plate, silicified hair fragments, other undifferentiated fragments. Piperno (1988) found this anatomical group

of phytoliths to be especially useful in identifying individual plant taxa in the neotropical rain forest assemblages. Probable taxa observed at Wilson-Leonard include *Ulmus* (elm), *Maclura* (osage orange or bois d'arc), and *Celtis* (hackberry). Again, there is no pronounced stratigraphic pattern in the occurrence of this group of phytoliths.

Silicified trachiar elements comprise another common component of the Wilson-Leonard assemblage. These solidly silicified vascular elements from woody tissues are generally cylindrical with spiraled exteriors (see Figure 41-3d). Present throughout the profile is one large (up to 120µm long) distinctive subtype with a large triangular cross section (8 to 12µm diameter). The distinctiveness and consistency of this subtype suggests that it is produced by a single plant taxon, the identity of which is unknown. The other groups are less consistent and probably related to a number of different taxa. The small, branching forms observed are consistent with those from *Artemisia* (sage) but are probably produced by any number of forbs (Bozarth 1992).

Several unclassified forms are of special interest because of their distinctiveness. They may represent the exploitation of specific plant resources at the site or merely components of the local vegetation. One of the most unusual is a small (12 to 15µm maximum diameter) conical form (see Table 41-5). This type has a convex base and six to eight faces converging on a small concave platform (see Figure 41-3f). These delicate-looking forms appear spongy rather than solidly silicified. A distinct pore or cavity occurs at the base of each of the scalloped faces. This form is most likely a hair-base or seed-coat structure.

A second distinctive morphotype is also probably associated with hair bases or analogous anatomical structure of some specific taxon (see Table 41-5). This elongated, six- or eight-sided, tear-drop-shaped form is typically 15 to 20µm in length (see Figure 41-3e). The base of the form is semihollow and has a dark, spongy-looking texture. The smaller end, when unbroken, supports a number of fine clavate (club-like) structures. The form is often broken in half, but both portions are distinctive and readily distinguished.

A third distinctive but rare form is a very large (>100µm) cylinder with rounded ends (see Table 41-5). No complete examples were found, and its total dimensions and shape remain undefined. The diameter of fragments are typically 15 to 20 microns. This morphotype is solidly silicified and is without cavities or openings. The sides of the cylinder are irregularly faceted or "scalloped" (but not fluted). Its anatomical origin is as uncertain as its taxonomic identification. The structure is likely part of a silicified hair, thorn, or other armored structure. It may also result from silicification of a large vascular cell. It does not appear to be a sponge spicule. This form is rare throughout the profile but observed most frequently in several consecutive samples from Unit II.

The two remaining unknown forms listed separately may also represent silicified vascular tissues (see Table 41-5).

TABLE 41-5
Occurrence (Counts) of Distinctive Arboreal and Other Diagnostic Morphotypes

No.	A1	A2	B1	B2	B3	B4	C1	C2	C3	D1	D2	D3	D4	D5	E
57	3	1	2	1	0	0	1	0	1	4	0	0	1	0	0
56	1	1	2	3	1	0	1	0	1	1	0	0	0	0	0
55	1	1	0	0	0	0	1	0	0	4	1	1	2	0	0
54	1	1	1	0	0	0	2	0	1	1	0	0	0	0	0
53	2	0	4	1	0	0	1	0	0	4	0	0	1	0	0
52	2	0	1	0	0	0	0	1	0	2	0	1	0	1	0
51	2	2	3	3	4	0	7	0	4	8	2	0	1	0	0
50	6	3	3	0	2	0	4	0	0	6	2	0	1	2	0
49	5	0	2	1	2	0	4	2	1	4	0	0	0	1	0
48	1	0	3	0	0	0	1	0	0	5	0	0	1	1	0
47	3	3	1	2	0	0	4	0	1	3	1	0	4	1	0
46	2	0	2	0	6	0	0	0	0	8	2	0	0	4	0
45	1	2	1	0	3	0	0	0	0	4	9	0	1	0	0
44	3	0	1	0	1	0	3	0	0	4	5	0	1	2	0
43	5	2	1	0	0	0	2	0	0	3	0	0	0	0	0
42	3	4	3	0	1	0	6	2	5	2	0	0	0	0	0
41	1	0	7	0	4	1	5	0	2	6	4	0	0	1	0
40	4	2	1	0	3	0	1	0	1	4	2	0	0	0	0
39	4	2	2	0	1	0	3	0	1	4	2	0	0	0	0
38	3	6	5	1	2	1	3	0	0	11	7	0	0	2	0
37	2	3	3	0	0	2	6	0	0	5	3	1	0	1	0
36	3	2	2	1	1	0	1	0	0	7	2	0	0	1	0
35	2	1	2	0	2	0	3	0	0	3	0	0	0	0	0
34	1	2	3	0	3	2	5	0	1	6	0	0	0	0	0
33	3	1	3	0	3	1	1	0	0	1	2	0	0	3	0
32	2	0	2	0	2	0	2	0	0	0	1	0	0	1	0
31	0	2	3	0	1	0	4	0	0	1	3	0	1	1	0
30	0	1	4	0	1	1	6	0	1	2	1	0	0	0	0
29	1	4	2	1	1	0	1	0	0	0	1	0	0	0	0
28	1	1	2	0	1	0	0	1	1	2	4	0	0	0	1
27	0	1	0	0	3	0	2	0	1	0	0	0	0	1	1
26	0	2	2	0	2	0	1	0	2	0	3	0	0	0	0
25	2	2	1	2	1	2	2	0	0	3	0	0	0	1	0
24	1	3	1	1	2	0	0	0	1	1	2	0	1	0	0
23	0	6	5	1	3	1	3	0	3	0	1	2	0	0	1
22	0	3	2	2	3	0	1	0	0	1	0	1	0	0	0
21	2	3	1	1	3	0	5	1	1	2	1	0	0	0	0
20	1	2	1	0	1	1	1	0	1	0	1	1	3	1	0
19	0	1	0	0	4	0	1	0	1	0	0	0	0	1	2
18	1	5	2	0	5	3	2	0	1	1	0	0	0	2	1
17	0	3	3	0	1	0	0	0	0	1	0	1	0	0	0
16	0	4	1	0	1	0	0	0	0	0	0	0	0	0	0
15	0	1	1	0	3	2	1	0	1	1	0	0	0	0	0
14	0	6	1	0	2	0	0	0	0	0	2	1	0	0	3
13	0	2	0	0	1	0	0	0	0	0	0	1	0	0	1
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	1	0	2	1	0	0	0	0	1	0	0	1	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
03	0	0	0	3	1	0	3	0	0	0	0	0	0	1	3
00	0	2	0	3	0	0	5	0	3	0	0	0	0	0	0

Key: A = polyhedral epidermis and mesophyll forms: (A1) *Celtis*-type; (A2) other undifferentiated. B = Epidermal hairs and hair bases: (B1) silicified hair bases; (B2) five-sided plate; (B3) silicified hair fragments; (B4) other undifferentiated hairs and hair bases. C = Silicified tracheary elements: (C1) large tracheas with triangular cross section; (C2) small branching forms; (C3) other trachea forms general. D = Unclassified silicified forms: (D1) conical form with 6 to 8 faces and pores; (D2) tear-drop-shaped hair base(?) structure; (D3) very large cylindrical elongate with faceted or scalloped sides; (D4) large elongate triangular; (D5) four-sided, spirally arranged clavate, along straight cylinder. E = Palm-type.

FIGURE 41-3. Diagnostic phytolith forms. (a₁) *Celtis* epidermal plate at high focus (WL-50); (a₂) *Celtis* epidermal plate at low focus (WL-50); (b) silicified "quadrilateral" epidermal cell (WL-49); (c) unknown silicified hair base (WL-39); (d) large silicified tracheid with triangular cross section (WL-34); (e) unknown tear-drop-shaped form (WL-47); (f₁) unknown conical forms (WL-50); (f₂) unknown conical forms (idealized); (g) bulliform cell (WL-50); (h) common tricome type (WL-49); (i, j) common crenate subtypes (WL-49).

The first is a smaller (18 to 24µm) elongated form with sharp, triangular cross sections. The other is a four-sided, spirally arranged set of gumi or clave attached to a central straight cylinder. Both forms are solidly silicified. It may not be possible to attribute either of these forms to a single plant taxon.

The final phytolith morphotype listed individually consists of the echinate spheroids typically related to the palms. This heavily silicified, spheroidal, echinate morphotype is readily identifiable (Piperno 1988). This form is also rare throughout the Wilson-Leonard profile but appears to be relatively more common in Units I and II. Again, this appearance of being more common in the lower samples may be an artifact of the differential preservation of this solidly silicified form. As palms are extralocal in the region, its occurrence is problematic at Wilson-Leonard. It is possible, but unlikely, that it represents human import of palm leaves from several hundred miles to the southeast where a single species of palm is native. It is far more likely that this form is either being recycled fossil from older rocks or is a form produced by other, as yet unrecognized plant taxa.

Grass Short-cell Phytolith Assemblages

Changes in the grass short-cell phytolith assemblages are hypothesized to represent climatically driven changes in the regional grassland composition. Probably due to low (less than 200 count) short-cell sums, the sample-to-sample variability of percentages is higher than typically encountered (Table 41-6). Unusual local vegetation and/or human alteration of local vegetation and plant use may also contribute to the higher than normal variability. A strong regional signal is discernible even through this high variability (Figure 41-4). Although the early Holocene grassland was dominated by cool-weather-adapted C_3 grasses (represented by high percentages of conical forms), the grassland composition also included at least some tall and short C_4 grasses as represented by the percentages of saddle and lobate types. It is likely that some of these C_4 grasses were locally present even during the late Pleistocene. Other C_4 grass species may have migrated into the region during the early Holocene.

Changes in grassland composition are evident through Units Isi-c and II. The most important is the rise in relative frequencies of saddle-shaped forms indicative of the short grasses. A complementary decline in percentages of conical, rectangular, and crenate types match this rise. The rate of change is greatest approaching the Unit II/Unit III boundary. Saddle percentages jump from below 30% to levels over 50%. There is also a smaller, but significant, increase in the lobate forms diagnostic of the C_4 tall-grasses at this same boundary. This change represents a major shift in climate toward warmer and drier conditions.

Consistencies among short-cell assemblages suggest that climatic conditions were comparatively stable throughout the deposition of Units IIIa, IIIb, and IIIc. Saddle per-

centages from this portion of the record fall within the levels obtained in the analysis of the modern Texas soil samples. However, percentages of some other grass short-cell forms are beyond the range documented in the modern soil assemblages from Texas or elsewhere. Specifically, the Wilson-Leonard assemblages have significantly higher percentages of crenate forms than observed elsewhere. Crenate percentages decline only slightly through time, and remain greater than 5% throughout Unit III. This irregularity could be explained either by some local, atypical stream-side or woodland understory grass community or by human behavior. The low variability of the crenate forms present are dominated by two distinctive subtypes (see Figure 41-3). This suggests that only one or two taxa of grass are contributing. The lack of modern analogs for these fossil assemblages makes precise qualitative estimates of climate change problematic.

Other Graminoid Morphotypes

Graminoid grasses and sedges produce a variety of other distinctive morphotypes in addition to the short-cell forms (Table 41-7). These include elongates, bulliform cells, trichomes, and sedge plates. There are no clear patterns to the occurrence of these grass forms. The frequency of sedge forms is greatest in the upper levels of Unit IIIb. Because sedges are not always wet-site indicators, this zonation does not necessarily indicate increased mesic conditions.

Aquatic Silicate Microfossils

The occurrence of aquatic, silicate microfossils (diatom, crysophytes, and sponges) was also documented (see Table 41-7). Many of the diatom and crysophyte taxa may be local soil organisms rather than standing-water organisms. Others are probably wind or water deposited along with the freshwater sponge forms. There is no clear pattern to diatom occurrence. Crysophytes show a clear increase in the upper portions of Unit IIIb. The environmental implications of this zonation are unclear at this time. Sponge spicules are relatively more common in the lower samples of Unit II and in Unit I. This may be due either to the increased alluvial deposition and influence in the lower strata, or to the more-mesic regional conditions. It is more likely however, that this increase is a artifact of preservation. Sponge spicules are heavily silicified and therefore more resistant to dissolution.

Analysis of Archeological Feature Samples

Only 3 of the 13 feature samples analyzed contained significant reasonably well-preserved phytolith assemblages (Table 41-8). As with the primary stratigraphic column, samples from the lower depositional units (Isi) had extremely poor preservation, as did the Paleoindian burial (Burial 2). Most phytolith assemblages from the upper depositional

TABLE 41-6
Grass Short-cell Phytolith Percentages

Field No.	Depth	A	B	C	D	E	F	G	H	I	J	K	Count
WL57	97.36	8.44	27.92	5.19	0.00	46.75	2.60	3.90	3.25	0.65	0.65	0.65	154
WL56	97.32	6.25	12.50	3.65	4.69	62.50	1.04	4.17	3.65	0.52	0.52	1.04	192
WL55	97.28	11.50	23.89	3.54	4.42	48.67	1.77	1.77	2.65	0.00	0.00	1.77	113
WL55	97.28	7.05	24.07	3.73	8.71	47.30	0.83	3.32	3.32	0.83	0.00	0.83	241
WL54	97.22	7.77	22.80	5.70	5.18	48.19	1.04	5.18	2.07	0.00	0.00	2.07	193
WL53	97.15	6.81	21.99	5.24	5.24	52.88	1.05	2.09	3.66	0.52	0.52	0.52	191
WL52	97.10	13.10	21.43	3.57	6.55	39.88	2.98	5.36	5.36	0.60	0.60	1.19	168
WL51	97.05	10.48	14.76	3.33	4.76	58.57	1.90	2.86	2.86	0.00	0.95	0.48	210
WL50	97.03	7.59	18.62	3.45	10.69	45.52	1.72	3.45	5.17	2.41	1.38	1.03	290
WL49	97.00	9.04	16.95	6.21	3.95	51.98	1.69	5.08	2.82	1.13	0.00	1.13	177
WL49	97.00	7.02	23.25	4.82	7.02	48.68	1.75	2.19	3.95	0.88	0.00	0.44	228
WL48	96.94	8.29	17.56	2.93	5.37	56.59	1.95	3.41	1.95	0.49	0.98	1.46	205
WL47	96.90	9.38	16.35	4.29	8.31	52.01	1.07	4.29	2.14	0.27	1.34	1.07	373
WL46	96.86	8.30	19.62	3.02	7.55	51.70	1.51	3.77	3.40	0.38	0.75	0.38	265
WL45	96.80	13.13	21.72	2.02	9.60	43.94	2.02	3.03	3.03	0.51	1.01	0.51	198
WL44	96.72	7.47	14.11	2.90	8.30	57.26	2.49	2.07	2.90	0.41	1.24	1.24	241
WL43	96.68	10.05	24.12	3.52	7.04	46.23	2.01	2.51	3.52	0.00	0.50	0.50	199
WL42	96.64	14.36	22.05	4.62	8.72	35.90	4.10	4.10	5.13	0.00	0.51	1.03	195
WL41	96.60	9.65	17.37	4.25	7.34	51.35	1.54	4.25	2.70	0.00	0.77	0.77	259
WL40	96.56	7.14	19.23	2.75	14.84	43.41	2.75	2.20	4.40	0.55	2.20	1.10	182
WL39	96.52	14.04	19.74	2.63	7.46	46.05	1.75	3.51	3.51	0.44	1.32	0.44	228
WL38	96.47	7.28	29.13	4.37	11.65	35.92	1.94	4.85	3.40	0.00	0.49	1.46	206
WL37	96.42	6.77	21.35	3.13	5.73	51.04	2.08	3.65	4.17	0.52	1.04	1.04	192
WL36	96.38	6.77	19.52	4.78	6.77	51.79	1.59	2.79	3.98	0.40	0.80	1.20	251
WL35	96.33	7.46	17.11	4.39	5.70	55.26	2.19	2.63	3.95	0.00	0.44	0.88	228
WL34	96.27	6.25	21.48	5.86	7.81	47.27	1.17	3.13	6.25	0.00	0.39	0.78	256
WL33	96.22	9.00	26.50	4.50	10.50	39.50	2.00	3.50	3.50	0.00	0.00	1.00	200
WL32	96.17	7.89	26.32	5.26	5.26	46.84	1.05	2.63	2.63	0.53	1.05	1.05	190
WL31	96.11	6.47	20.90	4.98	5.97	50.75	1.49	3.98	3.98	0.50	0.00	1.00	201
WL30	96.05	7.95	29.80	7.28	7.95	39.07	1.99	1.99	2.65	0.66	0.66	0.66	151
WL29	96.00	7.64	20.38	5.10	4.46	52.87	1.91	3.18	3.82	0.00	0.64	0.64	157
WL28	95.95	5.30	18.94	7.58	5.30	53.79	1.52	3.79	3.03	0.00	0.76	0.76	132
WL27	95.91	10.07	33.81	5.76	7.19	32.37	2.16	2.16	3.60	0.00	1.44	2.16	139
WL26	95.87	9.20	30.46	5.75	10.92	35.06	2.30	2.30	2.87	0.00	0.00	1.15	174
WL25	95.83	9.85	28.03	8.33	9.09	37.88	1.52	3.03	0.76	0.00	0.00	1.52	132
WL24	95.79	7.08	45.13	10.62	7.96	23.89	1.77	0.00	0.88	0.88	0.88	1.77	113
WL23	95.72	6.33	34.81	10.76	15.19	27.22	1.90	1.90	1.90	0.00	1.27	0.00	158
WL22	95.65	10.68	32.04	11.65	10.68	28.16	0.97	1.94	1.94	0.00	0.97	1.94	103
WL21	95.60	12.50	31.58	7.89	5.92	33.55	2.63	4.61	0.66	0.00	0.00	0.66	152
WL20	95.56	12.40	40.50	6.61	6.61	26.45	0.83	1.65	2.48	0.83	1.65	1.65	121
WL19	95.49	10.71	40.18	7.14	9.82	26.79	1.79	0.89	1.79	0.00	0.00	0.89	112
WL18	95.44	11.40	38.60	7.89	10.53	20.18	2.63	2.63	2.63	0.88	0.88	2.63	114
WL17	95.38	9.68	29.84	5.65	9.68	36.29	3.23	2.42	3.23	0.00	0.00	0.00	124
WL16	95.33	10.00	36.25	11.25	7.50	30.00	0.00	2.50	1.25	0.00	0.00	1.25	80
WL03	94.71	11.11	28.40	11.11	6.17	29.63	3.70	3.70	3.70	0.00	1.23	1.23	81
WL00	94.41	11.25	22.50	13.75	8.75	33.75	2.50	2.50	1.25	1.25	0.00	2.50	80
WL62		6.78	25.42	15.25	3.39	32.20	3.39	5.08	5.08	0.00	1.69	1.69	59

Key: A = keeled; B = rondel; C = rectangle; D = crenate; E = saddles; F = stipa-type; G = simple bilobates; H = panicoid-type; I = cross; J = other lobate forms; K = irregular short-cell forms.

units (IIIa, b, and c) are interpretable. As expected, the better-preserved samples also tend to be the assemblages with higher percentage of weight extracted (see Table 41-8). The one exception to this is feature sample 181 (Unit IIIa).

Ideally, ethnobotanical inferences based on phytolith assemblage data begin with comparisons to contemporane-

ous samples from nonarcheological context (Lawlor 1995). Although we do not have nonarcheological comparative samples, we can make some comparisons with the stratigraphic column that represents the average composition within the site. Thus, any phytolith signal unique to features resulting from specific function or plant use should be revealed. This

FIGURE 41-4. Grass short-cell phytolith percentages (based on the short-cell sum).

comparison is done subjectively rather than statistically for the current small feature sample.

Grass short-cell assemblages for two of the three feature samples fall within the expected range recognized from the corresponding stratigraphic samples (Table 41-9). Again the exception to this is feature sample 181 (Unit IIIa); the same sample that had relatively low percent extracted weight. This sample has lower than expected percentages of saddle forms and higher than expected conical forms. This short-cell form is not particularly diagnostic, which makes it difficult to infer which grasses are responsible. These differences do suggest that this sample is related to feature function. The next step is the search for consistencies among samples from this and similar features. An examination of nongrass phytolith forms is also important in interpreting feature samples. The nongrass phytolith assemblages did not contain any forms out of the ordinary, nor did the feature samples contain any "ordinary" nongrass forms in unusually high frequencies. Based on these preliminary data, we cannot fully address the problems of feature function or specific plant use associated with archeological features.

CONCLUSIONS

Phytolith analysis at the Wilson-Leonard site documents regional and local changes in vegetation. In the deepest strata, including the Leanne soil (Unit Isi-c), preservation is at its poorest, and little can be confidently inferred

from the surviving assemblages. The earliest assemblages that do survive are primarily from the upper portions of this zone (ca. 10,000 to 9500 B.P.). Composition of these assemblages suggests woodlands were more closed than today. Grass short-cell assemblages recovered from these lower strata indicate that although both tall and short C_4 grasses were present, the overall grassland composition was significantly different than any in Texas today. Cooler and more-mesic conditions than present are indicated. Phytolith preservation improves somewhat in the stratum immediately above the Leanne soil (Unit II). The overall assemblage composition is interpreted as woodlands but increasingly more open in structure. The grass phytolith assemblage also shows significant change during this critical period (ca. 9500 to 8700 B.P.). The primary change in grassland composition was the expansion of the xeric-adapted short grasses, most likely grama grasses (*Bouteloua* spp.). Within Unit IIIa (ca. 8700 to 6000 B.P.), the grassland composition reached the range observed in modern soil samples from the region. Preservation within this unit and all of those above is good to excellent. The data also suggest that throughout this time, woodlands continued to become more open. The overall vegetation composition reached its modern balance of woodlands and grassland within Unit IIIc (ca. 4000 B.P. to present). The overall composition of these assemblages is very similar to modern leaf-litter assemblages from Central Texas woodlands today. Identifiable arboreal taxa include oaks, elms, and hackberry. This unit also represents the maximum

TABLE 41-7

Other Graminoid Phytolith Forms and Aquatic-type Microfossils

No.	Other Graminoid Forms					Aquatic Silicate Microfossils		
	Elongates	Bulliform Cells	Tricomes	Other Graminoid Types	Sedge Plates and Tricomes	Diatom	Crysophyte	Sponge
57	9	3	4	0	0	0	1	1
56	14	2	3	0	1	1	0	3
55	31	2	8	0	1	0	1	0
54	19	3	3	0	0	0	1	0
53	16	2	2	0	0	0	2	0
52	31	6	5	1	2	1	6	1
51	26	3	7	0	3	1	18	2
50	20	4	9	1	1	2	7	0
49	35	2	8	0	4	4	12	1
48	19	3	3	0	0	1	28	0
47	24	3	3	0	4	9	26	1
46	23	4	5	0	4	2	20	0
45	18	3	3	0	1	0	8	0
44	29	2	8	0	1	4	10	0
43	27	4	2	0	1	0	2	0
42	42	2	5	0	1	6	2	0
41	18	2	1	0	1	0	7	0
40	20	4	5	0	0	3	2	0
39	13	1	3	0	0	4	3	1
38	27	4	6	0	1	0	3	0
37	17	5	6	1	0	0	3	1
36	25	6	7	0	0	0	5	0
35	12	3	4	0	0	5	12	1
34	33	5	5	0	0	0	5	0
33	36	13	5	1	4	2	9	0
32	30	4	4	0	4	2	3	1
31	32	7	7	0	0	0	2	2
30	23	8	9	0	1	0	0	0
29	42	6	5	1	1	0	3	2
28	27	7	4	0	0	0	0	0
27	15	6	4	1	0	2	1	0
26	39	4	5	0	0	1	0	4
25	37	4	6	0	1	0	2	2
24	30	10	8	1	0	0	2	3
23	70	4	8	0	3	2	1	1
22	36	3	3	0	1	2	1	1
21	29	3	7	0	0	0	5	0
20	39	9	9	0	0	3	3	7
19	37	5	7	0	0	1	2	3
18	58	5	5	0	0	0	2	3
17	16	4	4	0	1	0	1	1
16	43	3	4	0	1	1	0	0
15	32	4	3	0	0	1	1	6
14	12	8	7	0	0	0	1	2
13	18	4	5	0	0	1	0	0
12	8	0	0	0	0	0	0	0
11	16	2	1	0	0	0	0	1
10	3	0	0	0	0	0	0	0
06	30	0	2	0	0	1	3	1
03	36	2	4	0	0	2	4	0
00	18	1	3	0	0	0	3	0

TABLE 41-8
Phytolith Recovery and Preservation in Feature Samples

Lab No.	Field No.	Feature No.	Stratigraphic Unit	Preservation	% Weight Extracted	Woodland/Grassland Ratio
94090801	7	168	Isi	Poor	0.06	n/a
94090802	9	169	Isi	Absent	0.05	n/a
94090803	14	181	IIIa	Useable	0.11	108.19
94090804	22	Burial 2	Isi	Poor	0.06	n/a
94090805	23	Burial 2	Isi	Absent	0.10	n/a
94090806	28	Burial 2	Isi	Absent	0.05	n/a
94090807	29	Burial 2	Isi	Absent	0.04	n/a
94090808	31	Burial 2	Isi	Absent	0.05	n/a
94090809	33	204	IIIb	Good	0.93	16.24
94090810	47	236	IIIb	Absent	0.08	n/a
94090811	49	245	IIIa	Useable	0.90	173.08
94090812	52	252	Isi	Absent	0.06	n/a
94090813	53	255	Isi	Poor	0.17	n/a

TABLE 4-9
Grass Short-cell Percentages in the Feature Samples

Lab No.	Feature No.	Keeled	Conical	Rectangle	Crenate	Saddles	Stipa-type	Simple Bilobates	Panicoid-type	Other Lobates*	Total
94090803	181	11.86	32.20	5.08	8.47	36.44	1.69	2.54	1.69	0.00	171
94090809	204	6.60	14.72	2.54	4.06	58.88	3.55	7.61	1.02	0.51	197
94090811	245	15.09	18.87	5.66	1.89	50.94	1.89	3.77	1.89	0.00	53

phytolith concentration as measured by percent weight recovered. Curiously, there is no corresponding change in the grass short-cell assemblage. This suggests that the high phytolith content may not be solely attributable to increased production associated with grassland but may to some extent reflect increased surface stability. Although grass composition continued to remain steady in the upper strata (Unit IIIc), the balance between woodland and grassland appears to reverse its former trend. The record suggests local conditions became less open during this late Holocene period (post-2000 B.P.).

This record of vegetation and climatic change, as inferred from the Wilson-Leonard phytolith record, corroborates with other records of Holocene vegetation and climate change in Texas (Bousman 1994; Humphrey and Ferring 1994; Nordt et al. 1994; Robinson 1982 [summarized in Piperno 1988:184-187]). The degree of regional agreement among independent records suggests that climate is the primary factor driving vegetation change. As has been rightly pointed

out by Humphrey and Ferring (1994), the observed changes in vegetation may also be affected through changes in the regional fire regime. Both climatic and anthropogenic ignition contribute to the regional fire regime and the relative importance of these factors remains debatable. Changes in the fire regime, whatever its cause, may be especially important in affecting the woodland-grassland balance.

The close correlation of the Wilson-Leonard record with other independent records from the region also validates the use of phytolith methods for paleoenvironmental reconstruction. These other records affirm and provide confidence to this immature method. This is especially important in this instance which is hampered by poor preservation. The results suggest that future investments in phytolith analysis for the Texas region are warranted. This effort should include systematic investigation of phytolith production and identification and an expanded analysis of modern assemblages. With these additional data, it will be possible to infer even more from the Wilson-Leonard record.

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STABLE CARBON ISOTOPE ANALYSIS OF SOIL ORGANIC MATTER

by Glen Fredlund and Larry L. Tieszen

OBJECTIVES

Recent applications of stable carbon isotopic methods to Texas paleoenvironments have been encouraging (Humphrey and Ferring 1994; Nordt et al. 1994). Broad changes in Holocene vegetation and climate inferred from these records are supported by independent data sets (Bousman 1994; Bryant and Holloway 1985; Collins 1995:Table 2; Robinson 1982 [summarized in Piperno 1988:184-187]). Further corroboration was provided by the results of the phytolith record from the Wilson-Leonard site (see Chapter 41). Although there are some significant differences among these regional paleoenvironmental chronologies, overall there appears to be a movement toward a regional consensus (e.g., Bousman 1994; Nordt et al. 1994).

We hypothesized that stable carbon isotopic analysis of soil organic matter (SOM) from the Wilson-Leonard site should corroborate both the local phytolith record from the site and the emerging regional Holocene sequence. Given the chronology of the sediments, the Wilson-Leonard isotopic record was expected to display at least four distinctive features: (1) late Pleistocene-early Holocene (Units Isi and Isi-c) C_3 -dominated signal from woodlands; (2) a strong shift from woodlands toward warm-weather (C_4) grasslands centered around 8000 B.P. (Unit IIIa); (3) a strongly C_4 mid-Holocene thermal maximum (ca. 7000 to 3000 B.P., Unit IIIb); and (4) a re-expansion of woodlands, with minor fluctuations after 3000 B.P. (Unit IIIc).

METHODS

A six-sample stratigraphic column originally collected for phytolith analysis was used for the isotopic analysis. Initial processing of subsamples was performed at the University of Wisconsin Milwaukee, Soils and Physical Geography Laboratory. Isotopic analysis of the materials was done at the mass spectrometry laboratory at the Department of

Biology, Augustana College, Sioux Falls, South Dakota. Samples were sieved to remove gravel and other large materials before being hand ground with mortar and pestle. Protocol included processing of seven replicate subsamples (Table 42-1).

A homogeneous portion of each subsample was decarbonated with 1.0 N HCl and continuous stirring (up to 48 hours) until no effervescence under vacuum was detected. The treated sample was centrifuged at 12,000 x gravity, re-suspended in distilled water, and centrifuged. The resulting pellet of material was dried, pulverized, and loaded into tin cups for combustion under pure oxygen and at high temperatures in the Carlo Erba CHN analyzer. Samples were of variable sizes to provide adequate carbon for isotopic analysis. The combusted sample was separated into CO_2 and N_2 gases and quantified with a gas chromatographic column. These provided concentrations of C and N for C:N calculations and elemental composition.

The combustion products were passed through a drying column, and CO_2 was trapped at liquid nitrogen temperature in the triple trap of a VG SIRA-10 Isotope Ratio Mass Spectrometer (IRMS). Remaining gases were removed under high vacuum, and the CO_2 was analyzed by the IRMS (Tieszen and Fagre 1993a). The isotope ratio is presented as the $\delta^{13}C$ values where:

$$\delta^{13}C (\text{‰}) = ((R_s - R_p) / R_p) \times 1000$$

R_s = ratio of ^{13}C in the sample

R_p = ratio of ^{13}C in the standard

RESULTS AND INTERPRETATION

This ratio diagnostically distinguishes between C_3 and C_4 species with mean values in native prairie species in North America of -26.7‰ for C_3 species and -12.6‰ for C_4 species (Tieszen 1994). This ratio effectively serves as a label for the

TABLE 42-1

Isotopic Data for the Wilson-Leonard Stratigraphic Column

Unit	Field No.	Depth	%N	%C	C:N	$\delta^{13}\text{C}$	Unit	Field No.	Depth	%N	%C	C:N	$\delta^{13}\text{C}$
IIIc	WL57	97.36	0.35	5.07	14.48	-22.66	IIIa	WL27	95.91	0.06	1.00	16.34	-23.41
IIIc	WL56	97.32	0.37	5.38	14.62	-22.75	IIIa	WL26	95.87	0.05	0.90	16.57	-23.55
IIIc	WL55	97.28	0.34	5.42	15.87	-23.05	II	WL25	95.83	0.07	1.12	15.64	-23.56
IIIc	WL54	97.22	0.27	4.38	15.97	-22.86	II	WL24	95.79	0.07	1.00	15.00	-23.63
IIIc	WL53	97.15	0.25	4.05	16.34	-22.69	II	WL23	95.72	0.06	0.82	14.63	-23.49
IIIc	WL52	97.10	0.20	3.47	16.93	-22.50	II	WL22	95.65	0.07	0.96	13.53	-23.45
IIIc	WL51	97.05	0.19	3.23	17.13	-22.53	II	WL21	95.60	0.07	0.91	12.76	-23.36
IIIc	WL50	97.03	0.19	3.07	15.95	-22.63	Isi-c	WL20	95.56	0.07	0.85	12.22	-23.43
IIIc	WL49	97.00	0.19	3.06	16.09	-23.16	Isi-c	WL19	95.49	0.07	0.80	11.84	-23.47
IIIc	WL48	96.94	0.14	2.33	16.36	-22.84	Isi-c	WL18	95.44	0.07	0.77	11.70	-23.36
IIIc	WL47	96.90	0.16	2.56	15.81	-22.86	Isi-c	WL17	95.38	0.08	0.90	11.77	-23.37
IIIc	WL46	96.86	0.15	2.41	16.51	-22.92	Isi-c	WL16	95.33	0.08	0.91	11.45	-23.42
IIIb	WL45	96.80	0.13	2.42	18.15	-23.05	Isi-c	WL15	95.28	0.08	0.85	10.94	-23.35
IIIb	WL44	96.72	0.12	2.17	17.40	-23.11	Isi-c	WL14	95.23	0.06	0.81	12.60	-23.35
IIIb	WL43	96.68	0.12	2.12	18.22	-23.20	Isi	WL13	95.16	0.06	0.81	12.45	-23.29
IIIb	WL42	96.64	0.09	1.69	18.11	-23.09	Isi	WL11	95.15	0.07	0.90	12.39	-23.40
IIIb	WL41	96.60	0.08	1.62	19.08	-23.08	Isi	WL12	95.10	0.06	0.74	12.17	-23.11
IIIb	WL40	96.56	0.10	1.76	18.50	-23.19	Isi	WL10	95.10	0.06	0.82	13.11	-23.20
IIIb	WL39	96.52	0.08	1.29	17.16	-23.09	Isi	WL09	95.07	0.06	0.74	12.24	-23.09
IIIc	WL38	96.47	0.07	1.25	17.97	-23.19	Isi	WL08	95.03	0.07	0.75	10.82	-23.08
IIIc	WL37	96.42	0.09	1.49	17.10	-23.25	Isi	WL07	95.00	0.08	0.84	10.10	-22.99
IIIc	WL36	96.38	0.07	1.27	17.75	-23.26	Isi	WL06	94.90	0.06	0.63	10.13	-22.98
IIIc	WL35	96.33	0.09	1.64	17.55	-23.33	Isi	WL05	94.81	0.05	0.47	10.16	-22.87
IIIc	WL34	96.27	0.09	1.45	16.58	-23.29	Isi	WL04	94.76	0.04	0.47	10.69	-23.11
IIIc	WL33	96.22	0.07	1.26	17.17	-23.27	Isi	WL03	94.71	0.05	0.50	10.21	-23.06
IIIc	WL32	96.17	0.07	1.14	17.25	-23.24	Isi	WL02	94.61	0.03	0.35	10.14	-22.89
IIIc	WL31	96.11	0.07	1.13	16.49	-23.21	Isi	WL01	94.51	0.04	0.38	9.83	-22.79
IIIc	WL30	96.05	0.07	1.16	16.36	-23.32	Isi	WL00	94.41	0.03	0.34	10.41	-22.71
IIIc	WL29	96.00	0.07	1.21	16.77	-23.33	Isi	WL62		0.04	0.68	18.57	-22.27
IIIc	WL28	95.95	0.06	1.00	16.59	-23.32	Igl	WL73		0.03	0.42	14.48	-23.26

Note: Primary (first) value used in analysis. Second value is replicate subsample.

SOM (Wedin et al. 1995) which accumulates in soil thereby allowing a reconstruction of past vegetation assemblages (Tieszen and Archer 1990; von Fischer and Tieszen 1995).

All soil samples possessed large amounts of carbonate which was released by treatment with HCl. The C and N elemental determinations and the isotopic values showed very consistent patterns with depth (Figure 42-1). The upper samples of Unit IIIc possessed C and N values slightly reduced from those a few decimeters below, but the values then decreased progressively with depth to be the lowest in the oldest unit (Unit Isi). There are no corresponding peaks

in C or N concentration associated with the Stiba or Leanne paleosols. The gradual decay with depth and the lack of expression associated with paleosol horizons suggest that contemporary pedogenic processes have historically and are continuing to strongly affect the profile.

The reduction in C and N concentrations, however, are not proportional with depth. The result is a C:N ratio that shows substantial dynamics through the profile. The highest values, around 18 in Unit IIIb, are higher than those that typically characterize modern grassland soils. Ecosystems, including woodlands, with higher lignin concentrations or

FIGURE 42-1. Stable carbon isotope analysis.

more recalcitrant carbon might possess higher ratios than those found in grassland where the C:N equilibrium value in recalcitrant carbon is often between 9 and 12. There are also some abrupt transitions in the C:N ratio associated with the stratigraphic boundaries. The strongest of these is the shift from low values just above 10 to a peak of greater than 13 at the upper boundary of Unit Isi. Although this zonation is probably related to the paleosol, its environmental significance remains unclear.

The carbon isotope ratios are quite interesting but somewhat problematic. Because the modern surface was partially truncated by previous road construction, the record lacks a complete modern baseline for comparisons. The average $\delta^{13}\text{C}$ value for Blackland Prairie SOM in Texas is around -14.4‰ (Tieszen, unpublished). Although the range of $\delta^{13}\text{C}$ SOM values for modern Texas oak-juniper woodlands is unknown, it should be substantially more negative (ca. -18‰ to -22‰) than found in prairie sites. Modern soil samples are also typically somewhat more positive with a strong decrease in values within the upper several centimeters reflecting the historical incorporation of anthropogenically depleted carbon.

Apart from the unexpectedly negative nature of the isotopic values, the most striking feature of the data is the consistence of the trend through time and the high repeatability (see Table 42-1). Overall, the Wilson-Leonard SOM carbon isotope values are quite negative (strongly C_3) centering around -23‰. There is little zonation in the signal associated with the stratigraphic boundaries as defined by soil, geomorphology, and archeology. The profile does exhibit a broad drift from greater values at the base (>

23‰) toward more negative values (<-23‰) in mid-profile. Values reach their maximum C_3 (most negative) within Unit II. Values at this level are equivalent to only a 15% contribution by C_4 vegetation, based on end members. This shift, albeit a gradual one, is at odds with that hypothesized from Wilson-Leonard phytoliths or other regional data sets. The relatively minor fluctuation in the stable carbon isotopic values toward the top of the profile, however, is in general agreement with the phytolith record. These data suggest a maximum contribution by C_4 grasslands at, or just above, the Unit IIIb/IIIc boundary and a shift back toward more pure C_3 values above. The phytolith assemblages from these samples suggest local or regional woodland expansion. Relative to the potential range in stable carbon values, these fluctuations are relatively insignificant. Given the generally C_4 composition of the grasslands, at least during the late Holocene, this suggests that the site has been largely woodland to open woodland throughout the Holocene.

CONCLUSIONS

The stable carbon isotopic analysis of the Wilson-Leonard profile, while not strongly contradicting the phytolith record, lends little support to evidence of vegetation and climatic change during the Holocene. The lack of sensitivity in this record is somewhat perplexing. Several explanations are possible, including massive translocation of SOM throughout the profile or alteration of the isotopic signature during SOM decay. Neither of these is likely. The documented phytolith zonation argues against the former.

The latter is contrary to current research on carbon isotopic signal fidelity and organic decay processes (see discussion in Boutton et al. 1994; von Fisher and Tieszen 1995; Wedin et al. 1995).

The only palatable explanation for the difference between the carbon isotopic and the phytolith records is one of spatial scale. The observed changes in the phytolith profile relate to influx of grass short-cell phytoliths. The regional eolian contribution of this group of phytoliths is sub-

stantial (Fredlund and Tieszen 1994). The relative contribution of organic matter from regional sources, whether by eolian or fluvial processes, is relatively much smaller. This difference in transportation results in a phytolith record that is more sensitive to regional vegetation change, while the SOM, at least at the Wilson-Leonard site, remains primarily a local signature. This interpretation is supported by the relatively high phytolith indicators of woodlands present throughout the Holocene record.

REFERENCES CITED IN VOLUME V

- Agricultural Research Service
1981 *Nutritive Value of Foods*. United States Department of Agriculture, Washington, D.C.
- Alexander, H. L., Jr.
1963 The Levi Site: A Paleo-Indian Campsite in Central Texas. *American Antiquity* 28:510-528.
- Allen, D. C., and E. P. Cheatum
1961 Ecological Implications of Fresh-Water and Land Gastropods in Texas Archeology. *Bulletin of the Texas Archeological Society* 31(for 1960):291-316.
- Ambrose, S. H.
1993 Isotopic Analysis of Paleodiets: Methodological and Interpretive Considerations. In *Investigations of Ancient Human Tissue*, edited by M. K. Sanford, pp. 59-130. Gordon and Breach Science Publishers, Langhorne, Pennsylvania.
- Anderson, K.
1993 Native Californians as Ancient and Contemporary Cultivators. In *Before the Wilderness: Environmental Management by Native Californians*, edited by T. C. Blackburn and K. Anderson, pp. 151-174. Ballena Press, Ramona, California.
- Andrews, P.
1990 *Owls, Caves and Fossils: Predation, Preservation, and Accumulation of Small Mammal Bones in Caves, with an Analysis of Pleistocene Cave Faunas from Westbury-sub-Mendip, Somerset, UK*. University of Chicago Press, Chicago.
- Andrews, P., and E. M. Nesbit Evans
1983 Small Mammal Bone Accumulations Produced by Mammalian Carnivores. *Paleobiology* 9:289-307.
- Anthony, D.
1994 Mussel Shell Procurement in North-Central Texas. In *Archaeological Investigations in the Denton Creek Floodplain: Data Recovery Excavations at 41DL270, Denton and Dallas Counties, Texas*, edited by D. Anthony and D. O. Brown, pp. 265-275. Archaeological Series 37. Hicks and Co., Austin.
- Ar, A., H. Rahn, and C. V. Paganelli
1979 The Avian Egg: Mass and Strength. *Condor* 81:331-337.
- Artz, J. A.
1983 Bone Preservation and Soil Phosphorus: Pedologic Mechanisms for Post-Depositional Weathering of Bone in Archaeological Sites. Paper presented at the 41st Plains Anthropological Conference, Rapid City, South Dakota.
- Auffenberg, W.
1969 The Fossil Snakes of Florida. *Tulane Studies in Zoology* 10:131-216.
- Baker, B. W.
1992 Early Through Late Archaic Period Faunal Exploitation in a South-Central Texas Riparian Habitat: Vertebrate Remains from the Richard Beene Site (41BX831). *South-eastern Archaeological Conference Bulletin* 35:8. Abstracts of the Forty-Ninth Annual Meeting of the South-eastern Archaeological Conference, Little Rock.
- 1993a A Late Pleistocene Record of the Ringtail from South-Central Texas. *Current Research in the Pleistocene* 10:94-96.
- 1993b A Review of Central Texas Archaic Subsistence Practices. In *Archaeological Investigations in Bull Branch: Results of the 1990 Summer Archaeological Field School*, edited by D. L. Carlson, pp. 35-45. Research Report No. 19. Archaeological Resource Management Series, United States Army Fort Hood, Texas.
- 1994 *Vertebrate Remains from the Wilson-Leonard Site (41WM235), Williamson County, Texas: Holocene Animal Exploitation in Central Texas Prehistory*. Unpublished Master's thesis, Department of Anthropology, Texas A&M University, College Station.
- 1996 Zooarchaeology. In *Archaeological Investigations Along Owl Creek: Results of the 1992 Summer Archaeological Field School*, edited by D. L. Carlson, pp. 27-40. Research Report No. 29. Archaeological Resource Management Series, United States Army Fort Hood, Texas. In press.
- 1997 Appendix C: Faunal Analysis. In *NRHP Testing of 19 Prehistoric Archeological Sites on Fort Hood, Texas: The 1995 Field Season*, (draft) by G. Mehlchick, K. Kleinbach, S. A. Tomka, D. K. Boyd, and K. W. Kibler. Research Report No. 37. Archaeological Resource Management Series, United States Army Fort Hood, Texas.
- Baker, B. W., and D. G. Steele
1992 A Late Pleistocene Through Late Holocene Faunal Assemblage from the Richard Beene Archaeological Site (41BX831), Bexar County, South-Central Texas: Preliminary Results. In *Late Cenozoic Alluvial Stratigraphy and Prehistory of the Inner Gulf Coastal Plain, South-Central Texas*, (draft) edited by R. D. Mandel, and S. C. Caran. Series No. 4. Lubbock Lake Landmark Quaternary Research Center, Lubbock.
- Baker, F. C.
1911 *The Lymnaeidae of North and Middle America, Recent and Fossil*. Special Publication 3. Chicago Academy of Science, Chicago.
- 1928 The Fresh Water Mollusca of Wisconsin. Part I. Gastropoda. *Wisconsin Geological and Natural History Survey Bulletin* 70:1-507.
- 1939 *Fieldbook of Illinois Land Snails. Manual 2*. Urbana, Illinois.

- Balkwill, D. M., and S. L. Cumbaa
1992 *A Guide to the Identification of Postcranial Bones of Bos taurus and Bison bison*. Syllogeus No. 71. Canadian Museum of Nature, Ottawa.
- Baugh, S. T.
1986 Late Prehistoric Bison Distributions in Oklahoma. In *Current Trends in Southern Plains Archaeology*, edited by T. G. Baugh, pp. 83-96. *Plains Anthropologist*, Memoir 21, Vol. 31, No. 114.
- Behrensmeyer, A. K.
1978 Taphonomic and Ecologic Information from Bone Weathering. *Paleobiology* 4:150-162.
- Behrensmeyer, A. K., and A. P. Hill (editors)
1980 *Fossils in the Making: Vertebrate Taphonomy and Paleoecology*. University of Chicago Press, Chicago.
- Bement, L. C.
1991 *Hunter-Gatherer Mortuary Practices During the Archaic in Central Texas*. Ph.D. dissertation, The University of Texas at Austin. University Microfilms, Ann Arbor.
1994 *Hunter-Gatherer Mortuary Practices During the Central Texas Archaic*. The University of Texas Press, Austin.
1994 Chapter 6: Faunal Analysis. In *Hunter-Gatherer Mortuary Practices During the Central Texas Archaic*, pp. 43-60. University of Texas Press, Austin.
- Berger, R.
1975 Advances and Results in Radiocarbon Dating: Early Man in America. *World Archaeology* 7:174-184.
- Binford, L. R.
1978 *Nunamiut Ethnoarchaeology*. Academic Press, New York.
1981 *Bones: Ancient Men and Modern Myths*. Academic Press, New York.
- Binford, L. R., and J. B. Bertram
1977 Bone Frequencies and Attritional Process. In *For Theory Building in Archaeology*, edited by L. R. Binford, pp. 77-153. Academic Press, New York.
- Black, S. L.
1989 Central Texas Plateau Prairie. In *From the Gulf to the Rio Grande: Human Adaptation in Central, South, and Lower Pecos Texas*, by T. R. Hester, S. L. Black, D. G. Steele, B. W. Olive, A. A. Fox, K. J. Reinhard, and L. C. Bement, pp. 17-38. Research Series No. 33. Arkansas Archeological Survey, Fayetteville.
- Black, S. L., and A. J. McGraw
1985 *The Panther Springs Creek Site: Cultural Change and Continuity Within the Upper Salado Creek Watershed, South-Central Texas*. Archaeological Survey Report No. 100. Center for Archaeological Research, The University of Texas at San Antonio.
- Blair, F. W.
1950 The Biotic Provinces of Texas. *The Texas Journal of Science* 2:93-117.
- Bond, C. L.
1978 *Three Archeological Sites at Hoxie Bridge, Williamson County, Texas*. Report No. 43. Anthropology Laboratory, Texas A&M University, College Station.
- Bonnichsen, R., and R. T. Will
1980 Cultural Modification of Bone: The Experimental Approach in Faunal Analysis. In *Mammalian Osteology*, by B. M. Gilbert, pp. 7-30. Modern Printing, Laramie, Wyoming.
- Bousman, C. B.
1994 The Central Texas Pollen Record: A Reinterpretation. *Current Research in the Pleistocene* 11:79-81.
1998 Paleoenvironmental Change in Central Texas: The Pollenological Evidence. *Plains Anthropologist* 43:40-59.
- Boutton, T. W., A. T. Harrison, and B. N. Smith
1994 Distribution of Biomass of Species Differing in Photosynthetic Pathways along an Altitudinal Transect in Southeastern Wyoming Grasslands. *Oecologia* 45:287-298.
- Bozarth, S. R.
1992 Classification of Opal Phytoliths Formed in Selected Dicotyledons Native to the Great Plains. In *Phytolith Systematics: Emerging Issues*, edited by G. Rapp Jr. and S. C. Mulholland, pp. 193-214. Advances in Archaeological and Museum Science 1. Plenum Press, New York.
1993 Biosilicate Assemblages of Boreal Forests and Aspen Parklands. In *Phytolith Analysis: Applications in Archaeology and Paleoecology*, edited by D. M. Pearsall and D. R. Piperno, pp. 95-105. University of Pennsylvania, Philadelphia.
- Brace, C. L., and D. P. Tracer
1992 Craniofacial Continuity and Change: A Comparison of Late Pleistocene and Recent Europe and Asia. In *The Evolution and Dispersal of Modern Humans in Asia*, edited by T. Akazawa, K. Aoki, and T. Kimura, pp. 439-472. Hokusensha Publishing, Tokyo.
- Bradbury, J. P.
1975 *Diatom Stratigraphy and Human Settlement in Minnesota*. Special Paper 171. Geological Society of America.
- Brain, C. K.
1981 *The Hunters or the Hunted? An Introduction to African Cave Taphonomy*. University of Chicago Press, Chicago.
- Breternitz, D. A., A. C. Swedlund, and D. C. Anderson
1971 An Early Burial from Gordon Creek, Colorado. *American Antiquity* 36:170-182.

- Brobowsky, P. T.
1984 The History and Science of Gastropods in Archeology. *American Antiquity* 49:77-93.
- Brown, D. A.
1984 Prospects and Limits of a Phytolith Key for Grasses in the Central United States. *Journal of Archaeological Science* 11:345-368.
- Brown, D. O.
1987 Aquilla Lake Food Resource Exploitation: Catchment Analysis Evaluation. In *Archeology at Aquilla Lake: 1978-1982 Investigations, Volume III*, by D. O. Brown, R. P. Watson, and J. M. Jackson, pp. 43-1 through 43-31. Research Report No. 81. Texas Archeological Survey, The University of Texas at Austin.
- 1989 Prehistoric Subsistence Strategies in Northeastern Central Texas. *Bulletin of the Texas Archeological Society* 59:201-244.
- Brown, D. O. (editor)
1987 *Archeology at Aquilla Lake: 1978-1982 Investigations, Volume III*. Research Report 81. Texas Archeological Survey, The University of Texas at Austin.
- Bryan, K., T. Gallucci, and D. H. Riskind
1984 *A Checklist of Texas Birds*. Technical Series No. 32. Texas Parks & Wildlife Department, Austin.
- Bryant, V. M.
1989 Botanical Remains in Archeological Sites. In *Interdisciplinary Workshop on the Physical-Chemical-Biological Processes Affecting Archeological Sites*, edited by C. Mathewson, pp. 85-114. United States Army Corps of Engineers, Washington, D.C.
- Bryant, V. M., Jr., and R. G. Holloway
1985 A Late-Quaternary Paleoenvironment Record of Texas: An Overview of the Pollen Evidence. In *Pollen Records of Late-Quaternary North-American Sediments*, edited by V. M. Bryant, Jr. and R. G. Holloway, pp. 39-70. American Association of Stratigraphic Palynologists Foundation, Dallas.
- Buikstra, J. E., and M. Swegle
1989 Bone Modification Due to Burning: Experimental Evidence. In *Bone Modification*, edited by R. Bonnicksen, and M. H. Sorg, pp. 247-258. Center for the Study of First Americans, Orono, Maine.
- Burch, J. B.
1962 *How to Know the Eastern Land Snails*. Wm. C. Brown Co., Dubuque, Iowa.
- 1975 *Freshwater Unionacean Clams (Mollusca: Pelecypoda) of North America*. Revised edition. Malacological Publications, Hamburg, Michigan.
- 1982 *Freshwater Snails (Mollusca: Gastropoda) of North America*. United States Protection Agency, Cincinnati.
- Burley, R. W., and D. V. Vadehra
1989 *The Avian Egg: Chemistry and Biology*. John Wiley & Sons, New York.
- Butler, B.
1976 Faunal Analysis. In *The Hopewell School Site: A Late Archaic Campsite in the Central Brazos River Valley*, by J. G. Gallagher, and S. E. Bearden, pp. 75-78. Contributions in Anthropology No. 19. Southern Methodist University, Dallas.
- Carbone, V. A.
1978 Phytoliths as Paleoecological Indicators. *Annals of New York Academy of Science* 288:194-205.
- Carlson, D. L., and B. S. Shaffer
1992 Appendix II. dBASE FACS Support Programs and Procedures. In *A Vertebrate Faunal Analysis Coding System: With North American Taxonomy and dBASE Support Programs and Procedures (Version 3.3)*, by B. S. Shaffer, and B. W. Baker, pp. 77-102. Technical Report No. 23. Museum of Anthropology, University of Michigan, Ann Arbor.
- Carlson, D. L., and D. G. Steele
1992 Human-Mammoth Sites: Problems and Prospects. In *Proboscidean and Paleoindian Interactions*, edited by J. W. Fox, C. B. Smith, and K. T. Wilkins, pp. 149-169. Baylor University Press, Waco.
- Carlson, D. L., D. G. Steele, and A. G. Comuzzie
1984 Mammoth Excavations at the Duewall-Newberry Site on the Brazos River in Texas, 1983. *Current Research in the Pleistocene* 1:63-64.
- Carlson, G. G., and V. H. Jones
1940 Some Notes on the Uses of Plants by the Comanche Indians. *Papers of the Michigan Academy of Arts, Sciences and Letters* 25:517-542.
- Casteel, R.
1972 Some Biases in the Recovery of Archaeological Faunal Remains. *Proceedings of the Prehistoric Society* 38:328-388.
- Castetter, E. F.
1935 *Ethnobiological Studies in the American Southwest I. Uncultivated Native Plants Used as Sources of Food*. University of New Mexico Bulletin 372 and Biological Series 4. The University of New Mexico, Albuquerque.
- Cheatum, E. P., and R. W. Fullington
1971 The Recent and Pleistocene Members of the Molluscan Family Polygyridae in Texas. *Dallas Museum of Natural History Bulletin* 1 (1):1-74.
- 1973 The Recent and Pleistocene Members of the Pupillidae and Urocoptidae (Gastropoda) in Texas. *Dallas Museum of Natural History Bulletin* 1 (2):1-67.

- Chelf, C.
1946 Grooved Clubs from a Peat Bog in Milam County, Texas. *Bulletin of the Texas Archeological and Paleontological Society* 17:42-47.
- Chisholm, B. S.
1989 Variation in Diet Reconstructions Based on Stable Carbon Isotopic Evidence. In *The Chemistry of Prehistoric Human Bone*, edited by T. D. Price, pp. 10-37. Cambridge University Press, Cambridge.
- Christensen, C. L.
1978 Observations on the Diatom Flora from Springs along the Balcones Fault, Texas. *Phytologia* 40 (2):89-104.
- Clark, J. W., Jr.
1973 The Problem of the Land Snail Genus *Rabdotus* in Texas Archeological Sites. *The Nautilus* 87:24.

1976 Alvar Nuñez and the Snail *Rabdotus* in Texas. *The Nautilus* 90:13-14.
- Clarke, A. C.
1981 *The Freshwater Molluscs of Canada*. National Museums of Canada, Ottawa.
- Clausen, C. J., H. K. Brooks, and A. B. Wesolowsky
1975 The Early Man Site at Warm Mineral Springs, Florida. *Journal of Field Archaeology* 2:191-213.
- Coffman, R. J.
1986 Appendix C: Vertebrate Faunal Remains at the Kenyon Rockshelter, 41TV742. In *Cultural Ecology of the Kenyon Rockshelter and the Cunningham Site, Canyon Creek Development, Travis County, Texas*, by R. J. Coffman, M. C. Trachte, and M. B. Collins, pp. 383-402. Reports of Investigations No. 53. Prewitt and Associates, Inc., Austin.
- Collins, M. B.
1995 Forty Years of Archeology in Central Texas. *Bulletin of the Texas Archeological Society* 66:361-400.

1996 Arenosa Shelter. In *The New Handbook of Texas*, Volume 1, p. 236. The Texas State Historical Association, Austin.
- Collins, M. B., and C. B. Bousman
1993 Historic Context: Quaternary Environments and Archeology in Northeastern Texas. In *Archeology in the Eastern Planning Region, Texas: A Planning Document*, edited by N. A. Kenmotsu and T. K. Pertulla, pp. 49-67. Cultural Resource Management Report 3. Texas Historical Commission, Austin.
- Collins, M. B., G. L. Evans, T. N. Campbell, M. C. Winans, and C. E. Mear
1989 Clovis Occupation at Kincaid Shelter, Texas. *Current Research in the Pleistocene* 6:3-4.
- Collins, M. B., J. Guy, and S. Carpenter
1991 *An Evaluation of Documentation from 1981-1984 Investigations at the Wilson-Leonard Site (41WM235), Williamson County, Texas*. Technical Series 21. Texas Archeological Research Laboratory, The University of Texas at Austin.
- Creel, D.
1991 Bison Hides in Late Prehistoric Exchange in the Southern Plains. *American Antiquity* 56:40-49.
- Creel, D., R. F. Scott IV, and M. B. Collins
1990 A Faunal Record from West Central Texas and Its Bearing on Late Holocene Bison Populations Changes in the Southern Plains. *Plains Anthropologist* 35:55-69.
- Crook, W. W., Jr., and R. K. Harris
1957 Hearths and Artifacts of Early Man Near Lewisville, Texas and Associated Faunal Material. *Bulletin of the Texas Archeological Society* 28:7-97.
- Cushing, J. E., Jr.
1945 Quaternary Rodents and Lagomorphs of San Josecito Cave, Nuevo Leon, Mexico. *Journal of Mammalogy* 26:182-185.
- Dalquest, W. W., and W. Kilpatrick
1973 Dynamics of Pocket Gopher Distribution on the Edwards Plateau of Texas. *The Southwestern Naturalist* 18:1-9.
- Dalquest, W. W., E. Roth, and F. Judd
1969 The Mammal Fauna of Schulze Cave, Edwards County, Texas. *Bulletin of the Florida State Museum* 13(4):205-276.
- Davidow-Henry, B. R., J. K. Jones, Jr., and R. R. Hollander
1989 *Cratogeomys castanops*. *Mammalian Species* 338:1-6.
- Davis, L. B., S. A. Aaberg, W. P. Eckerle, J. W. Fisher, Jr., and S. T. Greiser
1989 Montane Paleoindian Occupation of the Barton Gulch Site, Ruby Valley, Southern Montana. *Current Research in the Pleistocene* 6:7-9.
- Davis, S. J. M.
1987 *The Archaeology of Animals*. Yale University Press, New Haven.
- Davis, W. B.
1974 *The Mammals of Texas* (revised). Bulletin 41. Texas Parks and Wildlife Department, Austin.

1978 *The Mammals of Texas*. Bulletin 41. Texas Parks and Wildlife Department, Austin.
- Deisler, J. E.
1986 Consumption of *Rabdotus alternatus alternatus* (Say, 1830) by the Aboriginal Inhabitants of the Tucker Archeological Site, 41NU46, in South Texas. *Malacology Data Net* 1:13-20.
- Delorme, L. D.
1970a Ostracodes as Quaternary Paleoecological Indicators. *Canadian Journal of Earth Sciences* 6:1471-1476.

- 1970b Freshwater Ostracodes of Canada, Part 3, Family Candonidae. *Canadian Journal of Zoology* 48:1099-1127.
- 1971a Freshwater Ostracodes of Canada, Part 5, Families Limnocytheridae, Loxoconchidae. *Canadian Journal of Zoology* 49:43-64.
- 1971b *Paleoecology of Holocene Sediments from Manitoba Using Freshwater Ostracodes*. Special Paper Number 9, pp. 301-304. Geological Association Canada.
- 1978 Distribution of Freshwater Ostracodes in Lake Erie. *International Association Great Lake Research* 4:216-220.
- Delorme, L. D., and S. C. Zoltai
1984 Distribution of an Arctic Ostracode Fauna in Space and Time. *Quaternary Research* 21:65-73.
- DeMarcay, G. B.
1986 *Vertebrate Fauna from Landerkin Mesa: An Antelope Creek Period Village Site*. Unpublished Master's thesis, Department of Anthropology, Texas A&M University.
- DeMarcay, G. B., and D. G. Steele
1986 The Value of Fine Screening on Inland Based Hunter-Gatherer Habitation Sites. In *Archaeological Investigations at 41LK201, Choke Canyon Reservoir, Southern Texas*, by C. L. Highley, pp. 250-264. Choke Canyon Series, Vol. 11. Center for Archaeological Research, The University of Texas at San Antonio.
- Densmore, F.
1928 Uses of Plants by the Chippewa Indians. *Bureau of American Ethnology Annual Report (1926-1927)* 44:275-397.
- Dent, R. J.
1985 Amerinds and the Environment: Myth, Reality, and the Upper Delaware Valley. In *Shawnee Minisink: A Stratified Paleoindian-Archaic Site in the Upper Delaware Valley of Pennsylvania*, edited by C. W. McNett, pp. 123-163. Academic Press, New York.
- Denys, L.
1990 *Fragilaria* Blooms in the Holocene of the Western Coastal Plain of Belgium. In *Proceedings of the 10th Diatom Symposium, 1988*, pp. 397-406. Koeltz Scientific Books, Koenigstein.
- Dering, J. P.
1979 *Pollen and Plant Macrofossil Vegetation Record Recovered from Hinds Cave, Val Verde County, Texas*. Unpublished Master's thesis. Department of Botany, Texas A&M University, College Station.
- 1993 Macrobotanical Analysis of Samples from Four Woodland and Caddoan Period Sites in the Cooper Lake Area of the Upper Sulphur River. In *Excavations at the Tick, Spike, Johns Creek, and Peerless Bottoms Sites, Cooper Lake Project*, by R. C. Fields, E. F. Gadus, L. W. Klement, C. B. Bousman, and J. B. McLerran, pp. 335-355. Reports of Investigations 91. Prewitt and Associates, Inc., Austin.
- 1997 Macrobotanical Remains. In *Hot Rock Cooking on the Greater Edwards Plateau: Four Burned Rock Midden Sites in West Central Texas*, Volume 2, by S. L. Black, L. W. Ellis, D. G. Creel, and G. T. Goode, pp. 571-600. Studies in Archeology 22 and Archeology Studies Program, Report 2. Texas Archeological Research Laboratory, The University of Texas at Austin and Environmental Affairs Department, Texas Department of Transportation, Austin.
- Diamond, D. D., D. H. Riskind, and S. L. Orzell
1987 A Framework for Plant Community Classification and Conservation in Texas. *The Texas Journal of Science* 39:203-221.
- Diamond, D. D. and F. E. Smeins
1985 Composition, Classification and Species Response Patterns of Remnant Tallgrass Prairies in Texas. *American Midland Naturalist* 113:294-308.
- Dice, L. R.
1943 *The Biotic Provinces of North America*. University of Michigan Press, Ann Arbor.
- Dibble, D. S.
1967 Excavations at Arenosa Shelter, 1965-1967. Unpublished report on file at the Texas Archeological Research Laboratory, The University of Texas at Austin.
- Dillehay, T. D.
1974 Late Quaternary Bison Population Changes on the Southern Plains. *Plains Anthropologist* 19:180-196.
- Dincauze, D.
1981 Paleoenvironmental Reconstruction in the Northeast: The Art of Multidisciplinary Science. In *Foundations of Northeast Archaeology*, edited by D. Snow, pp. 51-96. Academic Press, New York.
- Dixon, J. R.
1987 *Amphibians and Reptiles of Texas: With Keys, Taxonomic Synopses, Bibliography, and Distribution Maps*. Texas A&M University Press, College Station.
- Dixon, R. B.
1923 *The Racial History of Man*. Charles Scribner's Sons, New York.
- Duffield, L. F.
1973 Aging and Sexing the Post-Cranial Skeleton of Bison. *Plains Anthropologist* 18(60):132-139.
- Efremov, J. A.
1940 Taphonomy: A New Branch of Paleontology. *Pan-American Geologist* 74:81-93.
- Evans, G. L.
1961 Part I: The Friesenhahn Cave. *Bulletin of the Texas Memorial Museum* 2:1-22. Texas Memorial Museum, The University of Texas at Austin.

- Fenneman, N. M.
1938 *Physiography of Eastern United States*. McGraw-Hill, New York.
- Ferring, C. R.
1989 The Aubrey Clovis Site: A Paleoindian Locality in the Upper Trinity River Basin, Texas. *Current Research in the Pleistocene* 6:9-11.
- Fisher, R. F., M. J. Jenkins, and W. F. Fisher
1986 Fire and the Prairie-Forest Mosaic of Devils Tower National Monument. *American Midland Naturalist* 117:250-257.
- Flynn, P.
1982 Distribution of Prehistoric Bison Populations on the Southern Plains: A Test of Dillehay's Model. *Papers in Anthropology* 23:7-35. Department of Anthropology, University of Oklahoma, Norman.
- Ford, P. J.
1990 Antelope, Deer, Bighorn Sheep and Mountain Goats: A Guide to the Carpals. *Journal of Ethnobiology* 10(2):169-181.
- Ford, R. I.
1979 Paleoethnobotany in American Archaeology. In *Advances in Archaeological Method and Theory*, edited by M. Schiffer, pp. 285-326. Academic Press, New York.
- Forrester, R. E.
1965 Fish in the Diet of Prehistoric Indians: Observations from Personal Excavations in the Area of Lake Whitney, North Central Texas. *Oklahoma Anthropological Society Newsletter* 13(7):5-8.

1985 Horn Shelter Number 2: The North End, A Preliminary Report. *Central Texas Archeologist* 10:21-35.
- Fox, J. W., C. B. Smith, and D. O. Lintz
1992 Herd Bunching at the Waco Mammoth Site: Preliminary Investigations, 1978-1987. In *Proboscidean and Paleoindian Interactions*, edited by J. W. Fox, C. B. Smith, and K. T. Wilkins, pp. 51-73. Baylor University Press, Waco.
- Fredlund, G. G., and L. L. Tieszen
1994 Modern Phytolith Assemblages from the North American Great Plains. *Journal of Biogeography* 21:321-335.
- Frison, G. C., and C. A. Reher
1970 Appendix I: Age Determination of Buffalo by Teeth Eruption and Wear. In *The Glenrock Buffalo Jump, 48CO304*, edited by G. Frison. *Plains Anthropologist Memoir* 7, 15(50, Part 2):46-50.
- Fryxell, R., T. Bielicki, R. D. Daugherty, C. E. Gustafson, H. T. Irwin, and B. C. Keel
1968 A Human Skeleton from Sediments of Mid-Pinedale Age in Southeastern Washington. *American Antiquity* 33:511-514.
- Fuller, L. G., and D. W. Anderson
1993 Changes in Soil Properties Following Forest Invasion of Black Soils of the Aspen Parkland. *Canadian Journal of Soil Science* 73:613-627.
- Fullington, R. W.
1978 *The Recent and Fossil Freshwater Gastropod Fauna of Texas*. Ph.D. dissertation, North Texas State University, Denton.
- Fullington, R. W., and W. L. Pratt, Jr.
1974 *The Aquatic and Land Mollusca of Texas. Part Three: The Helicinidae, Carychiidae, Achatinidae, Bradybaenidae, Bulimulidae, Cionellidae, Haplotrematidae, Helicidae, Oreohelicidae, Spiraxidae, Streptaxidae, Strobilopsidae, Thysanophoridae, Valloniidae (Gastropoda) in Texas*. Bulletin 1. Dallas Museum of Natural History, Dallas.

1994 *The Aquatic and Land Mollusca of Texas. Dallas Museum of Natural History Bulletin* 3
- Funk, R. E.
1978 Post Pleistocene Adaptations. In *Northeast*, edited by B. G. Trigger, pp. 16-27. Handbook of North American Indians, vol. 15, W. C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Furtos, N. C.
1933 *The Ostracoda of Ohio*. Bulletin 29. Ohio Biological Survey, p. 413-524.
- Gautier, A.
1993 Trace Fossils in Archaeozoology. *Journal of Archaeological Science* 20:511-523.
- Gehlbach, F. R.
1991 The East-West Transition Zone of Terrestrial Vertebrates in Central Texas: A Biogeographical Analysis. *The Texas Journal of Science* 43:415-427.
- Geis, J. W.
1973 Biogenic Silica in Selected Species of Deciduous Angiosperms. *Soil Science* 116:113-130.
- Genovese, S. C.
1967 Proportionality of Long Bones and Their Relation to Stature among Mesoamericans. *American Journal of Physical Anthropology* 26:67-78.
- Gifford, D. P.
1981 Taphonomy and Paleoecology: A Critical Review of Archaeology's Sister Disciplines. In *Advances in Archaeological Method and Theory*, Vol. 4, edited by M. B. Schiffer, pp. 365-438. Academic Press, New York.
- Gilbert, B. M.
1980 *Mammalian Osteology*. B. Miles Gilbert, Publisher, Laramie, Wyoming.
- Gilbert, B. M., L. D. Martin, and H. G. Savage
1985 *Avian Osteology*. Modern Printing Company, Laramie, Wyoming.

- Gilchrist, R., and H. C. Mytum
1986 Experimental Archaeology and Burnt Animal Bone from Archaeological Sites. *Circaea* 4:29-38.
- Gilmore, M.
1977[1919] *Uses of Plants by the Indians of the Missouri River Region*. Reprint of the 33rd annual Report of the Bureau of American Ethnology. University of Nebraska Press, Lincoln.
- Gordon, C. C., and J. E. Buikstra
1981 Soil pH, Bone Preservation, and Sampling Bias at Mortuary Sites. *American Antiquity* 46:566-571.
- Gordon, E. A.
1993 Screen Size and Differential Faunal Recovery: A Hawaiian Example. *Journal of Field Archaeology* 20:453-460.
- Gould, F. W.
1942 A Systematic Treatment of the Genus *Camassia*. *The American Midland Naturalist* 28 (3):712-742.
- Gould, S. J.
1971 The Paleontology and Evolution of Cerion II: Age and Fauna of Indian Shell Middens of Curacao and Aruba. *Brevoria* 372:1-26.
- Graham, R. W.
1976a *Pleistocene and Holocene Mammals, Taphonomy, and Paleoecology of the Friesenhahn Cave Local Fauna, Bexar County, Texas*. Unpublished Ph.D. dissertation, Department of Geological Sciences, The University of Texas at Austin.
1976b Friesenhahn Cave Revisited (A Glimpse of Central Texas 20,000 Years Ago). *The Mustang* 18(5):1-7.
1976c Late Wisconsin Mammalian Faunal and Environmental Gradients of the Eastern United States. *Paleobiology* 2:343-350.
1984 Paleoenvironmental Implications of the Quaternary Distribution of the Eastern Chipmunk (*Tamias striatus*) in Central Texas. *Quaternary Research* 21:111-114.
1987 Late Quaternary Mammalian Faunas and Paleoenvironments of the Southwestern Plains of the United States. In *Late Quaternary Mammalian Biogeography and Environments of the Great Plains and Prairies*, edited by R. W. Graham, H. A. Semken, Jr., and M. A. Graham, pp. 24-86. Illinois State Museum, Springfield.
- Graham, R. W., and J. I. Mead
1987 Environmental Fluctuations and Evolution of Mammalian Faunas During the Last Deglaciation in North America. In *North America and Adjacent Oceans During the Last Deglaciation, the Geology of North America, Vol. K-3*, edited by W. F. Ruddiman, and H. E. Wright, Jr., pp. 371-402. The Geological Society of America, Boulder, Colorado.
- Grayson, D. K.
1979 On the Quantification of Vertebrate Archaeofaunas. In *Advances in Archaeological Method and Theory*, Vol. 2, edited by M. B. Schiffer, pp. 199-237. Academic Press, New York.
1983 The Paleontology of Gatecliff Shelter: Small Mammals. In *The Archaeology of Monitor Valley: 2*, edited by D. H. Thomas, pp. 98-126. Anthropological Papers of the American Museum of Natural History, Vol. 59, Part 1, New York.
1984 *Quantitative Zooarchaeology: Topics in the Analysis of Archaeological Faunas*. Academic Press, New York.
1991 The Small Mammals of Gatecliff Shelter: Did People Make a Difference? In *Beamers, Bobwhites, and Blue-Points: Tributes to the Career of Paul W. Parmalee*, edited by J. R. Purdue, W. E. Klippel, and B. W. Styles, pp. 99-109. Illinois State Museum, Springfield.
- Great Plains Flora Association
1986 *Flora of the Great Plains*. University of Kansas, Lawrence.
- Griffitts, J.
1992 Modified Bone and Bone Tool Use on the Southern Plains: An Example from West Central Texas. *Society for American Archaeology, Abstracts of the 57th Annual Meeting*, p. 55. Pittsburgh, Pennsylvania.
- Hafner, D. J.
1993 Reinterpretation of the Wisconsin Mammalian Fauna and Paleoenvironment of the Edwards Plateau, Texas. *Journal of Mammalogy* 74:162-167.
- Hall, G. D.
1989 Long-Bone Implements from Some Prehistoric Sites in Texas: Functional Interpretations Based on Ethnographic Analogy. *Bulletin of the Texas Archeological Society* 59:157-176.
- Hare, P. E.
1980 Organic Chemistry of Bone and Its Relation to the Survival of Bone in the Natural Environment. In *Fossils in the Making: Vertebrate Taphonomy and Paleoecology*, edited by A. K. Behrensmeier and A. P. Hill, pp. 208-219. The University of Chicago Press, Chicago.
- Harmon, A. M., and J. C. Rose
1988 *The Role of Dental Microwear Analysis in the Reconstruction of Prehistoric Diet. Diet and Subsistence: Current Archaeological Perspectives*, edited by B. V. Kennedy and G. M. LeMoine, pp. 267-272. Proceedings of the 19th Annual Chacmool Conference Archaeological Association of the University of Calgary, Calgary, Alberta.
- Harrell, L. L.
1983 *A Study of the Bone and Antler Tools from Hog Creek Reservoir, Bosque and Coryell Counties, Texas*. Unpublished Master's thesis, Department of Anthropology, The University of Texas at Austin.

- Hartnady, P., and J. C. Rose
1991 Abnormal Tooth-Loss Patterns among Archaic Period Inhabitants of the Lower Pecos Region, Texas. In *Advances in Dental Anthropology*, edited by M. A. Kelly and C. S. Larson, pp. 267-278. Wiley-Liss, New York.
- Hather, G.
1991 The Identification of Charred Archaeological Remains of Vegetative Parenchymous Tissue. *Journal of Archaeological Science* 18:661-675.
- Havard, V.
1895 Food Plants of the North American Indians. *Bulletin of the Torrey Botanical Club* 22 (3):98-123.
- Haynes, C. V., Jr.
1991 Geoarchaeological and Paleohydrological Evidence for a Clovis-age Drought in North America and Its Bearing on Extinction. *Quaternary Research* 35:438-450.
- Haynes, G.
1980 Evidence of Carnivore Gnawing on Pleistocene and Recent Mammalian Bones. *Paleobiology* 6(3):341-351.
1982 Utilization and Skeletal Disturbances of North American Prey Carcasses. *Arctic* 35(2):266-281.
1983 A Guide for Differentiating Mammalian Carnivore Taxa Responsible for Gnaw Damage to Herbivore Limb Bones. *Paleobiology* 9:164-172.
1992 The Waco Mammoths: Possible Clues to Herd Size, Demography, and Reproductive Health. In *Proboscidean and Paleoindian Interactions*, edited by J. W. Fox, C. B. Smith, and K. T. Wilkins, pp. 111-122. Baylor University Press, Waco.
- Hayward, B. W., and F. J. Brook
1981 Exploitation and Redistribution of Flax Snail (*Placostylus*) by the Prehistoric Maori. *New Zealand Journal of Ecology* 4:33-36.
- Hedges, R. E. M., and A. R. Millard
1995 Bones and Groundwater: Towards the Modelling of Diagenetic Processes. *Journal of Archaeological Science* 22(2):155-164.
- Hershler, R., and G. Longley
1986 Phreatic Hydrobiids (Gastropoda: Prosobranchia) from the Edwards (Balcones Fault Zone) Aquifer Region. South-Central Texas. *Malacologia* 27 (1):127-172.
- Hesse, B., and P. Wapnish
1985 *Animal Bone Archeology: From Objectives to Analysis*. Manuals on Archaeology No. 5. Taraxacum Press, Washington.
- Hester, T. R., and T. C. Hill Jr.
1975 Eating Snails in Prehistoric Southern Texas: Ethnohistoric and Experimental Data. *The Nautilus* 89:37-38.
- Hibbard, C. W.
1960 An Interpretation of Pliocene and Pleistocene Climates in North America. *Annual Report of the Michigan Academy of Science, Arts and Letters* 62:5-30.
- Hibbard, C. W., and D. W. Taylor
1960 Two Late Pleistocene Faunas From Southwestern Kansas. *University of Michigan, Museum of Paleontology, Contributions* 21 (1):1-66.
- Highley, L.
1985 Modified Bone and Antler. In *The Panther Springs Creek Site: Cultural Change and Continuity Within the Upper Salado Creek Watershed, South-Central Texas*, by S. L. Black, and A. J. McGraw, pp. 199-207. Archaeological Survey Report No. 100. Center for Archaeological Research, The University of Texas at San Antonio.
- Hill, W. H.
1971 Pleistocene Snakes from a Cave in Kendall County, Texas. *The Texas Journal of Science* 22(2-3):209-216.
- Hillson, S.
1986 *Teeth*. Cambridge University Press, New York.
- Hoff, C. C.
1942 *The Ostracods of Illinois*. Illinois Biological Monograph 19, p. 1-196.
- Hoffman, C. A.
1933 Developmental Morphology of *Allium cepa*. *The Botanical Gazette* 95:279-299.
- Hohn, M. H.
1975 The Diatoms. In *Late Pleistocene Environments of the Southern High Plains*, edited by F. Wendorf and J. J. Hester, pp. 197-200. Ranchos de Taos, Fort Burgwin Research Center.
- Hohn, M. H., and J. Hellerman
1961 The Diatoms. In *Paleoecology of the Llano Estacado*, edited by R. Wendorf, pp. 98-104. Ranchos de Taos, Fort Burgwin Research Center.
- Holloway, R. G., and V. M. Bryant, Jr.
n.d. Pollen Analysis of Site 41WM235. Manuscript on file at the Texas Archeological Research Laboratory, The University of Texas at Austin.
- Holman, J. A.
1966 The Pleistocene Herpetofauna of Miller's Cave, Texas. *The Texas Journal of Science* 38:372-377.
- Holman, J. A., and K. D. Andrews
1994 North American Quaternary Cold-Tolerant Turtles: Distributional Adaptations and Constraints. *Boreas* 23:44-52.
- Holman, J. A., and A. J. Winkler
1987 A Mid-Pleistocene (Irvingtonian) Herpetofauna from a Cave in South-Central Texas. *Pearce-Sellards Series* 44:1-17.

- Hooten, E. A.
1933 Racial Types in America and Their Relation to Old World Types. In *The American Aborigines*, edited by D. Jenness, pp. 131-163. Russell and Russell, New York.
- House, K. D.
1978 Faunal Analysis in Texas Archeological Sites. In *Texas Archeology: Essays Honoring R. King Harris*, edited by K. D. House, pp. 93-131. Reports of Investigations No. 3. Institute for the Study of Earth and Man. Southern Methodist University Press, Dallas, Texas.
- Howley, J. P.
1915 *The Beothucks, or Red Indians: The Aboriginal Inhabitants of Newfoundland*. Cambridge University Press, Cambridge.
- Hrdlicka, A.
1923 *The Origin and Antiquity of the American Indian*. Annual Report of the Board of Regents of the Smithsonian Institution, pp. 481-493. U.S. Government Printing Office, Washington, D.C.
- Hubbs, C., R. J. Edwards, and G. P. Garrett
1991 An Annotated Checklist of the Freshwater Fishes of Texas, With Keys to Identification of Species. *The Texas Journal of Science* 43(4), Supplement.
- Hubricht, L.
1985 The Distributions of the Native Land Molluscs of the Eastern United States. *Feldiana: Zoology (n.s.)* 24:1-191.
- Huebner, J. A.
1991 Late Prehistoric Bison Populations in Central and Southern Texas. *Plains Anthropologist* 36:343-358.
- Huebner, J. A., and T. W. Boutton
1992 The Isotopic Composition of Human Diets in Prehistoric Southeastern Texas. *Texas Journal of Science* 44:43-51.
- Hughes, D. T.
1977 *Analysis of Certain Prehistoric Bison Kills in the Texas Panhandle and Adjacent Areas*. Unpublished Master's thesis, Department of Anthropology, University of Arkansas, Fayetteville.
- Hulbert, R. C., Jr.
1979 *Linear Discriminant Analysis and Variability of Pleistocene and Holocene Leporidae of Texas*. Unpublished Master's thesis, Department of Geological Sciences, The University of Texas at Austin.
- 1984 Latest Pleistocene and Holocene Leporid Faunas from Texas: Their Composition, Distribution and Climatic Implications. *Southwestern Naturalist* 29:197-210.
- 1985 Vertebrate Faunal Remains. In *The Panther Springs Creek Site: Cultural Change and Continuity Within the Upper Salado Creek Watershed, South-Central Texas*, by S. L. Black and A. J. McGraw, pp. 209-215. Archaeological Survey Report No. 100. Center for Archaeological Research, The University of Texas at San Antonio.
- Humphrey, J. D., and C. R. Ferring
1994 Stable Isotopic Evidence for Latest Pleistocene and Holocene Climate Change in North-Central Texas. *Quaternary Research* 41:200-213.
- Hunter, C. A.
1987 Appendix VIII: Vertebrate and Invertebrate Faunal Remains from 41BU16. In *Excavations at 41BU16: State Highway 21 at the Brazos River, Burleson County, Texas*, by E. Roemer, Jr., and S. B. Carlson, pp. 213-261. Contract Reports in Archaeology No. 1. Texas State Department of Highways and Public Transportation, Highway Design Division, Austin.
- Jarvis, R. W., and D. D. Crawford
1974 *Archaeological Excavations on Interstate Highway 10, Sutton County, Texas*. Publications in Archaeology Report No. 4. Texas Highway Department, Highway Design Division, Austin.
- Jenkins, N. K., and C. Tyler
1960 Changes in Eggshell Thickness and White and Yolk Weight and Composition over a Period of a Year. *Journal of Agricultural Science* 55:323-331.
- Jenks, A. E.
1936 *Pleistocene Man in Minnesota: A Fossil Homo sapiens*. University of Minnesota Press, Minneapolis.
- 1937 *Minnesota's Browns Valley Man and Associated Burial Artifacts*. Memoirs of the American Anthropological Association No. 49. American Anthropological Association, Menasha, Wisconsin.
- Jenks, A. E., and L. A. Wilford
1938 Sauk Valley Skeleton. *Bulletin of the Texas Archeological and Paleontological Society* 10:162-163.
- Johannessen, S.
1984 Paleoethnobotany. In *American Bottom Archaeology*, edited by C. J. Bareis and J. W. Porter, pp. 197-214. University of Illinois Press, Urbana.
- Johnson, E.
1977 Animal Food Resources of Paleoindians. *The Museum Journal* 17:65-77.
- 1985 Current Developments in Bone Technology. In *Advances in Archaeological Method and Theory*, Vol. 8, edited by Michael B. Schiffer, pp. 157-235. Academic Press, New York.
- Johnson, E. (editor)
1987 *Lubbock Lake, Late Quaternary Studies on the Southern High Plains*. Texas A&M University Press, College Station.

- Johnson, L., Jr.
1991 *Early Archaic Life at the Sleeper Archaeological Site, 41BC65 of the Texas Hill Country, Blanco County, Texas*. Publications in Archaeology Report No. 39. Texas State Department of Highways and Public Transportation, Highway Design Division, Austin.
- Johnston, A., L. M. Bezeau, and Smoliak
1967 Variation in Silica Content of Range Grasses. *Canadian Journal of Plant Science* 47:65-71.
- Jones, J. G., and V. M. Bryant, Jr.
1992 Phytolith Taxonomy in Selected Species of Texas Cacti. In *Phytolith Systematics: Emerging Issues*, edited by G. Rapp, Jr., and S. C. Mulholland, pp. 214-238. Plenum Press, New York.
- Jones, J. K., Jr.
1993 The Concept of Threatened and Endangered Species as Applied to Texas Mammals. *The Texas Journal of Science* 45:115-128.
- Jones, J. K., Jr., and C. Jones
1992 Revised Checklist of Recent Land Mammals of Texas, with Annotations. *The Texas Journal of Science* 44:53-74.
- Jones, R. L., and A. H. Beavers
1964 Variation of Opal Phytolith Content Among Some Great Soil Groups in Illinois. *Soil Science Society of America* 28:711-712.
- Kalisz, P. J., and S. E. Boettcher
1990 Phytolith Analysis of Soils at Buffalo Beats, a Small Forest Opening in Southeastern Ohio. *Bulletin of the Torrey Botanical Club* 117:445-449.
- Katzenberg, M. A., H. P. Schwartz, and M. Knyf
1995 Stable Isotope Evidence for Maize Horticulture and Paleodiet in Southern Ontario, Canada. *American Antiquity* 60(2):335-350.
- Kaufman, T. S.
1980 *Early Prehistory of the Clear Lake Area, Lake County, California*. Unpublished Ph.D. dissertation, University of California, Los Angeles.
- Kelly, R., and L. C. Todd
1988 Coming into the Country: Early Paleoindian Hunting and Mobility. *American Antiquity* 53:231-244.
- Kindscher, K.
1987 *Edible Wild Plants of the Prairie*. University Press of Kansas, Lawrence.
- Kingston, J. C., R. B. Cook, R. G. Kreis Jr., and Cambu
1990 Paleocological Investigation of Recent Lake Acidification in the Northern Great Lake States. *Journal of Paleolimnology* 4:153-201.
- Kitchell, J. A., and D. L. Clark
1979 Distribution, Ecology, and Taxonomy of Recent Freshwater Ostracoda of Lake Mendota, Wisconsin. *University of Wisconsin Natural History Series* 1:1-24.
- Klein, R. G., and K. Cruz-Urbe
1984 *The Analysis of Animal Bones from Archeological Sites*. University of Chicago Press, Chicago.
- Klein, R. L., and J. W. Geis
1978 Biogenic Silica in the Pinaceae. *Soil Science* 126:145-156.
- Knight, J. A.
1985 *Differential Preservation of Calcined Bone at the Hirundo Site, Alton, Maine*. Unpublished Master's thesis, Department of Anthropology, Orono, Maine.
- Koch, C. P.
1989 *Taphonomy: A Bibliographic Guide to the Literature*. Center for the Study of First Americans, Orono, Maine.
- Kontrovitz, M., J. M. Slack, and Y. Zhao
1991 On the Use of Some Phosphates in the Preparation of Ostracode Shells. *Journal of Micropalaeontology* 10(2):121-126.
- Kornfeld, M.
1988 The Rocky Folsom Site: A Small Folsom Assemblage from the Northwestern Plains. *North American Archaeologist* 9:197-222.
- Kotter, S. M.
1985 *Cherry Tree Shelter: Excavation of a Stratified Late Archaic and Neolithic Rockshelter, Travis County, Texas*. Research Report No. 92. Texas Archeological Survey, The University of Texas at Austin.
- Krammer, K., and H. Lange-Bertalot
1986 Bacillariophyceae I. Teil. Naviculaceae. *Susswasserflora von Mitteleuropa* Band 2(1):876.
- 1991 Bacillariophyceae III. Teil. Centrales, Fragilariaceae, Eunotiaceae. *Susswasserflora von Mitteleuropa* Band 2(3):576.
- Kreutzer, L. A.
1992 Bison and Deer Bone Mineral Densities: Comparisons and Implications for the Interpretation of Archaeological Faunas. *Journal of Archaeological Science* 19:271-294.
- Kroeber, A. L.
1962 The Rancho La Brea Skull. *American Antiquity* 27:416-419.
- Krueger, H. W., and C. H. Sullivan
1984 Models for Carbon Isotope Fractionation between Diet and Bone. In *Stable Isotopes in Nutrition*, edited by J. E. Turnlund and P. E. Johnson, pp. 205-222. Symposium Series 258. American Chemical Society, Washington, D.C.
- Kuhn, D. L., J. L. Plafkin, and J. Cairns Jr.
1981 Qualitative Characterization of Aquatic Environments Using Diatom Life-Form Strategies. *Transactions of the American Microscience Society* 100(2):165-182.

- Kutac, E. A.
1994 Birds. In *Birds and Other Wildlife of South Central Texas*, by E. A. Kutac, and S. C. Caran, pp. 47-102. University of Texas Press, Austin.
- Kutac, E. A., and S. C. Caran
1994 *Birds and Other Wildlife of South Central Texas*. University of Texas Press, Austin.
- La Rocque, A.
1966 Pleistocene Mollusca of Ohio. *State of Ohio, Department of Natural Resources, Division of Geological Survey Bulletin* 62:1-800.
- Lawlor, E. J.
1995 Archaeological Site-formation Processes Affecting Plant Remains in the Mojave Desert. Ph.D. dissertation, University of California, Riverside. University Microfilms International, Ann Arbor.
- Lawrence, B.
1951 *Post-Cranial Skeletal Characters of Deer, Pronghorn, and Sheep-Goat With Notes on Bos and Bison*. Papers of the Peabody Museum of American Archaeology and Ethnology Vol. 35, No. 2, Part 2. Harvard University, Cambridge.
- Leechman, D.
1951 Bone Grease. *American Antiquity* 16:355-356.
- Leonard, A. B.
1943 The Mollusca of Meade and Clarke Counties, Kansas. *Transactions of the Kansas Academy of Science* 46:226-240.
- Lewall, E. F., and I. M. Cowan
1963 Age Determination in Black-Tailed Deer by Degree of Ossification of the Epiphyseal Plate in the Lone Bones. *Canadian Journal of Zoology* 41:629-636.
- Lewis, H. T.
1973 *Patterns of Indian Burning in California: Ecology and Ethnohistory*. Ballena Press, Ramona, California.
- Lintz, C. R.
1976 The McGrath Site of the Panhandle Aspect. *Oklahoma Anthropological Society Bulletin* 25:1-110.
- Linzey, A. V.
1983 *Synaptomys cooperi*. *Mammalian Species* 210:1-5.
- Little, E. A., and M. J. Schoeninger
1995 The Late Woodland Diet on Nantucket Island and the Problem of Maize in Coastal New England. *American Antiquity* 60 (2):351-368.
- Lohman, K. E.
1935 Diatoms from Quaternary Lake Beds near Clovis, New Mexico. *Journal of Paleontology* 9:455-459.
- Lowe, R.
1974 *Environmental Requirements*. EPA-670/4-74-005 U.S. Environmental Protection Agency, Cincinnati, Ohio.
- Lundelius, E. L., Jr.
1960 *Mylohyus nasutus*, Long-Nosed Peccary of the Texas Pleistocene. *Bulletin of the Texas Memorial Museum* No. 1. Texas Memorial Museum, The University of Texas at Austin.
- 1962 Appendix 2: Nonhuman Skeletal Material from the Kyle Site. In *The Kyle Site: A Stratified Central Texas Aspect Site in Hill County, Texas*, edited by E. B. Jelks, pp. 111-112. Archaeology Series No. 5. Department of Anthropology, The University of Texas at Austin.
- 1967 Late Pleistocene and Holocene Faunal History of Central Texas. In *Pleistocene Extinctions: The Search for a Cause*, edited by P. S. Martin, and H. E. Wright, pp. 287-319. Yale University Press, New Haven.
- 1974 The Last Fifteen Thousand Years of Faunal Change in North America. *The Museum Journal XV: History and Prehistory of the Lubbock Lake Site*, edited by C. C. Black, pp. 141-160. West Texas Museum Association, Lubbock.
- 1985 Pleistocene Vertebrates from Laubach Cave. In *Edwards Aquifer-Northern Segment, Travis, Williamson, and Bell Counties, Texas*, edited by C. M. Woodruff, F. Snyder, L. De La Garza, and R. Slade, pp. 41-45. Guidebook No. 8. Austin Geological Society, Texas.
- 1986 Vertebrate Paleontology of the Balcones Fault Trend. In *The Balcones Escarpment: Geology, Hydrology, Ecology and Social Development in Central Texas*, edited by P. L. Abbott, and C. M. Woodruff, pp. 41-50. Geological Society of America Annual Meeting, San Antonio, Texas.
- 1992a Quaternary Paleofaunas of the Southwest. In *Proboscidean and Paleoindian Interactions*, edited by J. W. Fox, C. B. Smith, and K. T. Wilkins, pp. 35-49. Baylor University Press, Waco.
- 1992b Quaternary Faunal Assemblages from Central Texas. In *Late Cenozoic Alluvial Stratigraphy and Prehistory of the Inner Gulf Coastal Plain, South-Central Texas*, (draft) edited by R. D. Mandel, and S. C. Caran. Lubbock Lake Landmark Quaternary Research Center Series No. 4.
- 1992c The Avenue Local Fauna, Late Pleistocene Vertebrates from Terrace Deposits at Austin, Texas. *Annales Zoologici Fennici* 28:329-340.
- 1993 Quaternary Faunal Assemblages from Central Texas. Unpublished manuscript on file at the Vertebrate Paleontology Laboratory, The University of Texas at Austin.
- Lundelius, E. L., Jr., R. W. Graham, E. Anderson, J. Guilday, J. A. Holman, D. W. Steadman, and S. D. Webb
1983 Terrestrial Vertebrate Faunas. In *Late Quaternary Environments of the United States, Vol. 1, The Late Pleistocene*, edited by S. C. Porter, pp. 311-353. University of Minnesota Press, Minneapolis.

- Lyman, R. L.
 1982a Archaeofaunas and Subsistence Studies. In *Advances in Archaeological Method and Theory*, Vol. 5, edited by M. B. Schiffer, pp. 331-393. Academic Press, New York.
 1982b *The Taphonomy of Vertebrate Archaeofaunas: Bone Density and Differential Survival of Fossil Classes*. Ph.D. dissertation, University of Washington. University Microfilms, Ann Arbor.
 1984 Bone Density and Differential Survivorship of Fossil Classes. *Journal of Anthropological Archaeology* 3:259-299.
 1985 Bone Frequencies: Differential Transport, In Situ Destruction, and the MGUI. *Journal of Archaeological Science* 12:221-236.
 1987 Archaeofaunas and Butchery Studies: A Taphonomic Perspective. In *Advances in Archaeological Method and Theory*, Vol. 10, edited by M. B. Schiffer, pp. 249-337. Academic Press, New York.
 1988 Was There a Last Supper at Last Supper Cave? In *Danger Cave, Last Supper Cave, and Hanging Rock Shelter: The Faunas*, edited by D. K. Grayson, pp. 81-104. Anthropological Papers Vol. 66, Part 1. American Museum of Natural History, New York.
 1993 Density-Mediated Attrition of Bone Assemblages: New Insights. In *From Bone to Behavior: Ethnoarchaeological Contributions to the Interpretation of Faunal Remains*, edited by J. Hudson, pp. 324-341. Occasional Paper No. 21. Center for Archaeological Investigations, Southern Illinois University at Carbondale.
 1994 Quantitative Units and Terminology in Zooarchaeology. *American Antiquity* 59(1):36-71.
- Lyman, R. L., and G. L. Fox
 1989 A Critical Evaluation of Bone Weathering as an Indication of Bone Assemblage Formation. *Journal of Archaeological Science* 16:293-317.
- Lynott M. J.
 1979 Prehistoric Bison Populations of Northcentral Texas. *Bulletin of the Texas Archeological Society* 50:89-101.
 1980 Hypothesis Testing and Historic Preservation at Bear Creek Shelter, Hill County, Texas. *Bulletin of the Texas Archeological Society* 51:209-241.
- Mann, L. K.
 1952 Anatomy of the Garlic Bulb and Factors Affecting Bulb Development. *Hilgardia* 21(8):195-251.
- Marean, C. W., and C. L. Ehrhardt
 1995 Paleoanthropological and Paleoecological Implications of the Taphonomy of a Sabertooth's Den. *Journal of Human Evolution* 29:515-547.
- Marks, M. K., J. C. Rose, and E. L. Buie
 1988 *Bioarchaeology of the Seminole Sink. Seminole Sink: Excavation of a Vertical Shaft Tomb, Val Verde County, Texas*, edited by S. A. Turpin, pp. 75-118. Plains Anthropologist Memoir No. 22. Plains Anthropological Society, Lincoln.
- Marshall, F., and T. Pilgram
 1993 NISP vs. MNI in Quantification of Body-Part Representation. *American Antiquity* 58:261-269.
- Martin, R. A.
 1968 Further Study of the Friesenhahn Cave *Peromyscus*. *The Southwestern Naturalist* 13:253-266.
- Martin, W. A., with contributions by B. C. Yates, and G. J. Fritz
 1987 Exploitation of Subsistence Resources Within the Mountain Creek Drainage. In *Late Holocene Prehistory of the Mountain Creek Basin*, Volume 1b, edited by D. E. Peter, and R. W. Moir, pp. 15-1 through 15-13. Archaeology Research Program, Institute for the Study of Early Man, Southern Methodist University, Dallas.
- Masson, M. A., and M. W. Holderby
 1994 Subsistence Patterns at 41HY209 and 41HY202: An Analysis of Vertebrate Faunal Remains. In *Archaic and Late Prehistoric Human Ecology in the Middle Onion Creek Valley, Hays County, Texas. Volume 2, Topical Studies*, edited by R. A. Ricklis and M. B. Collins, pp. 403-489. Studies in Archeology No. 19. Texas Archeological Research Laboratory, The University of Texas at Austin.
- Matteson, M. R.
 1960 Reconstruction of Prehistoric Environments through the Analysis of Molluscan Collections from Shell Middens. *American Antiquity* 26:117-120.
- McCarthy, H.
 1993 Managing Oaks and the Acorn Crop. In *Before the Wilderness: Environmental Management by Native Californians*, edited by T. C. Blackburn and K. Anderson, pp. 213-228. Ballena Press, Ramona, California.
- McDonald, J.
 1974 Appendix II: Non-Human Bones from the Loeve-Fox Site: A Preliminary Analysis. In *Archeological Investigations at the Loeve-Fox Site, Williamson County, Texas*, by E. R. Prewitt, pp. 132-134. Research Report No. 49. Texas Archeological Survey, The University of Texas at Austin.
- McGraw, A. J.
 1985 The Importance of White-Tailed Deer at 41BX228. In *The Panther Springs Creek Site: Cultural Change and Continuity Within the Upper Salado Creek Watershed, South-Central Texas*, by S. L. Black, and A. J. McGraw, pp. 288-289. Archaeological Survey Report No. 100. Center for Archaeological Research, The University of Texas at San Antonio.

- McGregor, D. E., and J. E. Bruseth (editors)
 1987 *Hunter-Gatherer Adaptations Along the Prairie Margin: Site Excavations and Synthesis of Prehistoric Archaeology*. Richland Creek Technical Series, Vol. 3. Archaeology Research Program, Institute for the Study of Earth and Man, Southern Methodist University, Dallas.
- McGuire, K. R.
 1980 Cave Sites, Faunal Analysis, and Big-Game Hunters of the Great Basin: A Caution. *Quaternary Research* 14:263-268.
- McKenna, M. C.
 1965 Collecting Microvertebrate Fossils by Washing and Screening. In *Handbook of Paleontological Techniques*, edited by Bernhard Kummel and David Raup, pp. 193-203. W.H. Freeman and Company, San Francisco.
- McKusick, C.
 1986 The Avian Remains. In *Archeological Investigations at Antelope House*, by D. P. Morris, pp. 142-158. National Park Service, U.S. Department of the Interior, Washington, D.C.
- Meade, G. E.
 1961 The Saber-Toothed Cat, *Dinobastis serus*. *Bulletin of the Texas Memorial Museum* 2:25-60. Texas Memorial Museum, The University of Texas at Austin.
- Meltzer, D. J.
 1988 Late Pleistocene Human Adaptations in Eastern North America. *Journal of World Prehistory* 2(1):1-52.
 1991 Altithermal Archaeology and Paleoecology at Mustang Springs, on the Southern High Plains. *American Antiquity* 56:236-267.
- Meltzer, D. J., and B. D. Smith
 1986 Paleoindian and Early Archaic Subsistence Strategies in Eastern North America. In *Foraging, Collecting, and Harvesting: Archaic Period Subsistence and Settlement in the Eastern Woodlands*, edited by S. W. Neusius, pp. 3-31. Occasional Paper 6. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
- Metcalf, A. L.
 1984 Land Snails (Gastropoda: Pulmonata) from Cimarron County, Oklahoma. *The Texas Journal of Science* XXXVI(1):53-64.
- Metcalf, D., and K. T. Jones
 1988 A Reconstruction of Animal Body-Part Utility Indices. *American Antiquity* 53:486-504.
- Miksicek, C. H.
 1987 Formation Processes of the Archaeobotanical Record. In *Advances in Archaeological Method and Theory, Volume 10*, edited by M. B. Schiffer, pp. 211-247. Academic Press, New York.
- 1985 Paleoecology: The Charcoal Evidence. In *Excavations at the Valencia Site, A Preclassic Hohokam Village in the Southern Tucson Basin*, edited by W. H. Doelle, pp. 235-239. Anthropological Papers 3. Institute for American Research, Tucson.
- Milstead, W. W.
 1956 Fossil Turtles of the Friesenhahn Cave, Texas, with the Description of a New Species of *Testudo*. *Copeia* 3:162-171.
- Minnis, P. E.
 1981 *Economic and Organizational Responses to Food Stress by Non-Stratified Societies: An Example from Prehistoric New Mexico*. Unpublished Ph.D. dissertation. Department of Anthropology, University of Michigan, Ann Arbor.
- Morey, D. F., and W. E. Klippel
 1991 Canid Scavenging and Deer Bone Survivorship at an Archaic Period Site in Tennessee. *Archaeozoologia* 4(1):11-28.
- Mulholland, S. C.
 1986 Classification of Grass Silica Phytoliths. In *Plant Opal Phytolith Analysis in Archaeology and Paleoecology: Proceedings of the 1984 Phytolith Research Workshop, Raleigh, North Carolina*. Occasional Papers of the Phytolitharien Vol. 1.
 1989 Phytolith Shape Frequencies in North Dakota Grasses: A Comparison to General Patterns. *Journal of Archaeological Science* 16:489-511.
- Mulholland, S. C., and G. Rapp Jr.
 1992 A Morphological Classification of Grass Silica-Bodies. In *Phytolith Systematics: Emerging Issues*, edited by G. Rapp Jr., and S. C. Mulholland, pp. 65-90. Plenum Press, New York.
- Munson, P., P. Parmalee, and R. Yarnell
 1971 Subsistence Ecology of Scovill, A Terminal Middle Woodland Village. *American Antiquity* 35(4):410-431.
- Murray, H. D.
 1982 An Analysis of Unionids (Freshwater Mussels) Recovered in Phase I Archaeological Investigations at Choke Canyon Reservoir. In *Archaeological Investigations at Choke Canyon Reservoir, South Texas: The Phase I Findings*, edited by G. D. Hall, S. L. Black, and C. Graves, pp. 541-555. Center for Archaeological Research, the University of Texas at San Antonio.
 1986 Freshwater Bivalves. *The Clemente and Herminia Hinojosa Site, 41JW8: Atoyah Horizon Campsite in Southern Texas*, edited by S. L. Black. Special Report 18. Center for Archaeological Research, The University of Texas at San Antonio.
- Murray, H. D., and A. B. Leonard
 1962 *Handbook of Unionid Mussels in Kansas*. Misc. Publications 28. Museum of Natural History, University of Kansas, Lawrence.

- Murry, P. R.
- 1978 Vertebrate Faunal Remains. In *An Archaeological Assessment of the Bear Creek Shelter, Lake Whitney, Texas*, by M. J. Lynott, pp. 48-70. Research Report No. 115. Archaeology Research Program, Southern Methodist University, Dallas.
- 1982 Ecology, Seasonality, and Faunal Utilization. In *Settlement of the Prairie Margin: Archaeology of the Richland Creek Reservoir, Navarro and Freestone Counties, Texas, 1980-1981*. Archaeological Monographs No. 1. Archaeology Research Program, Southern Methodist University, Dallas.
- 1987a Analysis of Faunal Remains. In *The Bird Point Island and Adams Ranch Sites: Methodological and Theoretical Contributions to North Central Texas Archaeology*, edited by J. E. Bruseh and W. A. Martin, pp. 136-140. Richland Creek Technical Series, Vol. 2. Archaeology Research Program, Institute for the Study of Earth and Man, Southern Methodist University, Dallas.
- 1987b Vertebrate Faunal Assemblage. In *The Bird Point Island and Adams Ranch Sites: Methodological and Theoretical Contributions to North Central Texas Archaeology*, edited by J. E. Bruseh and W. A. Martin, pp. 247-252. Richland Creek Technical Series, Vol. 2. Archaeology Research Program, Institute for the Study of Earth and Man, Southern Methodist University, Dallas.
- Neck, R. W.
- 1981a Analysis of Gastropods Recovered from Archeological Sites in the Palmetto Bend Reservoir. In *Phase III: Prehistoric Archeological Research Within Palmetto Bend Reservoir, Jackson County, Texas*, edited by Research Staff, pp. 121-127. Research Report 82. Texas Archeological Survey, The University of Texas at Austin.
- 1981b Gastropods of the McKinney Homestead (41TV289), McKinney Falls State Park, Travis County, Texas. *Bulletin of the Texas Archeological Society* 51:136-139.
- 1984a Living Gastropods of the Eastern Caprock Escarpment of Texas. *The Nautilus* 98:68-74.
- 1984b *Restricted and Declining Nonmarine Molluscs of Texas*, edited by R. W. Neck, pp. 1-17. Technical Series 34. Texas Parks and Wildlife Department, Austin.
- 1986 The Balcones Fault Zone as a Major Zoogeographic Feature. In *The Balcones Escarpment: Geology, Hydrology, Ecology and Social Development in Central Texas*, edited by P. L. Abbott, and C. M. Woodruff, pp. 35-40. Geological Society of America Annual Meeting, San Antonio.
- 1987a Changing Holocene Snail Faunas and Environments Along the Eastern Caprock Escarpment of Texas. *Quaternary Research* 27:312-322.
- 1987b Terrestrial Gastropod Succession in a Late Holocene Stream Deposit in South Texas. *Quaternary Research* 27:202-209.
- 1988 Analysis of the Paleomolluscan Assemblages of the Wilson-Leonard Site (41WM235). Ms. on file at the Texas Archeological Research Laboratory, The University of Texas at Austin.
- 1992 Late Pleistocene and Holocene Environments in the Medina Valley of Texas as Revealed by Nonmarine Molluscs. In *Late Cenozoic Alluvial Stratigraphy and Prehistory of the Inner Gulf Coastal Plain, South-central Texas*, edited by R. D. Mandel and S. C. Caran. Guidebook of the 10th Annual Meeting, South-central Friends of the Pleistocene.
- 1993 Analysis of the Paleomolluscan Assemblages of the Wilson-Leonard Site (41WM235), 1992 Excavation. Ms. On file at the Texas Archeological Research Laboratory, The University of Texas at Austin.
- 1994 Analysis of Molluscan Remains from 41DL270. *Archaeological Investigations in the Denton Creek Floodplain: Data Recovery Excavations at 41DL270, Denton and Dallas Counties, Texas*, edited by D. Anthony and D. O. Brown. Archaeological Series 37. Hicks and Co., Austin.
- Neves, W. A., and H. M. Pucciarelli
- 1989 Extra-Continental Biological Relationships of Early South American Human Remains: a Multivariate Analysis. *Ciencia e Cultura* 41:566-575.
- 1991 Morphological Affinities of the First Americans: An Exploratory Analysis Based on Early South American Human Remains. *Journal of Human Evolution* 21:261-273.
- Nicholson, R. A.
- 1996 Bone Degradation, Burial Medium and Species Representation: Debunking the Myths, an Experiment-based Approach. *Journal of Archaeological Science* 23(4):513-533.
- Noe-Nygaard, N.
- 1977 Butchering and Marrow Fracturing as a Taphonomic Factor in Archeological Deposits. *Paleobiology* 3:218-237.
- Nordt, L. C., T. W. Boutton, C. T. Hallmark, and M. Waters
- 1994 Late Quaternary Vegetation and Climatic Change in Central Texas Based on the Isotopic Composition of Organic Carbon. *Quaternary Research* 41:109-120.
- Ollendorf, A. L.
- 1992 Towards a Classification Scheme of Sedge (Cyperaceae). In *Phytolith Systematics: Emerging Issues*, edited by G. Rapp Jr., and S. C. Mulholland, pp. 91-106. Plenum Press, New York.
- Olsen, S. J.
- 1968 *Fish, Amphibian and Reptile Remains from Archaeological Sites*. Papers of the Peabody Museum of American Archaeology and Ethnology, Vol. 56, No. 2. Harvard University, Cambridge.

- 1990 Was Early Man in North America a Big Game Hunter? In *Hunters of the Recent Past*, edited by L. B. Davis and B. O. K. Reeves, pp. 103-110. Unwin Hyman, London.
- Olsen, S. L., and J. W. Olsen
1981 A Comment on Nomenclature in Faunal Studies. *American Antiquity* 46:192-194.
- Opler, M. E.
1941 *An Apache Life-Way: The Economic, Social, and Religious Institutions of the Chiricahua Indians*. University of Chicago Press, Chicago.
- Orr, P. C.
1962 The Arlington Springs Site, Santa Rosa Island. *American Antiquity* 27:417-419.
1956 Pleistocene Man in Fishbone Cave, Pershing County, Nevada. *Nevada State Museum Bulletin* 2:1-20.
1974 Notes on the Archaeology of the Winnemucca Lake Caves, 1952-1958. *Nevada State Museum Anthropological Papers* 16:47-59.
- Ortner, D. J., and W. G. J. Putschar
1981 *Identification of Pathological Conditions in Human Skeletal Remains*. Smithsonian Contributions to Anthropology 57. Smithsonian Institution, Washington, D.C.
- Owen, J. G., and J. R. Dixon
1989 An Ecogeographic Analysis of the Herpetofauna of Texas. *The Southwestern Naturalist* 34:165-180.
- Owenby, M.
1950 The Genus *Allium*. *Research Studies of the State College of Washington* 18:181-222.
- Park, I. K.
1985 Stomata in Onion Bulbs. *Phytomorphology* 35(1,2):83-85.
- Parmalee, P. W.
1948 *Land Mollusca of North America (North of Mexico)*, edited by H. A. Pisbry. Monograph 2. Academy of Natural Sciences of Philadelphia.
1958 Marine Shells of Illinois Indian Sites. *The Nautilus* 71:131-139.
1967 The Fresh-Water Mussels of Illinois. *Illinois State Museum Popular Science Series* 8:1-108.
1972 *Animals Utilized by Woodland Peoples Occupying the Apple Creek Site, Illinois*, edited by P. W. Parmalee, A. A. Paloumpis, and D. Wilson. Report of Investigations 23. Illinois State Museum, Springfield.
- Parmalee, P. W., A. A. Paloumpis, and N. Wilson
1972 *Animals Utilized by Woodland Peoples Occupying the Apple Creek Site, Illinois*. Report of Investigations 23. Illinois State Museum, Springfield.
- Patrick, R.
1938 The Occurrence of Flints and Extinct Animals in Pluvial Deposits near Clovis, New Mexico. Part V. Diatom Evidence from the Mammoth Pit. *Proceedings of the Academy of Natural Sciences of Philadelphia* 40:15-24.
- Patrick, R., and C. W. Reimer
1966 *The Diatoms of the United States 1*. Monograph 13. Academy of Natural Sciences of Philadelphia, Philadelphia.
1975 *The Diatoms of the United States 2, Part 1*. Monograph 13. Academy of Natural Sciences of Philadelphia, Philadelphia.
- Patterson, L. W.
1992 Prehistoric Bison in Southeast Texas. *Houston Archaeological Society Journal* 102:14-19.
- Patton, T. H.
1962 *Fossil Vertebrates from Miller's Cave, Llano County, Texas*. Unpublished Master's thesis, Department of Geological Sciences, The University of Texas at Austin.
1963 Fossil Vertebrates for Miller's Cave, Llano County, Texas. *Bulletin of the Texas Memorial Museum* 7:1-41. Texas Memorial Museum, The University of Texas at Austin.
- Payne, S.
1972 On the Interpretation of Bone Samples from Archaeological Sites. In *Papers in Economic Prehistory*, edited by E. S. Higgs, pp. 65-82. Cambridge University Press, Cambridge.
1975 Partial Recovery and Sample Bias. In *Archaeozoological Studies*, edited by A. T. Clason, pp. 7-17. American Elsevier, New York.
- Peale, T. R.
1978 Uses of Brains and Marrow of Animals among the Indians of North America. *Minnesota Archaeologist* 37(2):56-58.
- Pearsall, D. M.
1989 *Paleoethnobotany: A Handbook of Procedures*. Academic Press, San Diego.
- Person, D. A., Jr., R. J. Widmer, and W. Taylor
1990 Soil Chemistry and Archaeological Preservation at Copan. Paper presented at the 55th Annual Meeting of the Society for American Archaeology, Pittsburgh, Pennsylvania.
- Perttula, T. K.
1989 The Paleoindian Archaeological Record in Northeast Texas: Evidence from Avocational Collecting Activities. *Current Research in the Pleistocene* 6:19-21.
- Perttula, T. K., C. Crane, and J. Bruseth
1982 A Consideration of Caddoan Subsistence. *Southeastern Archaeology* 1(2):89-102.

- Peterson, R. T.
1960 *A Field Guide to the Birds of Texas and Adjacent States*. Houghton Mifflin, Boston.
- Pettus, D.
1956 Fossil Rabbits (Lagomorpha) of the Friesenhahn Cave Deposit, Texas. *The Southwestern Naturalist* 1(3):109-115.
- Phelps, E., J. Few, B. P. Gatliff, D. B., D. G. Steele, and F. A. Weir
1994 Burial to Bronze: Excavation Analysis and Facial Reconstruction of a Burial from the Wilson-Leonard Site, Texas. *Bulletin of the Texas Archeological Society* 62:75-86.
- Pisbry, H. A.
1948 Land Mollusca of North America (North of Mexico). *Academy of Natural Sciences of Philadelphia Monograph* 2(2).
- Piperno, D. R.
1988 *Phytolith Analysis*. Academic Press, New York.
- Powell, J. F., and D. G. Steele
1994 Diet and Health of Paleoindians: An Examination of Early Holocene Human Dental Remains. In *Paleonutrition: The Diet and Health of Prehistoric Americans*, edited by K. D. Sobolik, pp. 178-194. Occasional Paper No. 22. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
- Prewitt, E. R.
1974 *Archeological Investigations at the Loeve-Fox Site, Williamson County, Texas*. Research Report 49. Texas Archeological Survey, The University of Texas at Austin.
- Price, T. D.
1989 *The Chemistry of Prehistoric Human Bone*. Cambridge University Press, Cambridge.
- Protsch, R. R.
1978 *Catalog of Fossil Hominids of North America*. Gustav Fischer, New York.
- Purdue, J. R.
1983a Epiphyseal Closure in White-tailed Deer. *Journal of Wildlife Management* 47:1207-1213.
1983b Methods of Determining Sex and Body Size in Prehistoric Samples of White-tailed Deer (*Odocoileus virginianus*). *Transactions of the Illinois State Academy of Science* 76:351-357.
1986 The Size of White-tailed Deer (*Odocoileus virginianus*) During the Archaic Period in Central Illinois. In *Foraging, Collecting, and Harvesting: Archaic Period Subsistence and Settlement in the Eastern Woodlands*, edited by S. W. Neusius, pp. 65-95. Occasional Paper No. 6. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
- 1987 Estimation of Body Weight of White-Tailed Deer (*Odocoileus virginianus*) from Bone Size. *Journal of Ethnobiology* 7(1):1-12.
- 1989 Changes During the Holocene in the Size of White-Tailed Deer (*Odocoileus virginianus*) from Central Illinois. *Quaternary Research* 32:307-316.
- 1991 Dynamism in the Body Size of White-Tailed Deer (*Odocoileus virginianus*) from Southern Illinois. In *Beamers, Bobwhites, and Blue-Points: Tributes to the Career of Paul W. Parmalee*, edited by J. R. Purdue, W. E. Klippel, and B. W. Styles, pp. 277-283. Illinois State Museum, Springfield.
- Ramsey, C. W., and M. J. Shult
n.d. *The Age of a Deer*. Texas Agricultural Extension Service, College Station.
- Reddell, J. R.
1965 A Checklist of the Cave Fauna of Texas. I. The Invertebrata (Exclusive of Insecta). *The Texas Journal of Science* 17:143-187.
1970 A Checklist of the Cave Fauna of Texas. IV. Additional Records of Invertebrata (Exclusive Insecta). *The Texas Journal of Science* 21:389-415.
- Redder, A. J.
1985 Horn Shelter Number 2: The South End, a Preliminary Report. *Central Texas Archeologist* 10:37-65.
- Reitz, E. J.
1987 Zooarchaeological Theory and Method. In *The Zooarchaeology of Eastern North America: History, Method and Theory, and Bibliography*, edited by A. E. Bogan, and N. D. Robison, pp. 27-65. Miscellaneous Paper No. 12. Tennessee Anthropological Association, UT Graphic Arts Service, University of Tennessee, Knoxville.
- Reynolds, B.
1978 Beothuk. In *Northeast*, edited by B. G. Trigger, pp. 101-108. Handbook of North American Indians, vol. 15, W. C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Ricklis, R. A.
1992 The Spread of a Late Prehistoric Bison Hunting Complex: Evidence from the South-Central Coastal Prairie of Texas. *Plains Anthropologist* 37:261-273.
- Ringrose, T. J.
1993 Bone Counts and Statistics: A Critique. *Journal of Archaeological Science* 20:121-157.
- Riskind, D. H., and D. D. Diamond
1986 Plant Communities of the Edwards Plateau of Texas: An Overview Emphasizing the Balcones Escarpment Zone Between San Antonio and Austin with Special

- Attention to Landscape Contrasts and Natural Diversity. In *The Balcones Escarpment: Geology, Hydrology, Ecology and Social Development in Central Texas*, edited by P. L. Abbott, and C. M. Woodruff, pp. 21-32. Geological Society of America Annual Meeting, San Antonio.
- 1988 An Introduction to Environments and Vegetation. In *Edwards Plateau Vegetation: Plant Ecological Studies in Central Texas*, edited by B. B. Amos, and F. R. Gehlbach, pp. 1-15. Baylor University Press, Waco.
- Robbins, W. W., J. P. Harrington, and B. Freire-Marreco
1916 *Ethnobotany of the Tewa Indians*. Bureau of American Ethnology Bulletin 55. Smithsonian Institution, Washington, D.C.
- Robinson, R.
1979 Biosilica Analysis: Paleoenvironmental Reconstruction of 41LL254. In *An Intensive Archaeological Survey of Enchanted Rock State Natural Area*, edited by C. Assad and D. Potter, pp. 125-140. Archaeological Survey Report 84. Center for Archaeological Research, The University of Texas at San Antonio.
- 1982 Biosilica Analysis of Three Prehistoric Archaeological Sites in the Choke Canyon Reservoir, Live Oak County Texas: Preliminary Summary of Climatic Implications. In *Archaeological Investigations at Choke Canyon Reservoir, South Texas: Phase I Findings*, edited by G. Hall, S. Black, and C. Graves, pp. 597-610. Choke Canyon Series, Vol. 5. Center for Archaeological Research, The University of Texas at San Antonio.
- Romanoff, A. L., and A. J. Romanoff
1949 *The Avian Egg*. John Wiley & Sons, New York.
- Roth, E. L.
1972 Late Pleistocene Mammals from Klein Cave, Kerr County, Texas. *The Texas Journal of Science* 24:75-84.
- Round, F. E.
1981 *The Ecology of the Algae*. Cambridge University Press, Cambridge.
- Sanchez, J. L., and B. S. Shaffer
1993a Faunal Analysis. In *Archaeological Investigations in Bull Branch: Results of the 1990 Summer Archaeological Field School*, edited by D. L. Carlson, pp. 47-61. Research Report No. 19. Archaeological Resource Management Series, United States Army Fort Hood, Texas.
- 1993b Faunal Analysis. In *Archaeological Investigations in Spicewood Creek: Results of the 1991 Summer Archaeological Field School*, edited by D. L. Carlson, pp. 53-69. Research Report No. 22. Archaeological Resource Management Series, United States Army Fort Hood, Texas.
- Schmid, E.
1972 *Atlas of Animal Bones for Prehistorians, Archaeologists and Quaternary Geologists*. Elsevier Publishing Company, New York.
- Schmidly, D. J.
1977 *The Mammals of Trans-Pecos Texas*. Texas A&M University Press, College Station.
- 1983 *Texas Mammals East of the Balcones Fault Zone*. Texas A&M University Press, College Station.
- 1991 *The Bats of Texas*. Texas A&M University Press, College Station.
- Schmitt, D. N., and K. E. Juell
1994 Toward the Identification of Coyote Scatological Faunal Accumulations in Archaeological Contexts. *Journal of Archaeological Science* 21:249-262.
- Schoeninger, M. J.
1989 Reconstructing Prehistoric Human Diet. In *The Chemistry of Prehistoric Human Bone*, edited by T. D. Price, pp. 38-67. Cambridge University Press, Cambridge.
- Schönwetter, M.
1960-1988 *Handbuch der Oologie*, Lieferungen 1-45, edited by W. Meise. Akademie-Verlag, Berlin.
- Scott, R. F., IV
1990 Modified Bone and Antler. In *Excavations at 41TG91, Tom Green County, Texas, 1978*, by D. Creel, pp. 153-159. Publications in Archaeology Report No. 38. Texas State Department of Highways and Public Transportation, Highway Design Division, Austin.
- Scott, R. F., IV, and D. Creel
1990 Vertebrate Faunal Analysis. In *Excavations at 41TG91, Tom Green County, Texas, 1978*, by D. Creel, pp. 165-208. Publications in Archaeology Report No. 38. Texas State Department of Highways and Public Transportation, Highway Design Division, Austin.
- Self, C. R.
1982 *Wood Heating Handbook*. TAB Books, Blue Ridge Summit, Pennsylvania.
- Semken, H. A., Jr.
1961 Fossil Vertebrates from Longhorn Cavern, Burnet County, Texas. *The Texas Journal of Science* 13:290-310.
- 1970 Paleoeological and Stratigraphic Significance of the Muskrat in Pleistocene Deposits. *Geological Society of America Bulletin* 81:3733-3738.
- Severinghaus, C. W.
1949 Tooth Development and Wear as Criteria of Age in White-tailed Deer. *Journal of Wildlife Management* 13(2):195-216.
- Shackleton, C. M., and R. Prins
1992 Charcoal Analysis and the "Principle of Least Effort"³A Conceptual Model. *Journal of Archaeological Science* 19:631-637.

- Shafer, H. J., and V. M. Bryant, Jr.
1977 *Archeological and Botanical Studies at Hinds Cave, Val Verde County, Texas*. Annual Report to the National Science Foundation. Anthropology Laboratory Special Series 1. Texas A&M University, College Station.
- Shaffer, B. S.
1992 Quarter-Inch Screening: Understanding Biases in Recovery of Vertebrate Faunal Remains. *American Antiquity* 57:129-136.
1994 Appendix III: Analysis of the Vertebrate Faunal Remains. In *The Life and Times of Toyah-Culture Folk: The Buckhollow Encampment Site 41KM16, Kimble County, Texas*, by L. Johnson, pp. 295-307. Office of the State Archeologist Report No. 38. Texas Department of Transportation and Texas Historical Commission, Austin.
1995 Appendix F: Analysis of Vertebrate Remains. In *NRHP Significance Testing of 57 Prehistoric Archeological Sites on Fort Hood, Texas, Volume II*, edited by J. T. Abbott and W. N. Trierweiler, pp. F-1 - F-8. Research Report No. 34. Archeological Resource Management Series, United States Army Fort Hood.
- Shaffer, B. S., and B. W. Baker
1992 *A Vertebrate Faunal Analysis Coding System: With North American Taxonomy and dBASE Support Programs and Procedures (Version 3.3)*. Technical Report No. 23. Museum of Anthropology, University of Michigan, Ann Arbor.
- Shaffer, B. S., and J. A. Neely
1992 Intrusive Anuran Remains in Pit House Features: A Test of Methods. *The Kiva* 57:343-351.
- Shaffer, B. S., and J. L. J. Sanchez
1994 Comparison of 1/8"-and 1/4"-Mesh Recovery of Controlled Samples of Small-to-Medium-Sized Mammals. *American Antiquity* 59(3):525-530.
- Shipman, P.
1981 *Life History of a Fossil: An Introduction to Taphonomy and Paleoecology*. Harvard University Press, Cambridge.
- Shipman, P., G. Foster, and M. Schoeninger
1984 Burnt Bones and Teeth: An Experimental Study of Color, Morphology, Crystal Structure and Shrinkage. *Journal of Archaeological Science* 11:307-325.
- Sidell, E. J.
1993 *A Methodology for the Identification of Archaeological Eggshell*. MASCA, The University Museum of Archaeology and Anthropology, University of Pennsylvania, Philadelphia.
- Smeins, F. E., and L. B. Merrill
1988 Long-term Change in a Semiarid Grassland. In *Edwards Plateau Vegetation: Plant Ecological Studies in Central Texas*, edited by B. Amos and F. Gelbach, pp. 101-114. Baylor University Press, Waco, Texas.
- Smith, B. D.
1986 The Archaeology of the Southwestern United States: From Dalton to de Sota (10,500-500 B.P.). In *Advances in World Archaeology, Vol. 5*, edited by F. Wendorf and A. E. Close, pp. 1-92. Academic Press, New York.
- Smith, H. H.
1933 Ethnobotany of the Forest Potawatomi Indians. *Milwaukee Public Museum Bulletin* 4:327-525.
- Smolen, M. J.
1981 *Microtus pinetorum*. *Mammalian Species* 147:1-7.
- Snow, C. C.
1948 *Indian Knoll Skeletons of Sites Oh2, Ohio County, Kentucky*. The University of Kentucky Reports in Anthropology Volume IV, Number 3, Part II. The University of Kentucky, Lexington.
- Sobolik, K. D., and D. G. Steele
1996 *A Turtle Atlas to Facilitate Archaeological Identifications*. Mammoth Site of Hot Springs, South Dakota, Inc. Fenske Companies, Rapid City, South Dakota.
- Sorrow, W. M., H. J. Shafer, and R. E. Ross
1967 *Excavations at Stillhouse Hollow Reservoir*. Papers of the Texas Archeological Salvage Project No. 11. Texas Archeological Salvage Project, The University of Texas at Austin.
- Spennemann, D. H. R., and S. M. Colley
1989 Fire in a Pit: The Effects of Burning on Faunal Remains. *ArchaeoZoologia* 3:51-64.
- Spiess, A.
1987 Faunal Remains: Archaeological Guidebooks. *The Northern Raven* 7(2):14-23.
- Stalling, D. T.
1990 *Microtus ochrogaster*. *Mammalian Species* 355:1-9.
- Staplin, F. L.
1963a Pleistocene Ostracoda of Illinois, Part 1, Subfamilies Candoninae, Cyprinae, General Ecology, Morphology. *Journal of Paleontology* 37:758-797.
1963b Pleistocene Ostracoda of Illinois, Part 2, Subfamilies Cyclopyrinae, Cypridopinae, Ilyocyprinae, Families Darwinulidae and Cythereidae, Stratigraphic Ranges and Assemblage Patterns. *Journal of Paleontology* 37:1164-1203.
- Steele, D. G.
1989 Zooarchaeology, Taphonomy and Preservation of the Fossil Faunal Assemblage. In *Interdisciplinary Workshop on the Physical-Chemical-Biological Processes Affecting Archeological Sites*, edited by C. C. Mathewson, pp. 65-84. U.S. Corps of Engineers, Washington, D.C.
1990 Taphonomic Provenience and Mammoth Bone Modification. In *Hunters of the Recent Past*, edited by L. B. Davis, and B. O. K. Reeves, pp. 87-102. Unwin Hyman, London.

- Steele, D. G., K. E. Byrd, L. McNatt, and G. Veni
 1984 Human and Non-Human Skeletal Remains Recovered from Sorcerer's Cave, Terrell County, Texas. *The Texas Journal of Science* 36(2-3):169-184.
- Steele, D. G., and D. L. Carlson
 1984 Excavation and Taphonomy of Mammoth Remains from the Duewall-Newberry Site, Brazos County, Texas. In *First International Conference on Bone Modification Abstracts*, pp. 34-35. Center for the Study of Early Man, University of Maine, Orono.
- 1989a Excavation and Taphonomy of Mammoth Remains from the Duewall-Newberry Site, Brazos County, Texas. In *Bone Modification*, edited by R. Bonnicksen and M. H. Sorg, pp. 413-430. Peopling of the Americas Publications. Center for the Study of First Americans, Institute of Quaternary Studies, University of Maine, Orono.
- 1989b Human Modification of North American Mammoth Remains at the Duewall-Newberry Site, Brazos County, Texas: An Example of an Initial Bone Processing Station. *ArchaeoZoologia* 3:65-70.
- Steele, D. G., and J. F. Powell
 1992 Peopling of the Americas: Paleobiological Evidence. *Human Biology* 64:303-336.
- 1993 Paleobiology of the First Americans. *Evolutionary Anthropology* 2:138-146.
- 1994 Paleobiological Evidence of the Peopling of the Americas. In *Method and Theory for Investigating the Peopling of the Americas*, edited by R. Bonnicksen, and D. G. Steele, pp. 141-164. Center for the Study of the First Americans, Department of Anthropology, Oregon State University, Corvallis.
- n.d. *An Osteological Examination of Prehistoric Hunters and Gatherers of the Southern Desert and Semi-Desert Regions of North America*. Manuscript on file. Department of Anthropology, Texas A&M University, College Station.
- Stenholm, N.
 1987 Plant Remains. In *Prehistoric Land Use in the Northern Rocky Mountains: A Perspective from the Middle Kootenai River Valley*, edited by A. V. Thoms, pp. 485-512. Washington State University, Pullman.
- Stephenson, R. L.
 1970 Archeological Investigations in the Whitney Reservoir Area, Central Texas. *Bulletin of the Texas Archeological Society* 41:37-286.
- Stewart, O. C.
 1954 The Forgotten Side of Ethnogeography. In *Method and Perspective in Anthropology: Papers in Honor Wilson D. Wallis*, edited by R. F. Spencer, pp. 211-248. University of Minnesota Press, Minneapolis.
- Stewart, T. D.
 1960 A Physical Anthropologist's View of the Peopling of the New World. *Southwest Journal of Anthropology* 16:259-273.
- 1973 *The People of America*. Charles Scribner's Sons, New York.
- Stinson, K. J., and H. A. Wright
 1969 Temperature of Headfires in the Southern Mixed Prairie of Texas. *Journal of Range Management* 22:169-174.
- Stoltman, J. B.
 1978 Temporal Models in Prehistory: An Example from Eastern North America. *Current Anthropology* 19:703-746.
- Storck, P. L., and A. E. Spiess
 1994 The Significance of New Faunal Identifications Attributed to an Early Paleoindian (Gainey Complex) Occupation at the Udora Site, Ontario, Canada. *American Antiquity* 59(1):121-142.
- Story, D. A., J. A. Guy, B. A. Burnett, M. D. Freeman, J. C. Rose, D. G. Steele, B. W. Olive, and K. J. Reinhard
 1990 *The Archeology and Bioarcheology of the Gulf Coastal Plain: Volume 1*. Research Series 38. Arkansas Archeological Survey, Fayetteville.
- Strecker, J. K.
 1931 The Distribution of Naiades or Pearly Fresh-Water Mussels of Texas. Special Bulletin No. 2. Baylor University Museum, Waco.
- Stringer, C. B., and P. Andrews
 1988 Genetic and Fossil Evidence for the Origin of Modern Humans. *Science* 239:1263-1268.
- Suhm, D. A.
 1957 Excavations at the Smith Rockshelter, Travis County, Texas. *Texas Journal of Science* 9:26-58.
- Sulentich, J. M., L. R. Williams, and G. N. Cameron
 1991 *Geomys breviceps*. *Mammalian Species* 383:1-4.
- Swanton, J. R.
 1942 *Source Material on the History and Ethnology of the Caddo Indians*. Bureau of American Ethnology Bulletin 132. Smithsonian Institution, Washington, D.C.
- 1946 *The Indians of the Southeastern United States*. Bureau of American Ethnology Bulletin 137. Smithsonian Institution, Washington, D.C.
- Taylor, D. C.
 1969 The Wilsall Excavations: An Exercise in Frustration. *Proceedings of the Montana Academy of Sciences* 29:147-150.
- Taylor, D. W.
 1960 Late Cenozoic Molluscan Faunas From the High Plains. *United States Geological Survey Professional Paper* 337:1-94.

- Taylor, R. E., L. A. Payen, C. A. Prior, P. J. Slota Jr., R. Gillespie, J. A. Gowlett, R. M. C. Hedges, A. J. T. Jull, T. H. Zabel, D. J. Donahue, and R. Berger
1985 Major Revisions in the Pleistocene Age Assignments for North American Human Skeletons by C-14 Accelerator Mass Spectrometry: None Older than 11,000 C-14 Years B.P. *American Antiquity* 50:136-140.
- Tennant, A.
1985 *A Field Guide to Texas Snakes*. Texas Monthly Press, Austin.
- Theler, J. L.
1991 Aboriginal Utilization of Freshwater Mussels at the Aztalan Site, Wisconsin. *Beamers, Bobwhites, and Blue-Points: Tributes to the Career of Paul W. Parmalee*, edited by James R. Purdue, Walter E. Klippel, and Bonnie Styles. Scientific Papers 23. Illinois State Museum, Springfield.
- Thoms, A. V.
1987 *Prehistoric Land Use in the Northern Rocky Mountains: A Perspective from the Middle Kootenai River Valley*. Center for Northwest Anthropology Project Report 4. Washington State University, Pullman.
1989 *The Northern Roots of Hunter-Gatherer Intensification: Camas and the Pacific Northwest*. Unpublished Ph.D. dissertation. Department of Anthropology, Washington State University, Pullman.
- Tieszen, L. L.
1994 Stable Isotopes in the Great Plains: Vegetation Analyses and Diet Determinations. In *Skeletal Biology in the Great Plains: A Multidisciplinary View*, edited by D. W. Owsley and R. L. Jantz, pp. 261-282. Smithsonian Press, Washington, D.C.
- Tieszen, L. L., and S. Archer
1990 Isotopic Assessment of Vegetation Change in Grassland and Woodland Systems. In *Plant Biology of Basin and Range*, edited by C. B. Osmond, pp. 293-321. Ecological Studies 80. Springer-Verlag, New York.
- Tieszen, L. L., and T. Fagre
1993a Carbon Isotopic Variability in Modern and Archaeological Maize. *Journal of Archaeological Science* 20:25-40.
1993b Effect of Diet Quality and Composition on the Isotopic Composition of Respiratory CO₂, Bone Collagen, Bioapatite, and Soft Tissues. In *Prehistoric Human Bone-Archaeology at the Molecular Level*, edited by J. B. Lambert and G. Grupe, pp. 261-282. Springer-Verlag, Berlin.
- Timbrook, J., J. R. Johnson, and D. D. Earle
1993 Vegetation Burning by the Chumash. In *Before the Wilderness: Environmental Management by Native Californians*, edited by T. C. Blackburn and K. Anderson, pp. 117-150. Ballena Press, Ramona, California.
- Toomey, R. S., III
1989 Hall's Cave. In *Geomorphology, Quaternary Stratigraphy, and Paleocology of Central Texas*, edited by S. A. Hall, and T. C. Gustavson, pp. 1-20. Guidebook of the South-Central Friends of the Pleistocene 7th Annual Meeting, Austin.
1991 Hall's Cave: A 13,000 Year Record of Climatic Change from Central Texas. *Institute of Tertiary Quaternary Studies Symposia Abstracts*. University of Kansas, Lawrence.
1993 *Late Pleistocene and Holocene Faunal and Environmental Changes at Hall's Cave, Kerr County, Texas*. Unpublished Ph.D. dissertation, Department of Geological Sciences, The University of Texas at Austin.
- Toomey, R. S., III, M. D. Blum, and S. Valastro, Jr.
1993 Late Quaternary Climates and Environments of the Edwards Plateau, Texas. *Global and Planetary Change* 7:299-320.
- Tous, G. (translator)
1930 The Espinosa-Olivares-Aguirre Expedition of 1709: Espinosa's Diary. *Preliminary Studies of the Texas Catholic Historical Society* I(3):1-14.
- Trotter, M., and G. C. Gleser
1952 Estimation of Stature from Long Bones of American Whites and Negroes. *American Association of Physical Anthropology* 10:463-514.
- Turgeon, D. D., A. E. Bogan, E. V. Coan, W. K. Emerson, W. G. Lyons, W. L. Pratt, C. F. E. Roper, A. Scheltema, F. G. Thompson, and J. D. Williams
1988 *Common and Scientific Names of Aquatic Invertebrates from the United States and Canada: Mollusks*. Special Publication 16. American Fisheries Society, Bethesda, Maryland.
- Turner, C. G.
1985a Dental Evidence for the Peopling of the Americas. *National Geographic Society Research Reports* 19:573-596.
1985b The Dental Search for Native American Origins. In *Out of Asia*, edited by R. Kirk and E. Szathmary, pp. 31-78. Journal of Pacific History, Inc., Australian National University, Canberra.
- Twiss, P. C., E. Suess, and R. M. Smith
1969 Morphological Classification of Grass Phytoliths. *Soil Science Society of America* 33:109-115.
- Tyler, C.
1946 The Influence of Different Levels of Dietary Calcium upon Egg-shell Thickness, with a Study of the Relationship between Egg-shell Thickness and Porosity. *Journal of Agricultural Science* 36:111-116.
1969 Avian Eggshells: Their Structure and Characteristics. In *International Review of General and Experimental Zo-*

- ology, Vol. 4, edited by W. J. L. Felts, and R. J. Harrison, pp. 82-130. Academic Press, New York.
- van der Merwe, N. J.
1982 Carbon Isotopes, Photosynthesis, and Archaeology. *American Scientist* 70:209-215.
- van der Merwe, N. J., and J. C. Vogel
1978 ^{13}C Content of Human Collagen as a Measure of Prehistoric Diet in Woodland North America. *Nature* 276:815-816.
- Van Morkhoven, F. P. C. M.
1962 *Post-Palaeozoic Ostracoda*. Vol. I. Elsevier Publishing Co., Amsterdam.
- Vehik, S. C.
1977 Bone Fragments and Bone Grease Manufacturing: A Review of Their Archaeological Use and Potential. *Plains Anthropologist* 22:169-182.
- Vestal, P. A.
1952 *Ethnobotany of the Ramah Navaho*. Papers of the Peabody Museum of American Archaeology and Ethnology XL(4). Harvard University, Cambridge.
- Voellinger, L. R., and R. L. Gearhart, II
1987 *Mitigation of Impacts at Three Burned Rock Midden Sites in the Block House Creek Development, Williamson County, Texas*. Espey, Huston & Associates, Austin, Texas.
- Vogel, J. C., and N. J. van der Merwe
1977 Isotopic Evidence for Early Maize Cultivation in New York State. *American Antiquity* 42 (2):238-242.
- von Fischer, J. C., and L. L. Tieszen
1995 Carbon Isotope Characterization of Soil Organic Matter from Four Tropical Forests in Luquillo, Puerto Rico. *Biotropica*, in press.
- Ward, R., E. G. Zimmerman, and T. L. King
1990 Multivariate Analysis of Terrestrial Reptilian Distribution in Texas: An Alternate View. *The Southwestern Naturalist* 35:441-445.
- Warren, R. E.
1991 Freshwater Mussels as Paleoenvironmental Indicators: A Quantitative Approach to Assemblage Analysis. In *Beamers, Bobwhites, and Blue-Points: Tributes to the Career of Paul W. Parmalee*, edited by James R. Purdue, Walter E. Klippel, and Bonnie Styles, pp. 23-66. Scientific Papers 23. Illinois State Museum, Springfield.
- Waters, M. R.
1986 Sulphur Springs Woman: An Early Human Skeleton from South-Eastern Arizona. *American Antiquity* 51:361-365.
- Watt, F. H.
1978 Radiocarbon Chronology of Sites in the Central Brazos Valley. *Bulletin of the Texas Archeological Society* 49:111-138.
- Wedel, W.
1957 The Central North American Grassland: Man-Made or Natural? In *Studies in Human Ecology*, pp. 39-69. Social Science Monographs III. Pan American Union, Washington, D.C.
- Wedin, D. A., L. L. Tieszen, B. Dewey, and J. Pastor
1995 Carbon Isotope Dynamics During Grass Decomposition and Soil Organic Matter Formation. *Ecology*, in press.
- Weir, F. A.
1979 Greenhaw: An Archaic Site in Central Texas. *Bulletin of the Texas Archeological Society* 50:5-67.
- Weir, G. H., and J. P. Dering
1986 The Lomas of Paloma: Human-Environmental Relations in a Central Peruvian Fog Oasis: Archaeobotany and Palynology. In *Andean Archaeology, Papers in Memory Clifford Evans*, edited by R. Matos, S. A. Turpin, and H. H. Eling, Jr.. Monograph XXVII. Institute of Archaeology, University of California, Los Angeles.
- Wesolowsky, A. B., T. R. Hester, and D. R. Brown
1976 Archeological Investigations at the Jetta Court Site (41TV151) Travis County, Texas. *Bulletin of the Texas Archeological Society* 47:25-87.
- Westgate, J. A., F. J. Chen, and L. D. Delorme
1987 Lucustrine Ostracodes in Late Pleistocene Sunnybrook Diamicton of Southern Ontario, Canada. *Canadian Journal of Earth Sciences* 24:2330-2335.
- White, E. M., and L. A. Hannus
1983 Chemical Weathering of Bone in Archaeological Soils. *American Antiquity* 48:316-322.
- Whyte, T. R.
1988 *An Experimental Study of Small Animal Remains in Archaeological Pit Features*. Ph.D. dissertation, Department of Anthropology, The University of Tennessee, Knoxville.
- 1991 Small-Animal Remains in Archaeological Pit Features. In *Beamers, Bobwhites, and Blue-Points: Tributes to the Career of Paul W. Parmalee*, edited by J. R. Purdue, W. E. Klippel, and B. W. Styles, pp. 163-176. Scientific Papers, Vol. 23. Illinois State Museum, Springfield.
- Wilding, L. P., and L. R. Drees
1968 Biogenic Opal in Soils as an Index of Vegetation History in the Prairie Peninsula. In *The Quaternary of Illinois*, edited by R. E. Bergstrom, pp. 99-103. College of Agriculture Special Publication 14. University of Illinois.
- 1971 Biogenic Opal in Ohio Soils. *Soil Science Society of America* 35:1004-1010.
- 1973 Scanning Electron Microscopy of Opaline Forms Isolated from Forest Soils in Ohio. *Soil Science Society of America* 37:647-650.

- Wilding, L. P., N. E. Smech, and L. R. Drees
1977 Silica in Soils: Quartz, Cristobalite, Tridymite, and Opal. In *Minerals in Soil Environments*, edited by J. B. Dixon and S. B. Weed, pp. 471-552. Soil Science Society of America, Madison, Wisconsin.
- Wilkins, K. T.
1992 Mammalian Paleofaunas of Central Texas from the Late Wisconsinan Glacial Period to the Latest Holocene. *The Texas Journal of Science* 44:263-281.
- Willner, G. R., G. A. Feldhamer, E. E. Zucker, and J. A. Chapman
1980 *Ondatra zibethicus*. *Mammalian Species* 141:1-8.
- Wilson, S. E., B. F. Cumming, and J. P. Smol
1994 Diatom-Salinity Relationships in 111 Lakes from the Interior Plateau of British Columbia, Canada: The Development of Diatom-Based Models for Paleosalinity Reconstructions. *Journal of Paleolimnology* 12:197-221.
- Winemiller, K. O. and B. M. Winsborough
1990 Occurrence of Epizoic Communities on the Parasitic Copepod *Lernaea carassii* (Lernaeidae). *Southwestern Naturalist* 35:205-210.
- Wing, E. S., and I. R. Quitmyer
1985 Screen Size for Optimal Data Recovery: A Case Study. In *Aboriginal Subsistence and Settlement Archaeology of the Kings Bay Locality, Volume 2: Zooarchaeology*, edited by W. H. Adams, pp. 49-58. Reports of Investigations No. 2. Department of Anthropology, University of Florida, Gainesville.
- Winkler, A. J.
n.d. Small Vertebrates from the Wilson-Leonard Archaeological Site (41WM235), Williamson County, Texas. Manuscript on file, Texas Archeological Research Laboratory, The University of Texas at Austin.
1990 Small Mammals from a Holocene Sequence in Central Texas and Their Paleoenvironmental Implications. *The Southwestern Naturalist* 35(2):199-205.
- Winsborough, B. M.
1988 Paleoeological Analysis of Holocene Algal Mat Diatomites Associated with Prehistoric Wells on the Texas High Plains. Paper presented at the 22nd Annual Meeting of the South-Central Section of the Geological Society of America, Lawrence, Kansas.
1995 Diatom-based Paleoeological Analysis of the Late Quaternary Valley Fill. In *Stratigraphy and Paleoenvironments of Late Quaternary Valley Fills on the Southern High Plains*, edited by V. T. Holiday, pp. 67-82. Memoir of the Geological Society of America 186. Geological Society of America, Boulder.
- Witter, D. C.
1969 Appendix B. Identification of Faunal Remains. In *Archaeological Investigations at the John Ischy Site: A Burnt Rock Midden in Williamson County, Texas*, by W. M. Sorrow, pp. 61-62. Papers of the Texas Archeological Salvage Project 18. Texas Archeological Salvage Project, The University of Texas at Austin.
- Witty, J. R., and E. G. Knox
1964 Glass Opal in Some Chesnut and Forest Soils of North Central Oregon. *Soil Science Society of America* 28:685-688.
- Wolfe, J. L.
1982 *Oryzomys palustris*. *Mammalian Species* 176:1-5.
- Wood, W. R., and D. L. Johnson
1978 A Survey of Disturbance Processes in Archaeological Site Formation. In *Advances in Archaeological Method and Theory*, edited by M. B. Schiffer, pp. 315-381. Academic Press, New York.
- Wright, T., and E. Lundelius, Jr.
1963 *Post-Pleistocene Raccoons from Central Texas and Their Zoogeographic Significance*. The Pearce-Sellards Series No. 2. Texas Memorial Museum, The University of Texas at Austin.
- Yanovsky, E.
1936 *Food Plants of the North American Indians*. Miscellaneous Publications 27. United States Department of Agriculture, Washington D.C.
- Yates, B. C.
1982 Vertebrate Faunal Remains. In *Archaeological Investigations at the San Gabriel Reservoir Districts, Central Texas*, Vol. 2, by T. R. Hays, pp. 15-57 through 15-227. Institute of Applied Sciences, North Texas State University, Denton.
1985 Appendix 4: Faunal Analysis. In *Waco Lake, McLennan County, Texas: An Inventory and Assessment of Cultural Resources*, by D. J. Prikrýl, and J. M. Jackson, pp. 313-323. Reports of Investigations No. 39. Prewitt and Associates, Inc., Austin.
- Yesner, D. R., C. E. Holmes, and K. J. Crossen
1992 Archaeology and Paleoecology of the Broken Mammoth Site, Central Tanana Valley, Interior Alaska, USA. *Current Research in the Pleistocene* 9:53-57.
- Young, D. E.
1986 *The Paleoindian Skeletal Material from Horn Shelter, Number 2 in Central Texas: An Analysis and Perspective*. Unpublished Master's thesis, Department of Anthropology, Texas A&M University, College Station.
1988 The Double Burial at Horn Shelter: An Osteological Analysis. *Central Texas Archaeologist* 11:11-115.
- Zierhut, N. W.
1967 Bone Breaking Activities of the Calling Lake Cree. *Alberta Anthropologist* 1:33-36.

APPENDIX 8: FAUNAL REMAINS RECOVERED FROM SELECT FEATURES

by

Joy Becker

TABLE A8-1
Number and Percentage of Faunal Remains by Class for Select Features

	No.	% of Total	No. Burned	% Burned of Total	% of Class Burned
Feature 155 (N=42; 5.5 liters)					
Mammalia	7	17	5	12	71
Reptilia	1	2	1	2	100
Rodentia	8	19	3	7	38
Vertebrata	26	62	10	24	38
Feature 157 (N=63; 0.85 liters)					
Lagomorph	1	2	0	0	0
Mammalia	2	3	1	2	50
Rodentia	7	11	7	11	100
Testudines	1	2	0	0	0
Vertebrata	52	83	34	54	65
Feature 166 (N=24; 1.25 liters)					
Mammalia	9	38	9	38	100
Vertebrata	15	63	11	46	73
Feature 168 (N=356; unknown volume)					
Amphibian	2	1	0	0	0
Mammalia	51	14	21	6	41
Osteichthyes	3	1	1	0	33
Reptilia	1	0	0	0	0
Rodentia	27	8	12	3	44
Serpentes	1	0	1	0	100
Testudines	3	1	2	1	67
Vertebrata	268	75	89	25	33
Feature 169 (N=722; 61.4 liters)					
Aves	1	0	0	0	0
Lagomorph	2	0	0	0	0
Mammalia	58	8	38	5	66
Osteichthyes	12	2	3	0	25
Reptilia	2	0	1	0	50
Rodentia	48	7	16	2	33
Serpentes	2	0	2	0	100
Testudines	4	1	3	0	75
Vertebrata	593	82	172	24	29
Feature 175 (N=50; ca. 1 liter)					
Mammalia	11	22	5	10	45
Serpentes	1	2	1	2	100
Rodentia	5	10	1	2	20
Testudines	4	8	2	4	50
Vertebrata	29	58	12	24	41
Feature 181 (N=13,377; unknown volume)					
Amphibia	9	0	0	0	0
Lagomorph	29	0	8	0	28
Mammalia	350	3	123	1	35
Osteichthyes	176	1	43	0	24
Reptilia	4	0	0	0	0
Rodentia	665	5	169	1	25
Serpentes	31	0	2	0	6
Testudines	274	2	51	0	19
Vertebrata	11,839	88	2,656	20	22
Feature 187 (N=84; unknown volume)					
Lagomorph	2	2	0	0	0
Mammalia	6	7	3	4	50
Osteichthyes	1	1	0	0	0
Rodentia	3	4	0	0	0
Testudines	3	4	0	0	0
Vertebrata	69	82	34	40	49

Table A8-1, *continued*

	No.	% of Total	No. Burned	% Burned of Total	% of Class Burned
Feature 206 (N=791; ca. 9.75 liters)					
Lagomorpha	2	0	0	0	0
Mammalia	63	8	21	3	33
Osteichthyes	9	1	2	0	22
Serpentes	5	1	2	0	40
Rodentia	31	4	5	1	16
Testudines	1	0	1	0	100
Vertebrata	680	86	121	15	18
Feature 213 (N=115; 4.5 liters)					
Amphibian	1	1	0	0	0
Mammalia	3	3	0	0	0
Rodentia	12	10	2	2	17
Vertebrata	99	86	17	15	17
Feature 224 (N=155; ca. 3.75 liters)					
Amphibian	1	1	0	0	0
Mammalia	18	12	8	5	44
Osteichthyes	5	3	0	0	0
Rodentia	1	1	0	0	0
Testudines	16	10	3	2	19
Vertebrata	114	74	36	23	32
Feature 231 (N=101; 2.7 liters)					
Mammalia	13	13	3	3	23
Osteichthyes	2	2	2	2	100
Reptilia	1	1	0	0	0
Rodentia	17	17	6	6	35
Testudines	1	1	0	0	0
Vertebrata	67	66	32	32	48
Feature 235 (N=27; 0.5 liters)					
Mammalia	1	4	1	4	100
Rodentia	1	4	1	4	100
Vertebrata	25	93	7	26	28
Feature 236 (N=542; 27 liters)					
Amphibian	1	0	0	0	0
Lagomorpha	5	1	5	1	100
Mammalia	61	11	40	7	66
Osteichthyes	3	1	1	0	33
Reptilia	2	0	2	0	100
Rodentia	46	8	24	4	52
Testudines	1	0	1	0	100
Vertebrata	423	78	232	43	55
Feature 245 (N=76; 2.7 liters)					
Mammalia	2	3	1	1	50
Osteichthyes	5	7	2	3	40
Rodentia	3	4	2	3	67
Testudines	1	1	0	0	0
Vertebrata	65	86	28	37	43
Feature 252 (N=33; ca. 1 liter)					
Aves	11	22	5	10	45
Mammalia	1	2	1	2	100
Rodentia	5	10	1	2	20
Testudines	4	8	2	4	50
Vertebrata	29	58	12	24	41
Feature 255 (N=47; ca. 8.75 liters)					
Lagomorph	1	2	0	0	0
Mammalia	13	28	7	15	54
Rodentia	3	6	1	2	33
Testudines	1	2	0	0	0
Vertebrata	29	62	13	28	45

Table A8-1, *continued*

	No.	% of Total	No. Burned	% Burned of Total	% of Class Burned
Feature 257 (N=65; ca. 12.4 liters)					
Mammalia	11	17	8	12	73
Osteichthyes	1	2	0	0	0
Reptilia	1	2	0	0	0
Rodentia	10	15	3	5	30
Vertebrata	42	65	19	29	45
Feature 260 (N=14; 6.5 liters)					
Lagomorph	1	7	1	7	100
Mammalia	3	21	2	14	67
Osteichthyes	1	7	0	0	0
Vertebrata	9	64	3	21	33
Feature 262 (N=455; 98 liters)					
Lagomorpha	1	0	1	0	100
Mammalia	119	26	17	4	14
Osteichthyes	1	0	0	0	0
Serpentes	1	0	0	0	0
Rodentia	15	3	9	2	60
Testudines	4	1	3	1	75
Vertebrata	313	69	68	15	22
Burned Rock Midden 1 (N=54; 3 liters)					
Amphibia	1	2	0	0	0
Mammalia	5	9	2	4	40
Osteichthyes	2	4	1	2	50
Reptilia	1	2	0	0	0
Rodentia	6	11	4	7	67
Vertebrata	39	72	7	13	18

APPENDIX 9: FAUNAL TAXA DESCRIPTIONS

by Barry W. Baker

TAXA DESCRIPTIONS

Presented below are descriptions of the 1/4-inch and 1/8-inch screened taxa recovered from the Wilson-Leonard site. All material, regardless of whether or not it has been linked to stratum and time period is described. In limited cases, provenience information is also included. Information about the fauna that is important in interpreting human behavior or environmental conditions at the site is discussed. Fish classification follows Romer and Parsons (1977:566-567). Classification of the turtles follows Dixon (1987). Classification of birds follows Texas Ornithological Society (1984). Mammal classification follows Jones and Jones (1992).

PHYLUM CHORDATA (CHORDATES)

Subphylum Vertebrata (Vertebrates)

Class Indeterminate

Material: The sample consists of fragments from throughout the site that could not be identified to class or animal size category. Seventy percent (n=15,309) of the total 1/4-inch assemblage (N=21,867) from the site could not be identified more precisely. Of the 38,618 specimens from the 1/8-inch sample, 26,251 (68%) could not be identified more precisely.

Remarks: Most of the material probably represents mammals, though fragmentation made positive identification to the level of class impossible. Despite the fact that much of the sample could not be identified to class, many specimens could be assigned to general animal size categories. For example, many small, degraded long bone shaft fragments from the site could represent rabbits or birds. Indeterminate vertebrate fragments were grouped by size category where possible as follows: (1) small vertebrate (smaller than a cottontail rabbit); (2) small/medium-sized vertebrate; (3) medium-sized vertebrate (jackrabbit to fox-sized); (4) medium/large-sized vertebrate; and (5) large vertebrate (larger than fox-sized). Counts for these categories from each assemblage is presented in Appendix 10.

Class Elasmobranchiomorpha (Sharks and Allies)

SUBCLASS CHONDRICHTHYES (CARTILAGINOUS FISHES)

Infraclass Elasmobranchii (Sharks, Skates, and Rays)

Order Selachii (Common Sharks)

Material: One shark tooth fragment (1/4-inch sample; Lot 37CC1D); 1 shark tooth fragment (1/8-inch sample; Lot 1938). **Remarks:** An additional shark tooth was recovered from the human Paleoindian burial, but was not included in this analysis. The shark teeth are likely Cretaceous fossils from local deposits. For a review of Cretaceous shark teeth from Texas see Welton and Farish (1993).

Class Osteichthyes (Bony fishes)

SUBCLASS ACTINOPTERYGII (RAY-FINNED FISHES)

Superorder Teleostei

Order Indeterminate

Material: The 1/4-inch sample includes 1 small-fish vertebra (Lot 37II1D; centrum width=5 mm), 1 small-fish atlas (Lot 37FF2D; centrum width=2.5 mm), 1 vertebra (Lot 10E; centrum width=7 mm), 1 tooth (Lot 37QQ2D). The 1/8-inch sample includes 26 additional small vertebrae and otoliths of small freshwater fish.

Remarks: The atlas from Lot 37FF2D is burned black. The tooth from Lot 37QQ2D resembles a freshwater drum, though no positive identification could be made. The frequency of fish was undoubtedly biased by the use of 1/4-inch screens.

Order Siluriformes (Catfish)

Family Ictaluridae (Freshwater Catfish)

Ictalurus sp.

Material: One pectoral spine fragment (1/8-inch sample; Lot 1199).

Remarks: This specimen is burned.

Class Amphibia (Amphibians)

ORDER ANURA (FROGS AND TOADS)

Family Indeterminate

Material: Fourteen post-cranial elements from the 1/8-inch sample.

Remarks: These specimens could not be identified to family. Amphibians were absent from the 1/4-inch sample.

Class Reptilia (Reptiles)

ORDER TESTUDINATA (TURTLES AND TORTOISES)

Family Indeterminate

Material: The 1/4-inch sample included 98 indeterminate shell fragments, 2 carapace fragments (Lots 10E, 37GD), 1 nuchal (Lot 15F), 3 neurals (Lots 24RL, 36F, 37Z1D), 5 pleurals (Lots 9J, 10B, 10E, 36E, 36G), 15 peripherals (Lots 3B, 5C, 10E [n=2], 14N2, 20H, 20R, 17CC1, 22O, 22P, 27DD2C, 30MM2A, 36D, 36G, 37DD2D), 5 plastron fragments (Lots 10F, 18N, 20H [n=2], 22K). An additional 313 specimens were recovered from the 1/8-inch sample.

Remarks: Distinct scute lines on turtle shells make these bones easily distinguishable from other vertebrates, even when very small fragments are recovered. The majority of specimens categorized here as unidentified are probably hard-shell turtles, exclusive of the soft-shelled turtle family Trionychidae. Soft-shelled turtles can be recognized easily by their characteristically dimpled shells. These remains were recovered throughout the site.

CF. TESTUDINATA

Material: One possible shell fragment (Lot 29Y1B).

Remarks: The apparent scute line on this bone is not distinct enough to definitely classify it as turtle. The bone was recovered from Unit II.

Family Kinosternidae (Mud and Musk Turtles)
Genus Indeterminate

Material: The 1/4-inch sample includes 1 shell fragment (Lot 10D), 9 peripherals (Lots 0 [right], 8B [left], 11C [left], 12F, 24S1, 36B [left], 36E, 37DD1B [left], 50OC [left]), 1 pygal (Lot 50IB), 1 plastron fragment (Lot 0), 1 right hypoplastron (Lot 36F). Seven additional specimens were recovered from the 1/8-inch sample.

Remarks: The family Kinosternidae is represented by two genera in Texas: *Kinosternon* (mud turtle), and *Sternotherus* (musk turtle) (Dixon 1987:79-81). Of the five Kinosternidae species occurring in Texas, *K. flavescens* (yellow mud turtle), *K. subrubrum* (Mississippi mud turtle), *S. carinatus* (razorback musk turtle), and *S. odoratus* (stinkpot) are within the range of Williamson County today (Dixon 1987:176-181). The peripherals of the Kinosternidae are very distinct, with marginal scute outlines located distally, in contrast to their medial location in other taxa (Sobolik and Steele 1996:22). The pygal is also distinct in that it has "a slight notch on the posterior end, and the marginal scute outline...is V-shaped or U-shaped" (Sobolik and Steele 1996:22). The hypoplastron is small and rectangular with pointed axial notches (Sobolik and Steele 1996:23).

Mud and musk turtles are highly aquatic and are only occasionally found out of water. They are usually found crawling along water bottoms, and sun themselves in shallow waters or on floating vegetation (Behler and King 1985:438). Their presence at the site suggests nearby aquatic environments.

Kinosternon sp. (Mud Turtles)

Material: Two peripherals, lateral aspects (Lots 733, 887).

Remarks: Mud turtles in Texas include *K. flavescens* (yellow mud turtle), *K. hirtipes* (Mexican mud turtle), and *K. subrubrum* (eastern mud turtle).

Sternotherus sp. (Musk turtles)

Material: One left hypoplastron (Lot 27KK2D), 1 right hypoplastron (Lot 17J2).

Remarks: Both of these musk turtle bones are burned. The hypoplastron from Lot 17J2 is from Unit IIIb/IIIc, the mixed Middle Archaic through Late Prehistoric deposits at the site. The bone from Lot 27KK2D is from Early Paleoindian deposits in Unit Ig/Isi.

Two species of musk turtles occur in Texas today. These

include *S. carinatus* (razorback musk turtle) and *S. odoratus* (stinkpot) (Dixon 1987:80-81). *S. odoratus* is more common throughout the central Texas area (Dixon 1987:181). Dixon (1987:180) reports no record of *S. carinatus* from Williamson County, though it is found in Bell and Milam counties, immediately to the north and east. Musk turtles prefer soft-bottomed waters that are shallow and slow moving (Behler and King 1985:443, 445; Ernst and Barbour 1972:34), though it has been taken from gravel-bottomed streams as well (Ernst and Barbour 1972:34).

The hyoplastron of *Sternotherus* is characterized by an unmovable suture junction with the epi/entoplastron, distinguishing it from *Kinosternon* which possesses a flexible hinge at this junction (Sobolik and Steele 1996:24).

Family Emydidae (Water and box turtles)
Genus Indeterminate

Material: The 1/4-inch sample includes 1 shell fragment (Lot 37JA), 2 neurals (Lots 8C, 12F), 1 right peripheral (Lot 27BB2D). Fifteen additional specimens were recovered from the 1/8-inch sample.

Remarks: Emydidae is the largest living family of turtles and is represented in Texas by *Terrapene* (box turtles), *Graptemys* (map turtles), *Chrysemys sensu stricto* (painted turtles), *Pseudemys* (cooters and redbelly turtles), *Trachemys* (sliders), and *Deirochelys* (chicken turtles) (Dixon 1987:81-86; Ernst and Barbour 1972:69; Seidel and Smith 1986).

Peripherals of the family Emydidae are characterized by medially positioned scute lines forming a wide margin between the scute line and the lateral edge of the peripheral (Sobolik and Steele 1996:5). Neurals are typically six or eight sided, are longer than they are wide, and are relatively thick (Sobolik and Steele 1996:5-6). A series of sharp, distinct ridges can often be seen on larger Emydidae turtles, referred to by Sobolik and Steele (1996:6, 90) as "a washboard effect." The presence of water turtles provides further evidence of riverine exploitation by prehistoric humans at the site.

Chrysemys sensu lato (Painted Turtles/cooters/sliders)

Material: One suprapygal (Lot 518); 1 peripheral (Lot 572).

Remarks: Both of these specimens were recovered from the 1/8-inch sample. The use of the taxon *Chrysemys sensu lato* here follows the inclusion of painted turtles, cooters, and sliders within a single genus. These species are often difficult to distinguish.

Terrapene sp. (Box turtles)

Material: One pygal (Lot 7A) from the 1/4-inch sample.

Remarks: Box turtles are terrestrial reptiles. In Texas, this genus includes two species, *Terrapene ornata* (ornate or western box turtle) and *T. carolina* (eastern or common box turtle). Dixon (1987:191) reported no records of *T. carolina*

from Williamson County, though the area is within its range. Two subspecies of the ornate box turtle are known from Texas. *T. ornata ornata* occupies the central Texas region, while *T. ornata luteola* is restricted to west Texas (Dixon 1987:192). The eastern box turtle is found predominantly in open woodlands, but is also known from pastures, marshy meadows, scrub forests and brushy grasslands (Ernst and Barbour 1989:195). Habitats of the western box turtle include open prairies, grazed pasture lands, open woodlands, and waterways in arid, sandy-soiled terrain (Behler and King 1985:470). The pygal of *Terrapene* is distinct in remaining unnotched and showing straight scute lines on the bone (Sobolik and Steele 1996:10).

Family Trionychidae (Softshell Turtles)

Trionyx sp. (Softshell Turtle)

Material: The 1/4-inch sample yielded 1 shell fragment (Lot 22F), 2 pygal fragments (Lot 10F). The 1/8-inch sample produced 1 shell fragment (Lot 744).

Remarks: Two extant species of *Trionyx* occur in Texas. These are *T. muticus* (smooth softshell turtle) and *T. spiniferus* (spiny softshell turtle) (Dixon 1987:86-87). *T. spiniferus* is the most common of these species in Texas and occurs throughout the central Texas area (Dixon 1987:195-196). Dixon (1987:195) reported no records of *T. muticus* from Williamson County, though it is known from adjacent Milam County. Habitats of the softshell turtle include marshy creeks, ponds, lakes, and rivers. *T. muticus* rarely leaves the water, though *T. spiniferus* often basks along banks and on logs exposed in the water (Ernst and Barbour 1972:258, 262). Soft-shelled turtles are easily distinguished from other families by their characteristically dimpled shells. Consequently, they are often over represented in taxonomic frequency lists.

ORDER SQUAMATA (LIZARDS AND SNAKES)

Suborder Indeterminate

Material: Nine vertebrae fragments.

Remarks: These specimens were recovered from the 1/8-inch sample. Due to fragmentation and their small size they could not be distinguished between lizards and snakes.

Suborder Serpentes (Snakes)

Family Indeterminate

Material: Sixteen dorsal vertebrae (Lots 5B, 9M, 10E, 11H, 11F, 36D, 36G [n=2], 37CC, 37HH1B, 37II1B, 37OO1B [n=2], 37HH2A, 37HH2C, 37OO2B) from the 1/4-inch sample. An additional 127 specimens were recovered from the 1/8-inch sample.

Remarks: It is interesting that 8 of the 16 vertebrae from the 1/4-inch sample are from different levels of the same excavation unit (Square 37), suggesting they may represent a single snake. All of the burned 1/4-inch recovered snake from the

site is from Square 37. Generic and species identification of snakes from skeletal elements is difficult, and commonly requires detailed morphometric assessment (Auffenberg 1969; Holman 1981; Meylan 1982). Identification to the family level (Colubridae vs. Viperidae) has proven simpler based on hemal keel morphology.

Family Colubridae (Colubrid snakes)

Genus Indeterminate

Material: Nine dorsal vertebrae (Lots 8K [n=4], 10B, 11D, 19G, 36F, 37PP2A). Ninety-four additional specimens from the 1/8-inch sample.

Remarks: The four vertebrae from Lot 8K are articulated and represent a single snake. The vertebra from Lot 37PP2A is burned. The Colubrid family is the largest of the snake families. In the United States, these species constitute the non-poisonous snakes (Behler and King 1985:589). Numerous colubrid species currently inhabit Williamson County (Dixon 1987; Tennant 1985). The Colubridae show a reduced or absent hemal keel, while those of the Viperidae (poisonous snakes) are typically long and pronounced. The high degree of sample fragmentation hindered more specific identifications.

Family Viperidae (Pit Viper Snakes)

Genus Indeterminate

Material: Fourteen vertebrae from the 1/8-inch sample.

Remarks: These vertebrae of poisonous snakes were not identified to genus.

Class Aves (Birds)

ORDER INDETERMINATE

Indeterminate Bird

Material: One long bone shaft fragment (Lot 16AA2) from the 1/4-inch sample.

Remarks: Most bird bones are relatively thin and fragile and are more susceptible to postdepositional taphonomic forces. Consequently, they are commonly either totally destroyed, or the bones are reduced to fragments small enough to pass through 1/4-inch screens. Differential preservation of burned to unburned bird bone is suggested by the fact that three of the four 1/4-inch bird bones are burned.

Small Bird Indeterminate

Material: 1 distal phalanx (Lot686) from the 1/8-inch sample.

Medium-sized Bird Indeterminate

Material: One right tarsometatarsus, shaft fragment (Lot 486); 1 left carpometacarpus, distal end (Lot 1689); 1 distal phalanx, proximal end (Lot 1856).

Remarks: All of these specimens were recovered from the 1/8-inch sample.

cf. Medium-sized Bird

Material: One long bone shaft (Lot 19I) from the 1/4-inch sample.

Remarks: This bone shaft is unburned and compares favorably with bird.

Large Bird Indeterminate

Material: One distal phalanx (Lot 29X1A) from the 1/4-inch sample. Specimens from the 1/8-inch sample include 1 distal phalanx (Lot 455) and 1 vertebra (Lot 1991).

Remarks: The toe bone from the 1/4-inch sample is complete and is from a bird about the size of a hawk.

ORDER GALLIFORMES (TURKEYS, GROUSE, QUAILS, AND CHACHALACAS)

Family Phasianidae

Subfamily Odontophorinae (New World Quail)

Genus Indeterminate

Material: One right humerus, distal end (Lot 37NN2C) from the 1/4-inch sample.

Remarks: This bone is burned. The specimen represents either the northern bobwhite (*Colinus virginianus*) or the scaled quail (*Callipepla squamata*), both of which are known from the area (Texas Ornithological Society 1984:37-38). The scaled quail is common in arid scrublands and grasslands, while the northern bobwhite can be found in open woods, brushy areas, and field edges (Farrand 1988:188, 193).

Class Mammalia (Mammals)

ORDER INDETERMINATE

Material: Unidentifiable fragments were recovered from throughout the site.

Remarks: As with the unidentified vertebrate sample, mammals that could not be identified to order were grouped by animal size category. Counts are presented in Appendix 10. Definitions are as follows: (1) small mammal (up to cottontail rabbit sized); (2) small/medium-sized mammal; (3) medium-sized mammal (raccoon, canid-sized); (4) medium/large-sized mammal; (5) large mammal (deer, pronghorn-sized); (6) large/very large mammal; (7) very large mammal (bison-sized); (8) mammal, size indeterminate.

ORDER INSECTIVORA (INSECTIVORES)

Family Soricidae

Blarina sp. (Shrew)

Material: One mandible, left ramus with M1 (Lot 2029) from the 1/8-inch sample.

Remarks: Several shrew genera occur in Texas including *Blarina*, *Cryptotis* and *Notiosorex*. Species of *Blarina* include *B. carolinensis* (southern short-tailed shrew) and *B. hylophaga* (Elliot's short-tailed shrew) (Davis and Schmidly 1994:18-25). *Blarina* is the largest of the North American shrews.

ORDER LAGOMORPHA (RABBITS, HARES, AND PIKAS)

Family Leporidae (Rabbits and Hares)

Genus Indeterminate

Material: Seventy isolated teeth and skeletal elements from throughout the 1/4-inch sample. An additional 291 specimens were recovered from the 1/8-inch sample.

Remarks: Leporids are represented by two genera in Texas. These include *Sylvilagus* and *Lepus* (Schmidly 1983:104-115). The species that occur today in or near the area of the site in Williamson County include *S. floridanus* (eastern cottontail), *S. audubonii* (desert cottontail), *S. aquaticus* (swamp rabbit), and *L. californicus* (black-tailed jack rabbit) (Davis 1978:236-244). The morphological similarities and the size overlap between *S. aquaticus* and *L. californicus*, along with common degradation of the bone elements, made identification to either of these species difficult. Hulbert (1979, 1984) used discriminant analysis on maxillae, mandibles, and lower third premolars to distinguish between these four taxa. Following Findley et al. (1975), Dalquest et al. (1989) used enamel crenelation patterns of the third lower premolar to separate *S. floridanus* from *S. audubonii*. Neusius and Flint (1985) further showed that metrical separation of cottontail species can be difficult.

cf. Leporidae (Rabbit)

Material: One alveolar ridge fragment (Lot 17T2), 1 left humerus shaft fragment (Lot 11H), 1 left acetabulum fragment (Lot 11P). An additional 11 specimens were recovered from the 1/8-inch sample.

Remarks: These specimens appear to be rabbit, but could not be positively assigned.

cf. *Lepus californicus* (Jackrabbit)

Material: Five specimens from the 1/8-inch sample.

Remarks: These specimens compare favorably with jackrabbit, but could not be positively assigned.

Lepus californicus (Black-tail Jackrabbit)

Material: Nineteen skeletal elements from throughout the 1/4-inch sample (Lot 0, 7I, 10F [n=2] 10K, 10P, 18G, 19I, 22L, 22S, 27CC2D, 29GG1D, 29S2A, 33T1B, 37DB, 37ND, 37S2A, 50NC, 51Z2C). An additional 116 specimens were recovered from the 1/8-inch sample.

Remarks: While there may be overlap in size between *Sylvilagus floridanus* and *Lepus californicus*, the very large size of these specimens suggests they are jackrabbit. *L. californicus* is the only species of *Lepus* occurring in the area today. The jackrabbit is common in dry scrubland habitats and occasionally inhabits coniferous forests (Davis 1978:237).

Sylvilagus sp. (Rabbits)

Material: Forty-one skeletal elements from the 1/4-inch sample. An additional 347 specimens were recovered from the 1/8-inch sample.

Remarks: *Sylvilagus* is represented by three species in the Williamson County area. These include *S. floridanus* (eastern cottontail), *S. audubonii* (desert cottontail), and *S. aquaticus* (swamp rabbit) (Davis 1978:236-244; Schmidly 1983:104-111). Specimens were identified as *Sylvilagus* based on their small size. This suggests they probably represent *S. audubonii* or *S. floridanus*, and not the larger *S. aquaticus*. *Sylvilagus* typically inhabits open country, pastures, and grassy areas, but can also be found in swamps and woodlands. Swamp rabbits are associated primarily with creek and riverine floodplains (Schmidly 1983:109).

cf. *Sylvilagus* (Rabbits)

Material: The following were recovered from the 1/4-inch sample: 1 humerus, distal end (Lot 37NN2B), 1 right ulna, semi-lunar notch (Lot 30U1C), 1 left calcaneus, proximal aspect (Lot 36G). An additional five specimens were recorded from the 1/8-inch sample.

Remarks: These specimens compare favorably with *Sylvilagus*, but could not be positively assigned.

ORDER RODENTIA (RODENTS)

Family Indeterminate

Material: One incisor (Lot 396).

Remarks: The specimen was recovered from the 1/8-inch sample.

Small Rodent Indeterminate (Mouse-sized)

Material: Two incisors (Lot 36I, 37NN1A) from the 1/4-inch sample. Fifteen additional specimens were recovered from the 1/8-inch sample.

Remarks: These mouse-sized elements could not be assigned to family.

Small/Medium-sized Rodent Indeterminate (Mouse/rat-sized)

Material: One right femur shaft (Lot 8P) from the 1/4-inch sample. Four additional elements were recovered from the 1/8-inch sample.

Remarks: These mouse to rat-sized rodent elements could not be assigned to family.

Medium-sized Rodent Indeterminate (Rat/gopher-sized)

Material: Two humeri, distal ends (Lot 25BB2C, 25S1) from the 1/4-inch sample. Forty-two additional specimens from the 1/8-inch sample.

Remarks: These medium-sized rodents could not be assigned to family.

Family Sciuridae (Squirrels)

Sciurus sp. (Tree squirrel)

Material: One right humerus, distal end (Lot 36D), 1 right calcaneus (Lot 11E) from the 1/4-inch sample. A right humerus, proximal end (Lot 1978) was recovered from the 1/8-inch sample.

Remarks: The humerus from the 1/8-inch sample was recovered from Feature 245 and is burned. Squirrels in Williamson County and surrounding areas can be divided into ground squirrels (*Spermophilus mexicanus* [Mexican ground squirrel], *S. variegatus* [rock squirrel], *S. tridecemlineatus* [thirteen-lined ground squirrel], and *Cynomys ludovicianus* [black-tailed prairie dog]), flying squirrels (*Glaucomys volans*), and tree squirrels (*Sciurus carolinensis* [eastern gray squirrel] and *S. niger* [fox squirrel]). *S. niger* is the most common tree squirrel in the area (Davis 1978:146-164; Schmidly 1983:119-134). The gray squirrel is more common east of Williamson County. Tree squirrels can be found in a variety of settings, and are common in bottomland areas and upland creeks lined with hardwoods (Schmidly 1983:124, 128).

cf. *Spermophilus mexicanus* (Mexican Ground Squirrel)

Material: One left humerus, distal end (Lot 1991) from the 1/8-inch sample.

Remarks: This specimen from Late Paleoindian deposits has a distal breadth of 7.5 mm and is much larger than *Sciurus*. Other ground squirrels that occur in Texas include *S. variegatus* (rock squirrel), *S. tridecemlineatus* (thirteen-lined ground squirrel) and *S. spilosoma* (spotted ground squirrel). Only *S. mexicanus* occurs in the area today (Davis and Schmidly 1994:104-112). The species typically inhabits grassy or brushy areas.

Family Geomyidae (Pocket Gophers)

cf. *Geomys* sp. (Pocket Gopher)

Material: One maxilla fragment (Lot 649), 1 lower right incisor (Lot 1991).

Remarks: Both of these specimens are from the 1/8-inch sample. While they compare favorably with pocket gopher, they could not be positively assigned.

Geomys sp. (Pocket gopher)

Material: One maxillary incisor (Lot 30FF2B), 1 right tibia, distal end (Lot 16F) from the 1/4-inch sample. An additional 101 specimens were identified from the 1/8-inch sample.

Remarks: Three gopher genera occur in Texas today: *Thomomys*, *Geomys*, and *Cratogeomys* (formerly *Pappogeomys*) (Davis 1978:164-171; Jones and Jones 1992:60-62). Without upper incisors, morphological distinction of gopher genera from skeletal material is difficult. Typically, upper incisors of *Thomomys* are un-grooved, *Cratogeomys* shows a single groove, and *Geomys* has two grooves (Akersten 1973; Schmidly 1977:76).

The classification of Texas geomyids in general is complex (Jones and Jones 1992:60-62). Many of the currently recognized species of *Geomys*, for example, are identified principally from chromosomal and biochemical differences. Of the three Texas geomyid genera, only *Geomys* is currently known from the eastern Edwards Plateau. Species include *G. bursarius* (plains pocket gopher), *G. attwateri* (Attwater's pocket gopher), and *G. texensis* (Llano pocket gopher) (Davis 1978:164-171; Schmidly 1983:134-143; Smolen et al. 1993). *Geomys* is presently absent from the Leander area (Winkler 1990:201). Modern land use patterns and soil erosion account for much of its disappearance (Semken 1961). While no specimens exhibited the incisor morphology typical of *Thomomys*, species were assigned to *Geomys* based on modern biogeography. Balinsky (see Chapter 35), however, identified several specimens of *Thomomys* from the fine-screen sample, suggesting a range extension for this species in central Texas.

Despite the fact that gophers spend much of their time underground, there is sufficient evidence to indicate they were exploited by North American Indians, and therefore should not be ignored as a possible food source for the inhabitants of the site (Shaffer 1991:132-136, 1992, and references therein). Winkler (1990:201) notes that gophers prefer sandy soil and generally avoid clayey soils. Since most of the sediments at the site are clayey deposits, she inferred that gophers were not living at the site, but were transported there. Winkler (1990:201) stated that gophers were one of the most common animals from the site.

Family Cricetidae (New World Rats and Mice)
Indeterminate Cricetid

Material: One left calcaneus, distal aspect (Lot 518), 1 right tibia, distal end (Lot 527).

Remarks: Both specimens were recovered from the 1/8-inch sample.

Small Indeterminate Cricetid (Mouse-sized)

Material: Five specimens from the 1/8-inch sample that could not be assigned to genus.

Medium-sized Indeterminate Cricetid (Rat-sized)

Material: Seven specimens from the 1/8-inch sample that could not be assigned to genus.

cf. *Sigmodon hispidus* (Hispid Cotton Rat)

Material: One left complete femur shaft (Lot 18n) from the 1/4-inch sample; 1 right calcaneus (Lot 512) from the 1/8-inch sample.

Remarks: These specimens compare favorably with a hispid cotton rat, though a positive identification could not be made. The femur is from a subadult and shows unfused proximal and distal epiphyses.

Sigmodon hispidus (Hispid Cotton Rat)

Material: The 1/4-inch sample yielded 1 right mandible with I-M3 (Lot 18G), 1 left mandible with M2 (Lot 36I), 1 left mandible with I-M2 (Lot 18N), and 1 right mandible with I and M3 (Lot 37EC). An additional 22 specimens were recovered from the 1/8-inch sample.

Remarks: Of the three extant Texas *Sigmodon* species (Jones and Jones 1992:66), only *S. hispidus* (hispid cotton rat) occurs in the region today. Extant records of *S. fulviventer* (tawny-bellied cotton rat) were recently reported from the Davis Mountains of the Trans-Pecos region of Texas (Stangl 1992). The yellow-nosed cotton rat (*S. ochrognathus*) is also restricted in Texas to the western portions of the state (Davis 1978:216). Cotton rats prefer well-drained areas and dense ground vegetation, though they can be found in many vegetative regions (Schmidly 1983:191).

Neotoma sp. (Woodrats)

Material: One mandibular M1 or M2 (Lot 37RR1A) from the 1/4-inch sample. Forty-six specimens were recovered from the 1/8-inch sample.

Remarks: Only the eastern woodrat (*Neotoma floridana*) presently occurs in Williamson County, although the specimen may also represent the southern plains woodrat (*N. micropus*) or the white-throated wood rat (*N. albigula*) (Jones and Jones 1992:66; Schmidly 1983:197-205). *N. floridana* prefers riparian habitats, while *N. micropus* and *N. albigula* are more common in semiarid or xeric environments (Davis 1978:221; Schmidly 1983:197, 202). Winkler (1990:202-203) reviewed methods of distinguishing these three species based on dental metrics and styloid development.

cf. *Microtus* sp. (Vole)

Material: One right mandible, horizontal ramus fragment with M1 (Lot 626) from the 1/8-inch sample.

Remarks: The specimen compares favorably with vole and

could represent *M. pinetorum* (woodland vole) or *M. ochrogaster* (prairie vole). These species are difficult to distinguish (Winkler 1990:203).

Ondatra zibethicus (Muskrat)

Material: One right, upper M3 (Lot 2796).

Remarks: The specimen is from Early Paleoindian deposits in the 1/8-inch sample. Muskrats require aquatic environments and are relatively rare in the central Texas fossil record.

ORDER CARNIVORA (CARNIVORES)

Family Indeterminate

Material: Twenty-five dental and skeletal elements from throughout the site (Lots 12C, 12G, 17BB1 [n=4], 17KK2/LL1, 21I, 22K, 24Y1C, 25BB1A, 25KK2D [n=2], 27V2B, 27W2B, 29BB1C, 29JJ2B [n=2], 35V2D, 36D, 37CB, 37EB, 37JJ1C, 37NN1B, 37O1D). Seventeen additional specimens were recovered from the 1/8-inch sample.

Remarks: These carnivore teeth and bones are not diagnostic enough for family assignment.

Family Procyonidae (Raccoons and Relatives)

cf. *Procyon lotor* (Raccoon)

Material: One left upper premolar (Lot 532) from the 1/8-inch sample.

Remarks: The specimen is a fragment and could not be positively assigned to species.

Procyon lotor (Raccoon)

Material: The 1/4-inch sample included 1 left maxillary Pm4 (Lot 36E), and 1 left mandibular M1 (Lot 15C). A lower, left M1 (Lot 532) was recovered from the 1/8-inch sample.

Remarks: Raccoons occur in many vegetational regions in Texas but prefer hard timbered habitats near larger streams. Raccoons are primarily nocturnal and do not hibernate during the winter (Schmidly 1983:255-256).

Family Mustelidae (Weasels, Minks, and Skunks)

Subfamily Mephitinae (Skunks)

Genus Indeterminate

Material: One left mandibular horizontal ramus with Pm3-M1 (Lot 8B) from the 1/4-inch sample.

Remarks: Skunk species whose range currently includes Williamson county include the eastern spotted skunk (*Spilogale putorius*), the striped skunk (*Mephitis mephitis*), and the hog-nosed skunk (*Conepatus mesoleucus*). These skunks occur in a variety of habitats including open fields, forest edges, and woodlands (Schmidly 1983:269-283).

Family Canidae (Dogs and Relatives)

cf. Canidae

Material: One right maxilla fragment (Lot 37EA).

Remarks: This bone compares favorably with the family Canidae, though a positive identification could not be made. It is not burned, and remains unlinked to its associated stratum.

cf. *Canis* (Coyote/wolf/dog)

Material: The 1/4-inch sample yielded 1 right accessory carpal (Lot 16AA1) and 1 left astragalus (Lot 25Z1D). A left parietal (Lot 480) and left petrosal fragment (Lot 480) were recovered from the 1/8-inch sample.

Remarks: These specimens compare favorably with *Canis*, though a positive identification could not be made.

Canis sp. (Coyote/wolf/dog)

Material: Twenty-three dental and skeletal elements from throughout the 1/4-inch sample. Four additional specimens were recovered from the 1/8-inch sample.

Remarks: Species of *Canis* whose ranges have included the project area include *C. latrans* (coyote), *C. lupus* (gray wolf), *C. rufus* (red wolf), and *C. familiaris* (domestic dog) (Davis 1978:123-129; Jones and Jones 1992:68; Schmidly 1983:234-245). Characteristics distinguishing these various taxa are reviewed extensively by Nowak (1979) and Olsen (1985).

Family Felidae (Cats)

Felis rufus (Bobcat)

Material: One left ulna, proximal end (Lot 11O) from the 1/4-inch sample.

Remarks: Bobcats prefer heavily wooded uplands and bottomland forests (Schmidly 1983:288).

ORDER ARTIODACTYLA (ARTIODACTYLS)

Family Indeterminate

Material: One hundred six dental and skeletal elements from throughout 1/4-inch sample. Fifty additional specimens were recovered from the 1/8-inch sample.

Remarks: These are primarily small tooth fragments that exhibit artiodactyl morphology but could not be identified to family. Holocene artiodactyls native to the area include deer, pronghorn, and bison.

Medium-sized Artiodactyl Indeterminate (Deer-sized)

Material: Six teeth fragments (Lots 32T1D, 37DD, 37ED [n=2]) and 1 left petrosal fragment (Lot 14B) from the 1/4-inch sample.

Remarks: These probably represent deer or pronghorn, but could not be positively identified.

Large Artiodactyl Indeterminate (Bison-sized)

Material: One tooth fragment (Lot 21F), 2 rib fragments (Lots 15F, 20I), 1 long bone shaft fragment (Lot 15F).

Remarks: These bovid-sized fragments probably represent bison, but could not be positively identified.

Family Cervidae (Deer and relatives)
cf. *Odocoileus* (Deer)

Material: The 1/4-inch sample yielded 1 right tibia, distal end (Lot 10D), 1 left fused third and fourth metacarpal, proximal anterior aspect (Lot 19F), 1 fused third and fourth metacarpal, distal end (Lot 36G), 1 left intermediate carpal, anterior aspect (Lot 6D). Three additional specimens were recovered from the 1/8-inch sample

Remarks: These bones compare favorably with deer, but could not be positively identified.

Odocoileus sp. (Deer)

Material: One hundred forty-eight dental and skeletal elements from the 1/4-inch sample; 153 specimens from the 1/8-inch sample.

Remarks: Specimens were distinguished from pronghorn based on Ford's (1990) and Lawrence's (1951) criteria used in conjunction with comparative material. Morphological overlap between *Odocoileus virginianus* (white-tailed deer) and *O. hemionus* (mule deer) makes species identification difficult with post-cranial material. Currently, only *O. virginianus* inhabits the area (Jones and Jones 1992:72). White-tailed deer are common in all vegetational zones in Texas, with bottomland hardwoods being the preferred habitat. Mule deer are typically found in more arid settings. Deer remains are common throughout archeological sites in the region.

cf. *Antilocapra americana/Odocoileus* Indeterminate (Pronghorn/deer)

Material: One left pubis fragment (Lot 9L) and 1 tibia shaft fragment (Lot 9D) from the 1/4-inch sample.

Remarks: These specimens appear to be either pronghorn or deer.

Antilocapra americana/Odocoileus indeterminate (Pronghorn/deer)

Material: Two hundred ninety-nine dental and skeletal elements from the 1/4-inch sample; 72 specimens from the 1/8-inch sample.

Remarks: These specimens are too fragmented or undiagnostic to identify to genus.

Family Antilocapridae

Antilocapra americana (Pronghorn)

Material: The 1/4-inch sample yielded 1 left maxillary M3 (Lot 36E), 1 right maxillary M1 or M2 (Lot 16F) and 1 left fused third and fourth metatarsal, proximal end (Lot 8C). Five specimens were recovered from the 1/8-inch sample including 1 right upper M1 (Lot 390), 1 left upper fourth premolar (Lot 399), 2 tooth enamel fragments (Lot 462), and 1 upper right molar (Lot 507).

Remarks: Currently, pronghorn are restricted to the panhandle and western portion of the state (Davis 1978:248). Formerly, pronghorn occupied the western portion of Texas as far east as Robertson and McLennan counties (Jones and Jones 1992:72). Pronghorn are found in open grassland habitats.

Family Bovidae (Bovids)
cf. *Bison* (Bison)

Material: The 1/4-inch sample included 1 vertebra neural area (Lot 34NN2B), 1 rib shaft fragment (Lot 35NN1/2D) and 1 right metacarpal, proximal lateral end (Lot 32002/PP1A).

Remarks: These specimens compare favorably with bison, but could not be positively assigned.

Bison sp. (Bison)

Material: The 1/4-inch sample included 32 dental and skeletal elements, predominately from Paleoindian components of the site. Two additional specimens were identified in the 1/8-inch sample.

Remarks: Material was assigned to bison based on morphological features and the temporal setting of the site. In addition to comparative specimens, identification guides were also consulted (Balkwill and Cumbaa 1992; Brown and Gustafson 1989; Olsen 1960). Species identification of fossil bison is problematic. *Bison latifrons* existed from the Illinoian in North America to possibly the late Pleistocene (McDonald 1981:75). *Bison antiquus* occurred from the late Pleistocene to roughly 5,000–4,000 B.P. The appearance of modern bison (*Bison bison*) in the mid-Holocene marks the termination of *B. antiquus* (McDonald 1981:84). The formerly recognized *B. occidentalis* is now subsumed as a subspecies of *B. antiquus* (*B. antiquus occidentalis*) (McDonald 1981:82).

McDonald (1981:54–55) showed that limb bones and dentition (both gross morphology and metrics) were not useful in distinguishing between these species. Only identifications based on horn core morphology were considered reliable by McDonald. No horn cores were recovered from the Wilson-Leonard site, thus all specimens were assigned to *Bison* sp. Based on McDonald's temporal assessment, it seems likely that the Paleoindian associated bison from the Wilson-Leonard site may represent *Bison antiquus*.

ORDER PERISSODACTYLA (ODD-TOED UNGULATES)

Family Equidae (Horses)

Equus sp. (Horse)

Material: One complete left central tarsal (Lot 37MM1/2C) from the 1/4-inch sample.

Remarks: This central tarsal represents a small to medium-sized horse. Following the measurements of Driesch (1976:91), it has a greatest breadth of 4.56 cm. Late Pleistocene and early Holocene records of horse in Texas are reviewed by Toomey (1993:407-413). Kurtén and Anderson (1980:291) noted that terminal dates for native *Equus* in North America may extend to ca. 8,000 B.P. However, Meltzer and Mead (1983) reported the youngest reliable age for North American *Equus* as 10,370±350 B.P. from Jaguar Cave in Idaho. More recently, Toomey (1993:409) reported *Equus* from Hall's Cave on the western Edwards Plateau of central Texas dating to 8,700-9,200 B.P. He stated, however, that

"Until more radiocarbon dating...can be done, it would be premature to claim late horse survival in central Texas" (Toomey 1993:409). Though presently uncorrelated to stratum, a more detailed chronological assessment of the Wilson-Leonard specimen could provide insight on this issue.

Toomey (1993:409) noted that all late Pleistocene Equids are considered cursorial grazers and that their presence suggests the presence of open grasslands. A taxonomic assessment of the Wilson-Leonard specimen remains difficult. Small late Pleistocene Equids may be of either the *E. francisci* group (stilt-legged), or the *E. alaskae* group (stout-legged) (Toomey 1993:408; Winans 1985, 1989). The *E. alaskae* group of Winans (1985, 1989) includes what is most commonly identified as *E. conversidens*. Distinction between the small stilt- and stout-legged forms is based on cranial and metapodial metrics. Since the Wilson-Leonard sample produced only a single Equid tarsal, a more detailed assignment beyond *Equus* sp. could not be made.

REFERENCES CITED

- Akersten, W. A.
1973 Upper Incisor Grooves in the Geomyinae. *Journal of Mammalogy* 54(2):349-355.
- Auffenberg, W.
1969 The Fossil Snakes of Florida. *Tulane Studies in Zoology* 10:131-216.
- Balkwill, D. M., and S. L. Cumbaa
1992 *A Guide to the Identification of Postcranial Bones of Bos taurus and Bison bison*. Syllogeus No. 71. Canadian Museum of Nature, Ottawa.
- Behler, J. L., and F. W. King
1985 *The Audubon Society Field Guide to North American Reptiles and Amphibians*. Alfred A. Knopf, New York.
- Brown, C. L., and C. E. Gustafson
1989 *A Key to Postcranial Skeletal Remains of Cattle/Bison, Elk, and Horse*. Reports of Investigations No. 57. Laboratory of Anthropology, Washington State University, Pullman.
- Dalquest, W. W., F. B. Stangl, Jr., and J. V. Grimes
1989 The Third Lower Premolar of the Cottontail, Genus *Sylvilagus*, and its Value in the Discrimination of Three Species. *The American Midland Naturalist* 121:293-301.
- Davis, W. B.
1978 *The Mammals of Texas*. Bulletin 41. Texas Parks and Wildlife Department, Austin.
- Davis W. B., and D. J. Schmidly
1994 *The Mammals of Texas*. Texas Parks and Wildlife Press, Austin.
- Dixon, J. R.
1987 *Amphibians and Reptiles of Texas: With Keys, Taxonomic Synopses, Bibliography, and Distribution Maps*. Texas A&M University Press, College Station.
- Driesch, A. von den
1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*. Bulletin No. 1. Peabody Museum of Archaeology and Ethnology, Harvard University. Cambridge, Massachusetts.
- Ernst, C. H., and R. W. Barbour
1972 *Turtles of the United States*. The University Press of Kentucky Press, Lexington.
- 1989 *Turtles of the World*. Smithsonian Institution, Washington, D. C.
- Fenneman, N. M.
1938 *Physiography of Eastern United States*. McGraw-Hill, New York.
- Findley, J. S., A. H. Harris, D. E. Wilson, and C. Jones
1975 *Mammals of New Mexico*. University of New Mexico Press, Albuquerque.
- Ford, P. J.
1990 Antelope, Deer, Bighorn Sheep and Mountain Goats: A Guide to the Carpals. *Journal of Ethnobiology* 10(2):169-181.
- Holman, J. A.
1981 A Review of North American Tertiary Snakes. *Publications of Michigan State University Museum Paleontology Series* 1(6):203-260.

- Hulbert, R. C., Jr.
 1979 *Linear Discriminant Analysis and Variability of Pleistocene and Holocene Leporidae of Texas*. Unpublished Master's thesis, Department of Geological Sciences, The University of Texas at Austin.
- 1984 Latest Pleistocene and Holocene Leporid Faunas from Texas: Their Composition, Distribution and Climatic Implications. *Southwestern Naturalist* 29:197-210.
- Jones, J. K., Jr., and C. Jones
 1992 Revised Checklist of Recent Land Mammals of Texas, With Annotations. *The Texas Journal of Science* 44:53-74.
- Kurtén, B., and E. Anderson
 1980 *Pleistocene Mammals of North America*. Columbia University Press, New York.
- Lawrence, B.
 1951 *Post-Cranial Skeletal Characters of Deer, Pronghorn, and Sheep-Goat With Notes on Bos and Bison*. Papers of the Peabody Museum of American Archaeology and Ethnology Vol. 35, No. 2, Part 2. Harvard University, Cambridge.
- McDonald, J.
 1981 *North American Bison: Their Classification and Evolution*. University of California Press, Los Angeles.
- Meylan, P. A.
 1982 The Squamate Reptiles of the Inglis Ia Fauna (Irvingtonian: Citrus County, Florida). *Bulletin of the Florida State Museum, Biological Sciences* 27(3):1-85.
- Neusius, S. W., and P. R. Flint
 1985 Cottontail Species Identification: Zooarchaeological Use of Mandibular Measurements. *Journal of Ethnobiology* 5:51-58.
- Nowak, R. M.
 1979 *North American Quaternary Canis*. Monograph of the Museum of Natural History, University of Kansas No. 6. University of Kansas, Lawrence.
- Olsen, S. J.
 1960 *Post-Cranial Skeletal Characters of Bison and Bos*. Papers of the Peabody Museum of American Archaeology and Ethnology, Vol. 35, No. 4. Harvard University, Cambridge.
- 1985 *Origins of the Domestic Dog: The Fossil Record*. University of Arizona Press, Tucson.
- Romer, A. S., and T. S. Parsons
 1977 *The Vertebrate Body*, 5th edition. W. B. Saunders Company, Philadelphia.
- Schmidly, D. J.
 1977 *The Mammals of Trans-Pecos Texas*. Texas A&M University Press, College Station.
- 1983 *Texas Mammals East of the Balcones Fault Zone*. Texas A&M University Press, College Station.
- Seidel, M. E., and H. M. Smith
 1986 *Chrysemys, Pseudemys, Trachemys* (Testudines: Emydidae): Did Agassiz Have it Right? *Herpetologica* 42:242-248.
- Semken, H. A., Jr.
 1961 Fossil Vertebrates from Longhorn Cavern, Burnet County, Texas. *The Texas Journal of Science* 13:290-310.
- Shaffer, B. S.
 1991 *The Economic Importance of Vertebrate Faunal Remains from the NAN Ruin (LA15049), a Classic Mimbres Pueblo Site, Grant County, New Mexico*. Unpublished Master's thesis, Department of Anthropology, Texas A&M University, College Station.
- 1992 Interpretation of Gopher Remains from Southwestern Archaeological Assemblages. *American Antiquity* 57:683-691.
- Smolen, M. J., R. M. Pitts, and J. W. Bickham
 1993 A New Subspecies of Pocket Gopher (*Geomys*) from Texas (Mammalia: Rodentia: Geomyidae). *Proceedings of the Biological Society of Washington* 106:5-23.
- Sobolik, K. D., and D. G. Steele
 1996 *A Turtle Atlas to Facilitate Archaeological Identifications*. Mammoth Site of Hot Springs, South Dakota, Inc. Fenske Companies, Rapid City, South Dakota.
- Stangl, F. B., Jr.
 1992 First Record of *Sigmodon fulviventer* in Texas: Natural History and Cytogenetic Observations. *The Southwestern Naturalist* 37:213-214.
- Tennant, A.
 1985 *A Field Guide to Texas Snakes*. Texas Monthly Press, Austin, Texas.
- Texas Ornithological Society
 1984 *Checklist of the Birds of Texas*, 2nd edition. Hart Graphics, Austin, Texas.
- Toomey, R. S., III
 1993 Late Pleistocene and Holocene Faunal and Environmental Changes at Hall's Cave, Kerr County, Texas. Unpublished Ph.D. dissertation, Department of Geological Sciences, The University of Texas at Austin.
- Welton, B. J., and R. F. Farish
 1993 *The Collector's Guide to Fossil Sharks and Rays from the Cretaceous of Texas*. Before Time Publishers, U.S.A.
- Winans, M. C.
 1985 Revision of North American Fossil Species of the Genus *Equus* (Mammalia: Perissodactyla: Equidae). Unpublished Ph.D. dissertation, Department of Geological Sciences, The University of Texas at Austin.
- 1989 A Quantitative Study of North American Fossil Species of the Genus *Equus*. In *The Evolution of Perissodactyls*, edited by Donald R. Prothero, and Robert M. Schoch, pp. 262-297. Clarendon Press, New York.
- Winkler, A. J.
 1990 Small Mammals from a Holocene Sequence in Central Texas and Their Paleoenvironmental Implications. *The Southwestern Naturalist* 35:199-205.

APPENDIX 10: PROVENIENCE OF FAUNAL REMAINS

by Barry W. Baker

TABLE A10-1

Provenience of Faunal Remains Recovered from 1/4-inch Screens, TxDOT Excavations

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
Surface	0	0	Unknown	Unassigned		<i>Antilocapra/Odocoileus</i>	Distal fibula	1
Surface	0	0	Unknown	Unassigned		<i>Antilocapra/Odocoileus</i>	Femur	1
Surface	0	0	Unknown	Unassigned		<i>Antilocapra/Odocoileus</i>	Metapodial	1
Surface	0	0	Unknown	Unassigned		<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
Surface	0	0	Unknown	Unassigned		<i>Antilocapra/Odocoileus</i>	Tibia	1
Surface	0	0	Unknown	Unassigned		Artiodactyla	Calcaneus	1
Surface	0	0	Unknown	Unassigned		Artiodactyla	Tooth, perm./decid. ind.	3
Surface	0	0	Unknown	Unassigned		Kinosternidae	Peripheral	1
Surface	0	0	Unknown	Unassigned		Kinosternidae	Plastron fragment ind.	1
Surface	0	0	Unknown	Unassigned		Leporidae	Humerus	1
Surface	0	0	Unknown	Unassigned		<i>Lepus californicus</i>	Astragalus	1
Surface	0	0	Unknown	Unassigned		Mammalia (Large)	Indeterminate	1
Surface	0	0	Unknown	Unassigned		Mammalia (Large)	Long bone	3
Surface	0	0	Unknown	Unassigned		Mammalia (Large)	Pelvis	2
Surface	0	0	Unknown	Unassigned		Mammalia (Large)	Vertebra	1
Surface	0	0	Unknown	Unassigned		Mammalia (Medium/large)	Caudal vertebra	1
Surface	0	0	Unknown	Unassigned		Mammalia (Medium/large)	Indeterminate	9
Surface	0	0	Unknown	Unassigned		Mammalia (Medium/large)	Long bone	3
Surface	0	0	Unknown	Unassigned		<i>Odocoileus</i> sp.	Calcaneus	1
Surface	0	0	Unknown	Unassigned		<i>Odocoileus</i> sp.	Metapodial	1
Surface	0	0	Unknown	Unassigned		<i>Odocoileus</i> sp.	Permanent tooth	2
Surface	0	0	Unknown	Unassigned		<i>Odocoileus</i> sp.	Prox. phalange of paradigit	1
Surface	0	0	Unknown	Unassigned		Vertebrata	Indeterminate	132
W0/N8	8	50HB	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	1
W0/N8	8	50HD	IIIc	M. Archaic	BRM2	Mammalia (Large)	Indeterminate	2
W0/N8	8	50HD	IIIc	M. Archaic	BRM2	Mammalia (Medium/large)	Indeterminate	1
W0/N8	9	50ID	IIIc	M. Archaic	BRM2	Small/Medium Vertebrata	Long bone	1
W0/N8	10	50JA	IIIc	M. Archaic	BRM2	Mammalia (Medium/large)	Indeterminate	2
W0/N8	10	50JA	IIIc	M. Archaic	BRM2	Testudinata	Shell fragment	1
W0/N8	10	50JA	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	9
W0/N8	10	50JB	IIIc	M. Archaic	BRM2	Mammalia (Medium/large)	Indeterminate	4
W0/N8	10	50JB	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	17
W0/N8	10	50JC	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	2
W0/N8	10	50JD	IIIc	M. Archaic	BRM2	<i>Odocoileus</i> sp.	Prox. phalange of paradigit	1
W0/N8	10	50JD	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	5
W0/N8	11	50KA	IIIc	Early/M. Archaic	BRM2	Mammalia (Medium/large)	Indeterminate	1
W0/N8	11	50KA	IIIc	Early/M. Archaic	BRM2	Vertebrata	Indeterminate	4
W0/N8	11	50KB	IIIc	Early/M. Archaic	BRM2	Testudinata	Shell fragment	3
W0/N8	11	50KB	IIIc	Early/M. Archaic	BRM2	Vertebrata	Indeterminate	12
W0/N8	11	50KC	IIIc	Early/M. Archaic	BRM2	Mammalia (Large)	Long bone	1
W0/N8	11	50KC	IIIc	Early/M. Archaic	BRM2	Vertebrata	Indeterminate	2
W0/N8	11	50KD	IIIc	Early/M. Archaic	BRM2	Mammalia (Medium/large)	Indeterminate	1
W0/N8	11	50KD	IIIc	Early/M. Archaic	BRM2	<i>Odocoileus</i> sp.	Proximal phalange	1
W0/N8	11	50KD	IIIc	Early/M. Archaic	BRM2	Vertebrata	Indeterminate	7
W0/N8	12	50LA	III	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
W0/N8	12	50LA	III	E. Archaic		Mammalia (Medium/large)	Long bone	3
W0/N8	12	50LA	III	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
W0/N8	12	50LA	III	E. Archaic		Small/Medium Vertebrata	Long bone	1
W0/N8	12	50LA	III	E. Archaic		Vertebrata	Indeterminate	3
W0/N8	12	50LB	III	E. Archaic		Kinosternidae	Pygal	1
W0/N8	12	50LB	III	E. Archaic		Vertebrata	Indeterminate	3
W0/N8	12	50LC	III	E. Archaic		Mammalia (Large)	Indeterminate	1
W0/N8	12	50LC	III	E. Archaic		Vertebrata	Indeterminate	5
W0/N8	13	50MA	III	E. Archaic		Vertebrata	Indeterminate	1
W0/N8	13	50MC	III	E. Archaic		Mammalia (Large)	Indeterminate	2
W0/N8	13	50MC	III	E. Archaic		Mammalia (Medium/large)	Indeterminate	6
W0/N8	13	50MD	III	E. Archaic		Medium/Large Vertebrata	Long bone	1
W0/N8	14	50NA	III	E. Archaic		Mammalia (Large)	Long bone	1
W0/N8	14	50NA	III	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
W0/N8	14	50NA	III	E. Archaic		Vertebrata	Indeterminate	5
W0/N8	14	50NB	III	E. Archaic		Vertebrata	Indeterminate	1
W0/N8	14	50NC	III	E. Archaic		<i>Lepus californicus</i>	Calcaneus	1
W0/N8	14	50NC	III	E. Archaic		Vertebrata	Indeterminate	3
W0/N8	14	50NC	III	E. Archaic		Vertebrata	Long bone	1
W0/N8	15	50OC	III	E. Archaic		Kinosternidae	Peripheral	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
W0/N8	15	50OD	III	E. Archaic		Vertebrata	Indeterminate	2
W0/N8	16	50PA	III	E. Archaic		Vertebrata	Indeterminate	1
W0/N8	17	50QB	III	E. Archaic		Vertebrata	Indeterminate	1
W0/N8	18	50RBD	III	E. Archaic		Mammalia (Medium/large)	Long bone	1
W0/N8	18	50RBD	III	E. Archaic		Vertebrata	Indeterminate	1
W0/N8	20	50TD	III	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
W0/N8	24	50XA	II	L. Paleo.		Vertebrata	Indeterminate	1
W0/N8	24	50XB	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
W0/N8	24	50XC	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
W0/N8	24	50XC	II	L. Paleo.		Vertebrata	Indeterminate	1
W0/N8	24	50XD	II	L. Paleo.		Vertebrata	Indeterminate	5
W0/N8	25	50YA	I/II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
W0/N8	25	50YA	I/II	L. Paleo.		Vertebrata	Indeterminate	1
W0/N8	25	50YB	I/II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
W0/N8	25	50YC	I/II	L. Paleo.		Vertebrata	Indeterminate	2
W0/N8	26	50ZA	I	Paleoindian		Mammalia (Large)	Tooth, perm./decid. ind.	1
W0/N8	26	50ZB	I	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
W0/N8	26	50ZD	I	Paleoindian		Vertebrata	Indeterminate	3
W0/N8	26B	50Z2C	I	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
W0/N8	26B	50Z2C	I	Paleoindian		Small/Medium Vertebrata	Indeterminate	1
W0/N8	26B	50Z2C	I	Paleoindian		Small/Medium Vertebrata	Long bone	2
W0/N8	26B	50Z2C	I	Paleoindian		Vertebrata	Indeterminate	3
W0/N8	27A	50AA1A	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	27A	50AA1A	I	Paleoindian		Vertebrata	Long bone	1
W0/N8	27A	50AA1B	I	Paleoindian		Mammalia (Medium)	Ulna	1
W0/N8	27A	50AA1D	I	Paleoindian		Vertebrata	Indeterminate	10
W0/N8	27B	50AA2A	I	Paleoindian		Mammalia (Medium)	Axis	1
W0/N8	27B	50AA2A	I	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
W0/N8	27B	50AA2A	I	Paleoindian		Vertebrata	Indeterminate	33
W0/N8	27B	50AA2B	I	Paleoindian		Mammalia (Medium)	Cranium	1
W0/N8	27B	50AA2B	I	Paleoindian		Vertebrata	Indeterminate	5
W0/N8	27B	50AA2C	I	Paleoindian		Vertebrata	Indeterminate	6
W0/N8	27B	50AA2D	I	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
W0/N8	27B	50AA2D	I	Paleoindian		Vertebrata	Indeterminate	10
W0/N8	28	50BB	I	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
W0/N8	28A	50BB1A	I	Paleoindian		Vertebrata	Indeterminate	7
W0/N8	28A	50BB1B	I	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
W0/N8	28A	50BB1B	I	Paleoindian		Vertebrata	Indeterminate	6
W0/N8	28A	50BB1C	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	28A	50BB1D	I	Paleoindian		Vertebrata	Indeterminate	2
W0/N8	28B	50BB2A	I	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
W0/N8	28B	50BB2A	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	28B	50BB2D	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	29A	50CC1A	I	Paleoindian		Vertebrata	Indeterminate	4
W0/N8	29A	50CC1A	I	Paleoindian		Vertebrata	Long bone	1
W0/N8	29A	50CC1B	I	Paleoindian		Vertebrata	Indeterminate	11
W0/N8	29A	50CC1B	I	Paleoindian		Vertebrata	Long bone	1
W0/N8	29A	50CC1C	I	Paleoindian		Vertebrata	Indeterminate	3
W0/N8	29A	50CC1D	I	Paleoindian		Vertebrata	Indeterminate	3
W0/N8	29B	50CC2A	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	29B	50CC2B	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	29B	50CC2C	I	Paleoindian		Vertebrata	Indeterminate	4
W0/N8	29B	50CC2D	I	Paleoindian		Vertebrata	Indeterminate	2
W0/N8	30	50DDA	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	30	50DDB	I	Paleoindian		Mammalia (Medium/large)	Long bone	1
W0/N8	30	50DDB	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	33A&B	50GG1&2	I	Paleoindian		Vertebrata	Indeterminate	6
W0/N8	33A&B	50GG1&2	I	Paleoindian		Vertebrata	Indeterminate	2
W0/N8	34A&B	50HH1&2	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	35A&B	50LL1&2	I	Paleoindian		Vertebrata	Indeterminate	1
W0/N8	37A&B	50KK1&2	I	Paleoindian		Vertebrata	Indeterminate	8
E2/N8	7	51GA	IIIc	Middle/L. Archaic	BRM2	Vertebrata	Indeterminate	3
E2/N8	8	51HD	IIIc	Middle/L. Archaic	BRM2	Mammalia (Medium/large)	Indeterminate	1
E2/N8	9	51IB	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	1
E2/N8	10	51JB	IIIc	M. Archaic	BRM2	Leporidae	Mandible	1
E2/N8	10	51JB	IIIc	M. Archaic	BRM2	Leporidae	Permanent tooth	3
E2/N8	10	51JB	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	6

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E2/N8	11	51KA	IIIc	M. Archaic	BRM2	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E2/N8	11	51KA	IIIc	M. Archaic	BRM2	<i>Antilocapra/Odocoileus</i>	Humerus	1
E2/N8	11	51KA	IIIc	M. Archaic	BRM2	Leporidae	Mandible	1
E2/N8	11	51KA	IIIc	M. Archaic	BRM2	Leporidae	Permanent tooth	3
E2/N8	11	51KA	IIIc	M. Archaic	BRM2	Mammalia (Medium/large)	Indeterminate	3
E2/N8	11	51KA	IIIc	M. Archaic	BRM2	<i>Odocoileus</i> sp.	Fused 3rd & 4th metatarsal	1
E2/N8	11	51KA	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	7
E2/N8	11	51KB	IIIc	M. Archaic	BRM2	Mammalia (Large)	Long bone	2
E2/N8	11	51KB	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	1
E2/N8	11	51KC	IIIc	M. Archaic	BRM2	Mammalia (Large)	Indeterminate	1
E2/N8	11	51KC	IIIc	M. Archaic	BRM2	Mammalia (Medium)	Ulna	1
E2/N8	11	51KC	IIIc	M. Archaic	BRM2	Mammalia (Medium/large)	Indeterminate	4
E2/N8	11	51KC	IIIc	M. Archaic	BRM2	Mammalia (Medium/large)	Long bone	1
E2/N8	11	51KC	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	5
E2/N8	11	51KD	IIIc	M. Archaic	BRM2	Vertebrata	Indeterminate	2
E2/N8	12	51LA	III	M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E2/N8	12	51LA	III	M. Archaic		Mammalia (Medium/large)	Long bone	1
E2/N8	12	51LA	III	M. Archaic		Vertebrata	Indeterminate	1
E2/N8	12	51LC	III	M. Archaic		Mammalia (Large)	Long bone	1
E2/N8	12	51LC	III	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E2/N8	12	51LC	III	M. Archaic		Mammalia (Medium/large)	Long bone	2
E2/N8	12	51LC	III	M. Archaic		Vertebrata	Indeterminate	2
E2/N8	13	51MA	III	M. Archaic		Mammalia (Large)	Indeterminate	1
E2/N8	13	51MA	III	M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E2/N8	13	51MB	III	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E2/N8	13	51MB	III	M. Archaic		Mammalia (Medium/large)	Long bone	2
E2/N8	13	51MC	III	M. Archaic		Mammalia (Medium/large)	Long bone	1
E2/N8	13	51MC	III	M. Archaic		Vertebrata	Indeterminate	8
E2/N8	13	51MD	III	M. Archaic		Mammalia (Medium/large)	Flat bone	3
E2/N8	13	51MD	III	M. Archaic		Mammalia (Medium/large)	Indeterminate	5
E2/N8	13	51MD	III	M. Archaic		Mammalia (Medium/large)	Long bone	2
E2/N8	13	51MD	III	M. Archaic		Medium/Large Vertebrata	Indeterminate	4
E2/N8	13	51MD	III	M. Archaic		Testudinata	Shell fragment	1
E2/N8	13	51MD	III	M. Archaic		Vertebrata	Indeterminate	4
E2/N8	14	51NB	III	Early/M. Archaic		Mammalia (Large)	Long bone	1
E2/N8	14	51NB	III	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E2/N8	14	51NC	III	Early/M. Archaic		Vertebrata	Indeterminate	3
E2/N8	14	51ND	III	Early/M. Archaic		Vertebrata	Indeterminate	7
E2/N8	15	51OA	III	E. Archaic		Vertebrata	Indeterminate	1
E2/N8	15	51OC	III	E. Archaic		Mammalia (Large)	Long bone	1
E2/N8	15	51OC	III	E. Archaic		Mammalia (Medium/large)	Long bone	1
E2/N8	15	51OD	III	E. Archaic		Mammalia (Medium/large)	Long bone	2
E2/N8	15	51OD	III	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E2/N8	16	51PA	III	E. Archaic		Vertebrata	Indeterminate	3
E2/N8	16	51PC	III	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E2/N8	17	51QC	III	E. Archaic		Vertebrata	Indeterminate	5
E2/N8	17	51QD	III	E. Archaic		Vertebrata	Indeterminate	2
E2/N8	19	51SB	III	E. Archaic		Vertebrata	Indeterminate	1
E2/N8	20	51TB	III	E. Archaic		Vertebrata	Indeterminate	2
E2/N8	21	51UA	III	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E2/N8	21	51UB	III	E. Archaic		Vertebrata	Indeterminate	1
E2/N8	22	51VB	III	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E2/N8	22	51VC	III	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E2/N8	23	51WB	II/III	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E2/N8	24	51XA	II	L. Paleo.		Vertebrata	Indeterminate	1
E2/N8	24	51XB	II	L. Paleo.		Vertebrata	Indeterminate	2
E2/N8	24	51XD	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E2/N8	24	51XD	II	L. Paleo.		Medium/Large Vertebrata	Long bone	4
E2/N8	25A	51Y1B	I/II	L. Paleo.		Vertebrata	Indeterminate	1
E2/N8	25A	51Y1C	I/II	L. Paleo.		Mammalia (Medium)	Femur	1
E2/N8	25A	51Y1C	I/II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E2/N8	25A	51Y1C	I/II	L. Paleo.		Vertebrata	Indeterminate	1
E2/N8	25A	51Y1D	I/II	L. Paleo.		Vertebrata	Indeterminate	9
E2/N8	25B	51Y2B	I	Paleoindian		Mammalia (Medium/large)	Long bone	1
E2/N8	25B	51Y2B	I	Paleoindian		Small/Medium Vertebrata	Indeterminate	2
E2/N8	25B	51Y2C	I	Paleoindian		Vertebrata	Indeterminate	5
E2/N8	25B	51Y2D	I	Paleoindian		Leporidae	Cranium	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E2/N8	25B	51Y2D	I	Paleoindian		Small/Medium Vertebrata	Indeterminate	1
E2/N8	25B	51Y2D	I	Paleoindian		Small/Medium Vertebrata	Long bone	1
E2/N8	25B	51Y2D	I	Paleoindian		Vertebrata	Indeterminate	1
E2/N8	26A	51Z1A	I	Paleoindian		Vertebrata	Indeterminate	1
E2/N8	26A	51Z1D	I	Paleoindian	f166	Vertebrata	Indeterminate	9
E2/N8	26B	51Z2A	I	Paleoindian		Vertebrata	Indeterminate	1
E2/N8	26B	51Z2B	I	Paleoindian		Vertebrata	Indeterminate	2
E2/N8	26B	51Z2C	I	Paleoindian		<i>Lepus californicus</i>	Calcaneus	1
E2/N8	26B	51Z2C	I	Paleoindian		Mammalia (Medium)	Metapodial	1
E2/N8	26B	51Z2C	I	Paleoindian		Vertebrata	Indeterminate	2
E2/N8	26B	51Z2D	I	Paleoindian	f166	Medium/Large Vertebrata	Long bone	1
E2/N8	26B	51Z2D	I	Paleoindian	f166	Small/Medium Vertebrata	Long bone	1
E2/N8	26B	51Z2D	I	Paleoindian	f166	Vertebrata	Indeterminate	6
E2/N8	27A	51AA1D	I	Paleoindian	f166	Vertebrata	Indeterminate	3
E2/N8	27B	51AA2D	I	Paleoindian	f166	Vertebrata	Indeterminate	1
E2/N8	28A	51BB1	I	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E2/N8	28A	51BB1	I	Paleoindian		Vertebrata	Indeterminate	2
E20/S72	2	17B	IIIc	L. Archaic/L. Prehist.		Artiodactyla	Tooth, perm./decid. ind.	1
E20/S72	2	17B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	7
E20/S72	3	17C	IIIc	L. Archaic		Artiodactyla	Phalange	3
E20/S72	3	17C	IIIc	L. Archaic		Mammalia (Large)	Femur	1
E20/S72	3	17C	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
E20/S72	3	17C	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E20/S72	3	17C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	6
E20/S72	3	17C	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S72	3	17C	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
E20/S72	3	17C	IIIc	L. Archaic		Vertebrata	Indeterminate	37
E20/S72	4	17D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Permanent tooth	1
E20/S72	4	17D	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E20/S72	4	17D	IIIc	L. Archaic		<i>Bison</i> sp.	Fused second & third tarsal	1
E20/S72	4	17D	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E20/S72	4	17D	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Distal phalange	1
E20/S72	4	17D	IIIc	L. Archaic		Vertebrata	Indeterminate	30
E20/S72	5	17E	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S72	5	17E	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
E20/S72	5	17E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	2
E20/S72	5	17E	IIIc	L. Archaic		Vertebrata	Indeterminate	28
E20/S72	6	17F	IIIc	Middle/L. Archaic		Mammalia (Large)	Indeterminate	1
E20/S72	6	17F	IIIc	Middle/L. Archaic		Mammalia (Large)	Long bone	1
E20/S72	6	17F	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	5
E20/S72	6	17F	IIIc	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
E20/S72	6	17F	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	41
E20/S72	7	17G	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S72	7	17G	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S72	7	17G	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S72	7	17G	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E20/S72	7	17G	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	38
E20/S72	8	17H	IIIb/c	M. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E20/S72	8	17H	IIIb/c	M. Archaic		Vertebrata	Indeterminate	27
E20/S72	9A	17I1	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S72	9A	17I1	IIIb/c	M. Archaic		Vertebrata	Indeterminate	3
E20/S72	9B	17I2	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S72	9B	17I2	IIIb/c	M. Archaic		Vertebrata	Indeterminate	2
E20/S72	10A	17J1	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	2
E20/S72	10B	17J2	IIIb/c	Early/M. Archaic		<i>Sternotherus</i> sp.	Hyoplastron	1
E20/S72	10B	17J2	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	3
E20/S72	11A	17K1	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S72	11A	17K1	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	3
E20/S72	11B	17K2	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S72	14A	17N1	IIIb	E. Archaic		Vertebrata	Indeterminate	1
E20/S72	14B	17N2	IIIa/b	E. Archaic		Mammalia (Large)	Long bone	1
E20/S72	14B	17N2	IIIa/b	E. Archaic		Medium/Large Vertebrata	Long bone	1
E20/S72	15A	17O1	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S72	16B	17P2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S72	16B	17P2	IIIa	E. Archaic		Vertebrata	Indeterminate	4
E20/S72	17B	17Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S72	18B	17R2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S72	19A	17S1	IIIa	E. Archaic		Vertebrata	Indeterminate	2
E20/S72	19B	17S2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S72	19B	17S2	IIIa	E. Archaic		Vertebrata	Indeterminate	4
E20/S72	20B	17T2	II/IIIa	L. Paleo./E. Archaic		cf. Leporidae	Alveolar ridge fragment	1
E20/S72	20B	17T2	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S72	20B	17T2	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E20/S72	20B	17T2	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E20/S72	20B	17T2	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
E20/S72	21A	17U1	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S72	21A	17U1	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S72	21A	17U1	II	L. Paleo.		Vertebrata	Indeterminate	1
E20/S72	21B	17U2	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S72	22A	17V1	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S72	22A	17V1	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S72	22A	17V1	II	L. Paleo.		Vertebrata	Indeterminate	3
E20/S72	23A	17W1	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Proximal abaxial sesamoid	1
E20/S72	23A	17W1	II	L. Paleo.		Vertebrata	Indeterminate	2
E20/S72	23B	17W2	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S72	23B	17W2	II	L. Paleo.		Vertebrata	Indeterminate	7
E20/S72	24B	17X2	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E20/S72	24B	17X2	II	L. Paleo.		Vertebrata	Indeterminate	1
E20/S72	25A	17Y1	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S72	25A	17Y1	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E20/S72	25B	17Y2	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E20/S72	25B	17Y2	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S72	26A	17Z1	Isi-c/Id/II	L. Paleo.		Mammalia (Medium)	Axis	1
E20/S72	26A	17Z1	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E20/S72	26A	17Z1	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	7
E20/S72	26A	17Z1	Isi-c/Id/II	L. Paleo.		Testudinata	Indeterminate	1
E20/S72	26A	17Z1	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	7
E20/S72	26B	17Z2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E20/S72	26B	17Z2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E20/S72	26B	17Z2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S72	26B	17Z2	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S72	26B	17Z2	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Long bone	3
E20/S72	26B	17Z2	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	8
E20/S72	27B	17AA2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	4
E20/S72	27B	17AA2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Proximal phalange	1
E20/S72	27B	17AA2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E20/S72	27B	17AA2	Isi-c/Id/II	L. Paleo.		Vertebrata	Caudal vertebra	1
E20/S72	27B	17AA2	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	36
E20/S72	27B	17AA2	Isi-c/Id/II	L. Paleo.		Vertebrata	Long bone	1
E20/S72	28A	17BB1	Isi-c/Id	L. Paleo.		Carnivora	Permanent tooth	4
E20/S72	28A	17BB1	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Caudal vertebra	1
E20/S72	28A	17BB1	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Metapodial	1
E20/S72	28A	17BB1	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E20/S72	28A	17BB1	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E20/S72	28A	17BB1	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Long bone	17
E20/S72	28A	17BB1	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Indeterminate	13
E20/S72	28A	17BB1	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	30
E20/S72	28B	17BB2	Isi-c	L. Paleo.		Mammalia (Medium)	Middle phalange	1
E20/S72	28B	17BB2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Caudal vertebra	1
E20/S72	28B	17BB2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E20/S72	28B	17BB2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	13
E20/S72	28B	17BB2	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	23
E20/S72	28B	17BB2	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S72	29A	17CC1	Isi-c	L. Paleo.		Mammalia (Medium)	Middle phalange	1
E20/S72	29A	17CC1	Isi-c	L. Paleo.		Mammalia (Medium/large)	Alveolar ridge fragment	1
E20/S72	29A	17CC1	Isi-c	L. Paleo.		Testudinata	Peripheral	1
E20/S72	29A	17CC1	Isi-c	L. Paleo.		Vertebrata	Indeterminate	10
E20/S72	29B	17CC2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S72	29B	17CC2	Isi-c	L. Paleo.		Vertebrata	Indeterminate	10
E20/S72	30A	17DD1	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E20/S72	31	17EE	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	2
E20/S72	31	17EE	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
E20/S72	31	17EE	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	25
E20/S72	34A	17HH1	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S72	34B-35A	17HH2/II	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S72	34B-35A	17HH2/II	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S72	35B-36A	17II2/JJ1	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E20/S72	36B-37A	17JJ2/KK	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Astragalus	1
E20/S72	36B-37A	17JJ2/KK	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E20/S72	36B-37A	17JJ2/KK	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	13
E20/S72	37B-38A	17KK2/LI	Isi	E. Paleo.		<i>Canis</i> sp.	Permanent tooth	5
E20/S72	37B-38A	17KK2/LI	Isi	E. Paleo.		Carnivora	Permanent tooth	1
E20/S72	37B-38A	17KK2/LI	Isi	E. Paleo.		Mammalia (Large)	Long bone	11
E20/S72	37B-38A	17KK2/LI	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E20/S72	37B-38A	17KK2/LI	Isi	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S72	37B-38A	17KK2/LI	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S72	37B-38A	17KK2/LI	Isi	E. Paleo.		Vertebrata	Indeterminate	62
E20/S72	38B-39A	17LL2/MI	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	10
E20/S72	38B-39A	17LL2/MI	Isi	E. Paleo.		Vertebrata	Indeterminate	17
E20/S72	39B-40A	17MM2/N	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S72	39B-40A	17MM2/N	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	9
E20/S72	39B-40A	17MM2/N	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Long bone	1
E20/S72	39B-40A	17MM2/N	Igl/Isi	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S72	39B-40A	17MM2/N	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	1
E20/S72	40B-41A	17NN2/O	Igl/Isi	E. Paleo.		Small/Medium Vertebrata	Long bone	4
E20/S72	41B-42A	17OO2/PI	Igl	E. Paleo.		Mammalia	Indeterminate	1
E20/S72	42B-43A	17PP2/QC	Igl	E. Paleo.		Vertebrata	Indeterminate	1
E20/S72	43B-44A	17QQ2/RI	Igl	E. Paleo.		Vertebrata	Indeterminate	2
E20/S72	44B-45A	17RR2/SS	Igl	E. Paleo.		Vertebrata	Indeterminate	4
E20/S72	45B-46A	17SS2/TT	Igl	E. Paleo.		Vertebrata	Indeterminate	4
E20/S74	1	16A	IIIc	L. Prehist.		Vertebrata	Indeterminate	5
E20/S74	2	16B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	3
E20/S74	3	16C	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	4
E20/S74	3	16C	IIIc	L. Archaic		Mammalia (Large)	Long bone	3
E20/S74	3	16C	IIIc	L. Archaic		Mammalia (Medium/large)	Alveolar ridge fragment	1
E20/S74	3	16C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	8
E20/S74	3	16C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Calcaneus	1
E20/S74	3	16C	IIIc	L. Archaic		Vertebrata	Indeterminate	39
E20/S74	4	16D	IIIc	L. Archaic		Mammalia (Large)	Long bone	2
E20/S74	4	16D	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S74	4	16D	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	2
E20/S74	4	16D	IIIc	L. Archaic		Vertebrata	Indeterminate	58
E20/S74	4	16D	IIIc	L. Archaic		Vertebrata	Long bone	1
E20/S74	5	16E	IIIc	L. Archaic		Mammalia (Large)	Long bone	2
E20/S74	5	16E	IIIc	L. Archaic		Mammalia (Large/very large)	Indeterminate	1
E20/S74	5	16E	IIIc	L. Archaic		Mammalia (Medium)	Pelvis	1
E20/S74	5	16E	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S74	5	16E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Antler	1
E20/S74	5	16E	IIIc	L. Archaic		Vertebrata	Indeterminate	10
E20/S74	6	16F	IIIc	Middle/L. Archaic		<i>Antilocapra americana</i>	Permanent tooth	1
E20/S74	6	16F	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Femur	1
E20/S74	6	16F	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E20/S74	6	16F	IIIc	Middle/L. Archaic		<i>Bison</i> sp.	Permanent tooth	1
E20/S74	6	16F	IIIc	Middle/L. Archaic		<i>Geomys</i> sp.	Tibia	1
E20/S74	6	16F	IIIc	Middle/L. Archaic		Mammalia (Large)	Indeterminate	3
E20/S74	6	16F	IIIc	Middle/L. Archaic		Mammalia (Large)	Long bone	6
E20/S74	6	16F	IIIc	Middle/L. Archaic		Mammalia (Medium)	Thoracic vertebra	1
E20/S74	6	16F	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	17
E20/S74	6	16F	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	3
E20/S74	6	16F	IIIc	Middle/L. Archaic		<i>Odocoileus</i> sp.	Distal phalange	1
E20/S74	6	16F	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	69
E20/S74	7	16G	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Cranium	1
E20/S74	7	16G	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fibula	1
E20/S74	7	16G	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E20/S74	7	16G	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	3
E20/S74	7	16G	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	3
E20/S74	7	16G	IIIc	Middle/L. Archaic		Mammalia (Large)	Long bone	2
E20/S74	7	16G	IIIc	Middle/L. Archaic		Mammalia (Large)	Mandible	1
E20/S74	7	16G	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	8
E20/S74	7	16G	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	2
E20/S74	7	16G	IIIc	Middle/L. Archaic		<i>Odocoileus</i> sp.	Fused 3rd & 4th metatarsal	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S74	7	16G	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	26
E20/S74	8	16H	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E20/S74	8	16H	IIIb/c	M. Archaic		Mammalia (Medium)	Rib	1
E20/S74	8	16H	IIIb/c	M. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S74	8	16H	IIIb/c	M. Archaic		Testudinata	Shell fragment	1
E20/S74	8	16H	IIIb/c	M. Archaic		Vertebrata	Indeterminate	21
E20/S74	9A	16I1	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S74	9A	16I1	IIIb/c	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
E20/S74	9A	16I1	IIIb/c	M. Archaic		Vertebrata	Indeterminate	4
E20/S74	9B	16I2	IIIb/c	M. Archaic		Vertebrata	Indeterminate	3
E20/S74	10A	16J1	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S74	10A	16J1	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	9
E20/S74	10B	16J2	IIIb/c	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S74	10B	16J2	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S74	10B	16J2	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	1
E20/S74	12B	16L2	IIIb	E. Archaic		Vertebrata	Indeterminate	3
E20/S74	14A	16N1	IIIb	E. Archaic		Vertebrata	Indeterminate	2
E20/S74	16A	16P1	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
E20/S74	16A	16P1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S74	16B	16P2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S74	16B	16P2	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S74	17A	16Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S74	17B	16Q2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S74	17B	16Q2	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E20/S74	18A	16R1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S74	18B	16R2	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E20/S74	19	16ST	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	1
E20/S74	19	16ST	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E20/S74	19A	16S1	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E20/S74	19A	16S1	IIIa	E. Archaic		Medium/Large Vertebrata	Long bone	2
E20/S74	19B	16S2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S74	19B	16S2	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S74	19B	16S2	IIIa	E. Archaic		Vertebrata	Indeterminate	2
E20/S74	20A	16T1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	11
E20/S74	20B	16T2	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	3
E20/S74	20B	16T2	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	4
E20/S74	20B	16T2	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E20/S74	20B	16T2	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E20/S74	21A	16U1	II	L. Paleo.		Vertebrata	Indeterminate	1
E20/S74	21B	16U2	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S74	21B	16U2	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S74	22A	16V1	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S74	22B	16V2	II	L. Paleo.		Mammalia (Large)	Long bone	1
E20/S74	23A	16W1	II	L. Paleo.		Mammalia (Large)	Long bone	1
E20/S74	23A	16W1	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S74	23B	16W2	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S74	24B	16X2	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E20/S74	24B	16X2	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E20/S74	24B	16X2	Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E20/S74	25A	16Y1	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S74	25B	16Y2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E20/S74	25B	16Y2	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	11
E20/S74	26A	16Z1	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E20/S74	26B	16Z2	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S74	26B	16Z2	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E20/S74	27A	16AA1	Isi-c	L. Paleo.		cf. <i>Canis</i> sp.	Accessory carpal bone	1
E20/S74	27A	16AA1	Isi-c	L. Paleo.		Large vertebrate, class ind.	Indeterminate	1
E20/S74	27A	16AA1	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E20/S74	27A	16AA1	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S74	27A	16AA1	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E20/S74	27B	16AA2	Isi-c	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S74	27B	16AA2	Isi-c	L. Paleo.		Aves	Long bone	1
E20/S74	27B	16AA2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S74	27B	16AA2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S74	27B	16AA2	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S74	27B	16AA2	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S74	27B	16AA2	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S74	28A	16BB1	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S74	28A	16BB1	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S74	28A	16BB1	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S74	28A	16BB1	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E20/S74	28A	16BB1	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E20/S74	29A	16CC1	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E20/S74	30A	16DD1	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E20/S74	30A	16DD1	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E20/S74	32A	16FF1C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S74	32B	16FF2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E20/S74	33B	16GG2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	5
E20/S74	34A	16HH1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E20/S74	34A	16HH1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E20/S74	34B	16HH2A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S74	34B	16HH2B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S74	34B	16HH2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E20/S74	35A	16II1A	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E20/S74	35A	16II1B	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E20/S74	35A	16II1C	Isi	E. Paleo.		Vertebrata	Indeterminate	25
E20/S74	35B	16II2A	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S74	35B	16II2A	Isi	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S74	35B	16II2A	Isi	E. Paleo.		Vertebrata	Indeterminate	34
E20/S74	35B	16II2B	Isi	E. Paleo.		Vertebrata	Indeterminate	3
E20/S74	36A	16JJ1A	Isi	E. Paleo.		Vertebrata	Indeterminate	8
E20/S74	36A	16JJ1D	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E20/S74	36B	16JJ2D	Isi	E. Paleo.		Vertebrata	Indeterminate	2
E20/S74	37A	16KK1B	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E20/S76	1	15A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S76	1	15A	IIIc	L. Prehist.		Vertebrata	Indeterminate	6
E20/S76	2	15B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S76	2	15B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	1
E20/S76	2	15B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	8
E20/S76	3	15C	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused central/fourth tarsal	1
E20/S76	3	15C	IIIc	L. Archaic		Leporidae	Cranium	2
E20/S76	3	15C	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	3
E20/S76	3	15C	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E20/S76	3	15C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	10
E20/S76	3	15C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Distal phalange	1
E20/S76	3	15C	IIIc	L. Archaic		<i>Procyon lotor</i>	Permanent tooth	1
E20/S76	3	15C	IIIc	L. Archaic		Vertebrata	Indeterminate	39
E20/S76	4	15D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused second & third tarsal	1
E20/S76	4	15D	IIIc	L. Archaic		<i>Bison</i> sp.	Proximal sesamoid	1
E20/S76	4	15D	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
E20/S76	4	15D	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E20/S76	4	15D	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	5
E20/S76	4	15D	IIIc	L. Archaic		Mammalia (Very large)	Long bone	1
E20/S76	4	15D	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S76	4	15D	IIIc	L. Archaic		Vertebrata	Indeterminate	52
E20/S76	4	15D	IIIc	L. Archaic		Vertebrata	Long bone	1
E20/S76	5	15E	IIIc	L. Archaic		Mammalia (Large)	Long bone	6
E20/S76	5	15E	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	10
E20/S76	5	15E	IIIc	L. Archaic		Mammalia (Small)	Sacrum	1
E20/S76	5	15E	IIIc	L. Archaic		Medium/Large Vertebrata	Indeterminate	2
E20/S76	5	15E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S76	5	15E	IIIc	L. Archaic		Vertebrata	Indeterminate	32
E20/S76	6	15F	IIIc	Middle/L. Archaic		Artiodactyla (Large)	Long bone	1
E20/S76	6	15F	IIIc	Middle/L. Archaic		Artiodactyla (Large)	Rib	1
E20/S76	6	15F	IIIc	Middle/L. Archaic		Mammalia (Large)	Indeterminate	1
E20/S76	6	15F	IIIc	Middle/L. Archaic		Mammalia (Large)	Long bone	5
E20/S76	6	15F	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S76	6	15F	IIIc	Middle/L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
E20/S76	6	15F	IIIc	Middle/L. Archaic		Testudinata	Nuchal	1
E20/S76	6	15F	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	9
E20/S76	7	15G	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused second & third tarsal	1
E20/S76	7	15G	IIIc	Middle/L. Archaic		Mammalia (Large)	Long bone	1
E20/S76	7	15G	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S76	7	15G	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S76	7	15G	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	10
E20/S76	7	15G	IIIc	Middle/L. Archaic		Vertebrata	Long bone	4
E20/S76	8	15H	IIIb/c	M. Archaic		Testudinata	Shell fragment	1
E20/S76	8	15H	IIIb/c	M. Archaic		Vertebrata	Indeterminate	2
E20/S76	9A	15I1	IIIb/c	Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S76	9B	15I2	IIIb/c	Archaic		Mammalia (Large)	Indeterminate	3
E20/S76	9B	15I2	IIIb/c	Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S76	9B	15I2	IIIb/c	Archaic		Vertebrata	Indeterminate	4
E20/S76	10A	15J1	IIIb/c	Early/M. Archaic		Mammalia (Large)	Long bone	2
E20/S76	10A	15J1	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S76	10A	15J1	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	3
E20/S76	10B	15J2	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	5
E20/S76	10B	15J2	IIIb	Early/M. Archaic		Vertebrata	Long bone	1
E20/S76	11A	15K1	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	1
E20/S76	12A	15L1	IIIb	E. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E20/S76	12A	15L1	IIIb	E. Archaic		Mammalia (Large)	Long bone	1
E20/S76	12A	15L1	IIIb	E. Archaic		Mammalia (Medium/large)	Long bone	9
E20/S76	12A	15L1	IIIb	E. Archaic		Medium/Large Vertebrata	Indeterminate	7
E20/S76	12A	15L1	IIIb	E. Archaic		Small/Medium Vertebrata	Long bone	1
E20/S76	12A	15L1	IIIb	E. Archaic		Vertebrata	Indeterminate	4
E20/S76	13A	15M1	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S76	13A	15M1	IIIb	E. Archaic		Vertebrata	Indeterminate	3
E20/S76	16A	15P1	IIIa	E. Archaic		Vertebrata	Indeterminate	2
E20/S76	17B	15Q2	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S76	18A	15R1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S76	18B	15R2	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E20/S76	19A	15S1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
E20/S76	19A	15S1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Tooth, perm./decid. ind.	1
E20/S76	19B	15S2	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Axis	1
E20/S76	19B	15S2	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S76	19B	15S2	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	8
E20/S76	20A	15T1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Mandible	1
E20/S76	20A	15T1	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E20/S76	20A	15T1	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	4
E20/S76	20A	15T1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
E20/S76	20B	15T2	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S76	20B	15T2	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S76	20B	15T2	II	L. Paleo.		Vertebrata	Indeterminate	2
E20/S76	21A	15U1	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S76	21A	15U1	II	L. Paleo.		Vertebrata	Indeterminate	1
E20/S76	21B	15U2	II	L. Paleo.		Mammalia (Very large)	Tooth, perm./decid. ind.	2
E20/S76	21B	15U2	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E20/S76	21B	15U2	II	L. Paleo.		Vertebrata	Indeterminate	2
E20/S76	23B	15W2	Id/II	L. Paleo.		Testudinata	Shell fragment	1
E20/S76	23B	15W2	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E20/S76	24A	15X1	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E20/S76	24A	15X1	Id/II	L. Paleo.		Mammalia (Very large)	Long bone	1
E20/S76	24A	15X1	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	6
E20/S76	24A	15X1	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S76	24A	15X1	Id/II	L. Paleo.		Vertebrata	Indeterminate	10
E20/S76	24B	15X2	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S76	24B	15X2	Id/II	L. Paleo.		Mammalia (Medium/large)	Vertebra	1
E20/S76	24B	15X2	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S76	24B	15X2	Id/II	L. Paleo.		Vertebrata	Indeterminate	4
E20/S76	25A	15Y1	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S76	25A	15Y1	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S76	25A	15Y1	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	7
E20/S76	25B	15Y2	Isi-c/Id	L. Paleo.		Mammalia (Large)	Long bone	1
E20/S76	25B	15Y2	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S76	25B	15Y2	Isi-c/Id	L. Paleo.		Testudinata	Shell fragment	1
E20/S76	25B	15Y2	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	2
E20/S76	26A	15Z1	Isi-c	L. Paleo.		Mammalia (Large)	Flat bone	1
E20/S76	26A	15Z1	Isi-c	L. Paleo.		Mammalia (Large)	Long bone	1
E20/S76	26A	15Z1	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E20/S76	26A	15Z1	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E20/S76	26A	15Z1	Isi-c	L. Paleo.		<i>Odocoileus</i> sp.	Intermediate carpal bone	1
E20/S76	26A	15Z1	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S76	26A	15Z1	Isi-c	L. Paleo.	f168	Testudinata	Shell fragment	1
E20/S76	26B	15Z2	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E20/S76	27B	15AA2	Isi-c	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E20/S76	27B	15AA2	Isi-c	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Ulna	1
E20/S76	27B	15AA2	Isi-c	L. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	1
E20/S76	27B	15AA2	Isi-c	L. Paleo.		<i>Bison</i> sp.	Cranium	1
E20/S76	27B	15AA2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E20/S76	27B	15AA2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	4
E20/S76	27B	15AA2	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S76	27B	15AA2	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S76	27B	15AA2	Isi-c	L. Paleo.		Vertebrata	Indeterminate	10
E20/S76	28A	15BB1	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E20/S76	28B	15BB2	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E20/S76	28B	15BB2	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E20/S76	29A	15CC1	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E20/S76	29A	15CC1	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	3
E20/S76	30B	15DD2	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E20/S76	31A	F168	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E20/S76	32A	15FF1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E20/S76	32A	15FF1C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E20/S76	32A	15FF1C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E20/S76	32A	15FF1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E20/S76	32A	15FF1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E20/S76	32B	15FF2A	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S76	32B	15FF2B	Isi	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S76	32B	15FF2C	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S76	32B	15FF2C	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S76	32B	15FF2D	Isi	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S76	32B	15FF2D	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E20/S76	33A	15GG1A	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E20/S76	33A	15GG1A	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E20/S76	33B	15GG2C	Isi	E. Paleo.		Mammalia (Medium/large)	Permanent tooth	1
E20/S76	33B	15GG2C	Isi	E. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
E20/S76	34A	15HH1C	Isi	E. Paleo.		Vertebrata	Indeterminate	2
E20/S76	34A	15HH1D	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E20/S76	35B	15II2D	Isi	E. Paleo.		Vertebrata	Indeterminate	4
E20/S78	1	14A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	3
E20/S78	1	14A	IIIc	L. Prehist.		Vertebrata	Indeterminate	19
E20/S78	2	14B	IIIc	L. Archaic/L. Prehist.		Artiodactyla (Medium)	Cranium	1
E20/S78	2	14B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	3
E20/S78	2	14B	IIIc	L. Archaic/L. Prehist.		<i>Sylvilagus</i> sp.	Calcaneus	1
E20/S78	2	14B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	13
E20/S78	3	14C	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	3
E20/S78	3	14C	IIIc	L. Archaic		Mammalia (Medium/large)	Cranium	1
E20/S78	3	14C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	5
E20/S78	3	14C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	2
E20/S78	3	14C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Proximal phalange	1
E20/S78	3	14C	IIIc	L. Archaic		Vertebrata	Indeterminate	18
E20/S78	4	14D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S78	4	14D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Intermediate carpal bone	1
E20/S78	4	14D	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E20/S78	4	14D	IIIc	L. Archaic		Mammalia (Large)	Podial	1
E20/S78	4	14D	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	8
E20/S78	4	14D	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S78	4	14D	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E20/S78	4	14D	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S78	4	14D	IIIc	L. Archaic		Vertebrata	Indeterminate	41
E20/S78	5	14E	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	4
E20/S78	5	14E	IIIc	L. Archaic		Mammalia (Large)	Long bone	3
E20/S78	5	14E	IIIc	L. Archaic		Mammalia (Medium/large)	Cranium	1
E20/S78	5	14E	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	12
E20/S78	5	14E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S78	5	14E	IIIc	L. Archaic		Vertebrata	Indeterminate	37
E20/S78	5	14E	IIIc	L. Archaic		Vertebrata	Long bone	1
E20/S78	6	14F	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Distal fibula	1
E20/S78	6	14F	IIIc	Middle/L. Archaic		<i>Canis</i> sp.	Fourth tarsal	1
E20/S78	6	14F	IIIc	Middle/L. Archaic		Mammalia (Large)	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S78	6	14F	IIIc	Middle/L. Archaic		Mammalia (Large)	Long bone	1
E20/S78	6	14F	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Mandible	1
E20/S78	6	14F	IIIc	Middle/L. Archaic		<i>Odocoileus</i> sp.	Cranium	1
E20/S78	6	14F	IIIc	Middle/L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	2
E20/S78	6	14F	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	48
E20/S78	7	14G	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S78	7	14G	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	8
E20/S78	8	14H	IIIb/c	M. Archaic		<i>Canis</i> sp.	Metacarpal 5	1
E20/S78	8	14H	IIIb/c	M. Archaic		Leporidae	Central tarsal bone	1
E20/S78	9A	14I1	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	4
E20/S78	10B	14J2	IIIb	E. Archaic		Vertebrata	Indeterminate	2
E20/S78	12	14L	IIIb	E. Archaic	f50	Medium/Large Vertebrata	Long bone	4
E20/S78	12	14L	IIIb	E. Archaic	f50	Small/Medium Vertebrata	Long bone	1
E20/S78	12	14L	IIIb	E. Archaic	f50	Vertebrata	Indeterminate	2
E20/S78	12A	14L1	IIIb	E. Archaic		Vertebrata	Indeterminate	11
E20/S78	12B	14L2	IIIb	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E20/S78	12B	14L2	IIIb	E. Archaic		Vertebrata	Indeterminate	1
E20/S78	13A	14M1	IIIb	E. Archaic		Mammalia (Large)	Long bone	1
E20/S78	13A	14M1	IIIb	E. Archaic		Vertebrata	Indeterminate	1
E20/S78	14A	14N1	IIIa/b	E. Archaic		Vertebrata	Indeterminate	1
E20/S78	14B	14N2	IIIa	E. Archaic		Testudinata	Peripheral	1
E20/S78	14B	14N2	IIIa	E. Archaic		Testudinata	Shell fragment	3
E20/S78	15A	14O1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S78	15B	14O2	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S78	15B	14O2	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S78	16B	14P2	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S78	17A	14Q1	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E20/S78	17B	14Q2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S78	17B	14Q2	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S78	17B	14Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E20/S78	18A	14R1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S78	18B	14R2	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E20/S78	19A	14S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Axis	1
E20/S78	19A	14S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S78	19A	14S1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Long bone	1
E20/S78	20A	14T1	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S78	20A	14T1	II	L. Paleo.		Vertebrata	Indeterminate	1
E20/S78	20B	14T2	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S78	20B	14T2	II	L. Paleo.		Mammalia (Medium/large)	Long bone	3
E20/S78	21A	14U1	II	L. Paleo.		Vertebrata	Indeterminate	1
E20/S78	21B	14U2	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E20/S78	21B	14U2	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S78	21B	14U2	Id/II	L. Paleo.		Vertebrata	Indeterminate	6
E20/S78	22B	14V2	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E20/S78	23A	14W1	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S78	23A	14W1	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S78	23A	14W1	Id/II	L. Paleo.		Testudinata	Shell fragment	1
E20/S78	23B	14W2	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	4
E20/S78	23B	14W2	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S78	23B	14W2	Id/II	L. Paleo.		<i>Odocoileus</i> sp.	Metacarpal	1
E20/S78	23B	14W2	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E20/S78	23B	14W2	Id/II	L. Paleo.		Vertebrata	Indeterminate	9
E20/S78	24A	14X1	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E20/S78	24B	14X2	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S78	24B	14X2	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E20/S78	24B	14X2	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	5
E20/S78	25A	14Y1	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S78	25B	14Y2	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E20/S78	25B	14Y2	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E20/S78	26A	14Z1	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E20/S78	26B	14Z2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S78	26B	14Z2	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S78	26B	14Z2	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E20/S78	27A	14AA1	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S78	27A	14AA1	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E20/S78	30	F169	Isi-c	L. Paleo.	f169	Vertebrata	Indeterminate	1
E20/S78	30-34A	14DDHH	Isi/Isi-c	Paleoindian	f169	Mammalia (Medium)	Metapodial	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S78	30-34A	14DDHH	Isi/Isi-c	Paleoindian	f169	Vertebrata	Indeterminate	1
E20/S78	30A	14DD1A	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E20/S78	30B	14DD2D	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E20/S78	31B	14EE2A	Isi	E. Paleo.		Vertebrata	Indeterminate	2
E20/S78	31B	14EE2B	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S78	37B	14KK2C	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E20/S80	1	13A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	3
E20/S80	1	13A	IIIc	L. Prehist.		Vertebrata	Indeterminate	6
E20/S80	2	13B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	3
E20/S80	2	13B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	8
E20/S80	3	13C	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S80	3	13C	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
E20/S80	3	13C	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	2
E20/S80	3	13C	IIIc	L. Archaic		Mammalia (Medium)	Metapodial	1
E20/S80	3	13C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	6
E20/S80	3	13C	IIIc	L. Archaic		Vertebrata	Indeterminate	25
E20/S80	4	13D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Antler	1
E20/S80	4	13D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Femur	2
E20/S80	4	13D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S80	4	13D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Pelvis	1
E20/S80	4	13D	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E20/S80	4	13D	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S80	4	13D	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	13
E20/S80	4	13D	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Fused second & third carpal	1
E20/S80	4	13D	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
E20/S80	4	13D	IIIc	L. Archaic		Vertebrata	Indeterminate	37
E20/S80	4	13D	IIIc	L. Archaic		Vertebrata	Long bone	1
E20/S80	5	13E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E20/S80	5	13E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E20/S80	5	13E	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S80	5	13E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Fused 3rd & 4th metatarsal	1
E20/S80	5	13E	IIIc	L. Archaic		Vertebrata	Indeterminate	8
E20/S80	6	13F	IIIc	L. Archaic		<i>Bison</i> sp.	Proximal axial sesamoid	1
E20/S80	7	13G	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E20/S80	7	13G	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	5
E20/S80	7	13G	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	12
E20/S80	8	13H	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Lumbar vertebra	1
E20/S80	8	13H	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S80	8	13H	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	2
E20/S80	8	13H	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	1
E20/S80	9	13I	IIIb/c	M. Archaic		Mammalia (Large)	Long bone	1
E20/S80	9	13I	IIIb/c	M. Archaic		Mammalia (Large)	Patella	1
E20/S80	11	13K	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	2
E20/S80	13	13M	IIIb	E. Archaic		Mammalia (Medium/large)	Long bone	3
E20/S80	14	13N	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S80	16	13P	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E20/S80	21	13U	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S80	22	13V	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S80	22	13V	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E20/S80	23	13W	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S80	23	13W	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Podial	1
E20/S80	25	13Y	Isi-c	L. Paleo.		Mammalia (Medium)	Long bone	1
E20/S80	25	13Y	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S80	25	13Y	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S80	25	13Y	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E20/S80	26	13AA	Isi/Isi-c	Paleoindian		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S80	26	13AA	Isi/Isi-c	Paleoindian		Mammalia (Large)	Indeterminate	1
E20/S80	26	13AA	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E20/S80	27	13BB	Isi	E. Paleo.		Vertebrata	Indeterminate	8
E20/S82	1	12A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	1
E20/S82	1	12A	IIIc	L. Prehist.		Vertebrata	Indeterminate	31
E20/S82	2	12B	IIIc	L. Archaic/L. Prehist.	f7	<i>Antilocapra/Odocoileus</i>	Fused second & third tarsal	1
E20/S82	2	12B	IIIc	L. Archaic/L. Prehist.	f7	Artiodactyla	Tooth, perm./decid. ind.	2
E20/S82	2	12B	IIIc	L. Archaic/L. Prehist.	f7	Mammalia (Large)	Vertebra	1
E20/S82	2	12B	IIIc	L. Archaic/L. Prehist.	f7	Mammalia (Medium/large)	Indeterminate	4
E20/S82	2	12B	IIIc	L. Archaic/L. Prehist.	f7	Vertebrata	Indeterminate	57
E20/S82	3	12C	IIIc	L. Archaic		Carnivora	Tooth, perm./decid. ind.	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S82	4	12D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Humerus	2
E20/S82	4	12D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
E20/S82	4	12D	IIIc	L. Archaic		Artiodactyla	Phalange	2
E20/S82	4	12D	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	3
E20/S82	4	12D	IIIc	L. Archaic		<i>Bison</i> sp.	Radial carpal bone	1
E20/S82	4	12D	IIIc	L. Archaic		<i>Canis</i> sp.	Permanent tooth	1
E20/S82	4	12D	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
E20/S82	4	12D	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E20/S82	4	12D	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S82	4	12D	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E20/S82	4	12D	IIIc	L. Archaic		Vertebrata	Indeterminate	61
E20/S82	5	12E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S82	5	12E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	2
E20/S82	5	12E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E20/S82	5	12E	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	7
E20/S82	5	12E	IIIc	L. Archaic		Leporidae	Permanent tooth	1
E20/S82	5	12E	IIIc	L. Archaic		Leporidae	Tibia	1
E20/S82	5	12E	IIIc	L. Archaic		Mammalia (Large)	Long bone	4
E20/S82	5	12E	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	25
E20/S82	5	12E	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	2
E20/S82	5	12E	IIIc	L. Archaic		Medium/Large Vertebrata	Long bone	1
E20/S82	5	12E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Mandible	1
E20/S82	5	12E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Pelvis	1
E20/S82	5	12E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S82	5	12E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Prox. phalange of paradigit	1
E20/S82	5	12E	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
E20/S82	5	12E	IIIc	L. Archaic		Vertebrata	Indeterminate	262
E20/S82	5	12E	IIIc	L. Archaic		Vertebrata	Rib	1
E20/S82	6	12F	IIIc	M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S82	6	12F	IIIc	M. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E20/S82	6	12F	IIIc	M. Archaic		<i>Antilocapra/Odocoileus</i>	Ulna	1
E20/S82	6	12F	IIIc	M. Archaic		Emydidae	Neural	1
E20/S82	6	12F	IIIc	M. Archaic		Kinosternidae	Peripheral	1
E20/S82	6	12F	IIIc	M. Archaic		Leporidae	Radius	1
E20/S82	6	12F	IIIc	M. Archaic		Mammalia (Large)	Long bone	1
E20/S82	6	12F	IIIc	M. Archaic		Mammalia (Medium/large)	Cranium	1
E20/S82	6	12F	IIIc	M. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S82	6	12F	IIIc	M. Archaic		Mammalia (Medium/large)	Long bone	2
E20/S82	6	12F	IIIc	M. Archaic		Mammalia (Small/medium)	Ulna	1
E20/S82	6	12F	IIIc	M. Archaic		<i>Odocoileus</i> sp.	Distal phalange	1
E20/S82	6	12F	IIIc	M. Archaic		Testudinata	Shell fragment	1
E20/S82	6	12F	IIIc	M. Archaic		Vertebrata	Indeterminate	52
E20/S82	7	12G	IIIb/c	Early/M. Archaic		Carnivora	Tooth, perm./decid. ind.	1
E20/S82	7	12G	IIIb/c	Early/M. Archaic		Leporidae	Humerus	1
E20/S82	7	12G	IIIb/c	Early/M. Archaic		Leporidae	Permanent tooth	1
E20/S82	7	12G	IIIb/c	Early/M. Archaic		Testudinata	Shell fragment	1
E20/S82	7	12G	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	23
E20/S82	8	12H	IIIb/c	Early/M. Archaic		Mammalia (Large)	Indeterminate	4
E20/S82	8	12H	IIIb/c	Early/M. Archaic		Mammalia (Large)	Long bone	1
E20/S82	8	12H	IIIb/c	Early/M. Archaic		<i>Odocoileus</i> sp.	Distal phalange	1
E20/S82	8	12H	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	16
E20/S82	9	12I	IIIb/c	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Fourth carpal bone	1
E20/S82	9	12I	IIIb/c	Early/M. Archaic		Mammalia (Large)	Indeterminate	1
E20/S82	9	12I	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S82	9	12I	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	12
E20/S82	10	12J	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	8
E20/S82	11	12K	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S82	11	12K	IIIb	E. Archaic		Vertebrata	Indeterminate	1
E20/S82	12	12L	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S82	12	12L	IIIb	E. Archaic		Vertebrata	Indeterminate	10
E20/S82	13	12M	IIIb	E. Archaic		<i>Canis</i> sp.	Permanent tooth	1
E20/S82	13	12M	IIIb	E. Archaic		Mammalia (Large)	Indeterminate	1
E20/S82	13	12M	IIIb	E. Archaic		Mammalia (Medium)	Proximal phalange	1
E20/S82	13	12M	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S82	13	12M	IIIb	E. Archaic		Mammalia (Medium/large)	Long bone	4
E20/S82	13	12M	IIIb	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E20/S82	13	12M	IIIb	E. Archaic		Small/Medium Vertebrata	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S82	13	12M	IIIb	E. Archaic		Vertebrata	Indeterminate	9
E20/S82	14	12N	IIIa/b	E. Archaic		Vertebrata	Indeterminate	3
E20/S82	15	12O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S82	15	12O	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	4
E20/S82	15	12O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	2
E20/S82	16	12P	IIIa	E. Archaic		Mammalia (Large)	Indeterminate	1
E20/S82	16	12P	IIIa	E. Archaic		Mammalia (Large)	Long bone	2
E20/S82	16	12P	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S82	16	12P	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S82	17	12Q	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S82	17	12Q	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	2
E20/S82	17	12Q	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E20/S82	17	12Q	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	2
E20/S82	17	12Q	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
E20/S82	18	12R	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	9
E20/S82	18	12R	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Phalange	1
E20/S82	19	12S	II	L. Paleo.		Vertebrata	Indeterminate	6
E20/S82	20	12T	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	7
E20/S82	20	12T	II	L. Paleo.		Mammalia (Medium/large)	Long bone	8
E20/S82	20	12T	II	L. Paleo.		Medium/Large Vertebrata	Cranium	1
E20/S82	20	12T	II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	5
E20/S82	20	12T	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S82	20	12T	II	L. Paleo.		Vertebrata	Indeterminate	4
E20/S82	21	12U	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Humerus	1
E20/S82	21	12U	II	L. Paleo.		Mammalia (Medium)	Pelvis	1
E20/S82	21	12U	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S82	21	12U	II	L. Paleo.		Vertebrata	Indeterminate	1
E20/S82	22	12V	II	L. Paleo.		Mammalia (Medium/large)	Long bone	9
E20/S82	22	12V	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E20/S82	22	12V	II	L. Paleo.		Vertebrata	Indeterminate	6
E20/S82	23	12W	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E20/S84	1	11A	IIIc	L. Prehist.		Mammalia (Large)	Long bone	1
E20/S84	1	11A	IIIc	L. Prehist.		Mammalia (Medium/large)	Alveolar ridge fragment	1
E20/S84	1	11A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	5
E20/S84	1	11A	IIIc	L. Prehist.		Vertebrata	Indeterminate	17
E20/S84	2	11B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Third carpal bone	1
E20/S84	2	11B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Ulnar carpal bone	1
E20/S84	2	11B	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Long bone	1
E20/S84	2	11B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	2
E20/S84	2	11B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	2
E20/S84	2	11B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Humerus	4
E20/S84	2	11B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S84	2	11B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	48
E20/S84	3	11C	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S84	3	11C	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Pelvis	1
E20/S84	3	11C	IIIc	L. Archaic		Kinosternidae	Peripheral	1
E20/S84	3	11C	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	4
E20/S84	3	11C	IIIc	L. Archaic		Mammalia (Large)	Long bone	2
E20/S84	3	11C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	9
E20/S84	3	11C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Antler	1
E20/S84	3	11C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S84	3	11C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
E20/S84	3	11C	IIIc	L. Archaic		Testudinata	Shell fragment	1
E20/S84	3	11C	IIIc	L. Archaic		Vertebrata	Indeterminate	71
E20/S84	4	11D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused central/fourth tarsal	1
E20/S84	4	11D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E20/S84	4	11D	IIIc	L. Archaic		Colubridae	Dorsal vertebra	1
E20/S84	4	11D	IIIc	L. Archaic		Mammalia (Large)	Vertebra	1
E20/S84	4	11D	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	9
E20/S84	4	11D	IIIc	L. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
E20/S84	4	11D	IIIc	L. Archaic		Vertebrata	Indeterminate	46
E20/S84	4	11D	IIIc	L. Archaic		Vertebrata	Long bone	2
E20/S84	5	11E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	2
E20/S84	5	11E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E20/S84	5	11E	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	9
E20/S84	5	11E	IIIc	L. Archaic		Mammalia (Large)	Long bone	2
E20/S84	5	11E	IIIc	L. Archaic		Mammalia (Medium)	Middle phalange	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S84	5	11E	IIIc	L. Archaic		Mammalia (Medium)	Ulna	1
E20/S84	5	11E	IIIc	L. Archaic		Mammalia (Medium/large)	Alveolar ridge fragment	1
E20/S84	5	11E	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	8
E20/S84	5	11E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S84	5	11E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
E20/S84	5	11E	IIIc	L. Archaic		<i>Sciurus</i> sp.	Calcaneus	1
E20/S84	5	11E	IIIc	L. Archaic		Testudinata	Shell fragment	1
E20/S84	5	11E	IIIc	L. Archaic		Vertebrata	Indeterminate	98
E20/S84	6	11F	IIIc	Middle/L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	6
E20/S84	6	11F	IIIc	Middle/L. Archaic		Leporidae	Permanent tooth	1
E20/S84	6	11F	IIIc	Middle/L. Archaic		Mammalia (Medium)	Tooth, perm./decid. ind.	1
E20/S84	6	11F	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S84	6	11F	IIIc	Middle/L. Archaic		<i>Odocoileus</i> sp.	Fused 3rd & 4th metatarsal	1
E20/S84	6	11F	IIIc	Middle/L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S84	6	11F	IIIc	Middle/L. Archaic		Serpentes	Dorsal vertebra	1
E20/S84	6	11F	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	75
E20/S84	7	11G	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E20/S84	7	11G	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Tibia	2
E20/S84	7	11G	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S84	7	11G	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	3
E20/S84	7	11G	IIIc	Middle/L. Archaic		Medium/Large Vertebrata	Phalange	1
E20/S84	7	11G	IIIc	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	2
E20/S84	7	11G	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	9
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal abaxial sesamoid	1
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		cf. Leporidae	Humerus	1
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		Leporidae	Cranium	1
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		Mammalia (Medium)	Middle phalange	1
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		Medium/Large Vertebrata	Indeterminate	5
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		Serpentes	Dorsal vertebra	1
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	2
E20/S84	8	11H	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	6
E20/S84	9	11I	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E20/S84	9	11I	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S84	9	11I	IIIb/c	M. Archaic		Medium/Large Vertebrata	Indeterminate	1
E20/S84	9	11I	IIIb/c	M. Archaic		Vertebrata	Indeterminate	3
E20/S84	10	11J	IIIb/c	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E20/S84	10	11J	IIIb/c	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Radial carpal bone	1
E20/S84	10	11J	IIIb/c	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E20/S84	10	11J	IIIb/c	Early/M. Archaic		Mammalia (Large)	Long bone	1
E20/S84	10	11J	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S84	10	11J	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	71
E20/S84	11	11K	IIIb	Early/M. Archaic		Mammalia (Medium)	Metapodial	1
E20/S84	11	11K	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S84	11	11K	IIIb	Early/M. Archaic		<i>Odocoileus</i> sp.	Distal phalange	1
E20/S84	11	11K	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	4
E20/S84	12	11L	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S84	12	11L	IIIb	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S84	12	11L	IIIb	E. Archaic		Medium/Large Vertebrata	Indeterminate	6
E20/S84	12	11L	IIIb	E. Archaic		Small/Medium Vertebrata	Long bone	2
E20/S84	12	11L	IIIb	E. Archaic		Vertebrata	Indeterminate	6
E20/S84	13	11M	IIIb	E. Archaic		Leporidae	Tibia	1
E20/S84	13	11M	IIIb	E. Archaic		Vertebrata	Indeterminate	14
E20/S84	14	11N	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S84	14	11N	IIIa/b	E. Archaic		Vertebrata	Indeterminate	25
E20/S84	15	11O	IIIa/b	E. Archaic		<i>Antilocapra/Odocoileus</i>	Fused central/fourth tarsal	1
E20/S84	15	11O	IIIa/b	E. Archaic		<i>Canis</i> sp.	Permanent tooth	4
E20/S84	15	11O	IIIa/b	E. Archaic		<i>Felis rufus</i>	Ulna	1
E20/S84	15	11O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	7
E20/S84	15	11O	IIIa/b	E. Archaic		Medium vertebrate, class ind.	Proximal phalange	1
E20/S84	15	11O	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E20/S84	15	11O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	15
E20/S84	16	11P	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E20/S84	16	11P	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E20/S84	16	11P	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Tibia	1
E20/S84	16	11P	IIIa	E. Archaic		cf. Leporidae	Pelvis	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S84	16	11P	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S84	16	11P	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	5
E20/S84	16	11P	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	8
E20/S84	16	11P	IIIa	E. Archaic		Medium/Large Vertebrata	Long bone	3
E20/S84	16	11P	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E20/S84	17	11Q	IIIa	E. Archaic		Mammalia (Large)	Long bone	1
E20/S84	17	11Q	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S84	17	11Q	IIIa	E. Archaic		Vertebrata	Indeterminate	14
E20/S84	18	11R	II/IIIa	L. Paleo./E. Archaic		Artiodactyla	Phalange	1
E20/S84	18	11R	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S84	18	11R	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Ulna	1
E20/S84	18	11R	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	11
E20/S84	19	11S	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S84	19	11S	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S84	19	11S	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E20/S84	19	11S	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E20/S84	19	11S	II	L. Paleo.		Vertebrata	Indeterminate	3
E20/S84	20	11T	II	L. Paleo.		Mammalia (Medium/large)	Long bone	4
E20/S84	20	11T	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E20/S84	20	11T	II	L. Paleo.		Vertebrata	Indeterminate	6
E20/S84	21	11U	X/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	8
E20/S84	21	11U	X/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E20/S84	21	11U	X/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E20/S84	21	11U	X/II	L. Paleo.		Testudinata	Shell fragment	1
E20/S84	21	11U	X/II	L. Paleo.		Vertebrata	Indeterminate	2
E20/S84	22	11V	X/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	5
E20/S84	22	11V	X/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E20/S84	22	11V	X/II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E20/S84	23	11W	X/Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E20/S86	1	10A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	1
E20/S86	1	10A	IIIc	L. Prehist.		Vertebrata	Indeterminate	56
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	2
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused second & third tarsal	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Metapodial	2
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Middle phalange	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Radial carpal bone	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Tibia	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Artiodactyla	Phalange	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Artiodactyla	Prox. phalange of paradigit	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Artiodactyla	Tooth, perm./decid. ind.	3
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Colubridae	Dorsal vertebra	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Cranium	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	5
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	19
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	2
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Calcaneus	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Humerus	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Permanent tooth	2
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Testudinata	Pleural	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Testudinata	Shell fragment	1
E20/S86	2	10B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	385
E20/S86	3	10C	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Intermediate carpal bone	1
E20/S86	3	10C	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Scapula	1
E20/S86	3	10C	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E20/S86	3	10C	IIIc	L. Archaic		Mammalia (Large)	Long bone	4
E20/S86	3	10C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	13
E20/S86	3	10C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Dist. phalange of paradigit	1
E20/S86	3	10C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Middle phalange	1
E20/S86	3	10C	IIIc	L. Archaic		Testudinata	Shell fragment	1
E20/S86	3	10C	IIIc	L. Archaic		Vertebrata	Indeterminate	124
E20/S86	4	10D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Humerus	1
E20/S86	4	10D	IIIc	L. Archaic		cf. <i>Odocoileus</i> sp.	Tibia	1
E20/S86	4	10D	IIIc	L. Archaic		Kinosternidae	Shell fragment	1
E20/S86	4	10D	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S86	4	10D	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E20/S86	4	10D	IIIc	L. Archaic		Vertebrata	Indeterminate	17
E20/S86	5	10E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Cervical vertebra	1
E20/S86	5	10E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Distal fibula	1
E20/S86	5	10E	IIIc	L. Archaic		<i>Bison</i> sp.	Fused 3rd & 4th metacarpal	1
E20/S86	5	10E	IIIc	L. Archaic		Leporidae	Scapula	1
E20/S86	5	10E	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	3
E20/S86	5	10E	IIIc	L. Archaic		Mammalia (Large)	Long bone	2
E20/S86	5	10E	IIIc	L. Archaic		Mammalia (Medium/large)	Alveolar ridge fragment	1
E20/S86	5	10E	IIIc	L. Archaic		Mammalia (Medium/large)	Cranium	1
E20/S86	5	10E	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S86	5	10E	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	2
E20/S86	5	10E	IIIc	L. Archaic		Mammalia (Very large)	Rib	2
E20/S86	5	10E	IIIc	L. Archaic		Medium/Large Vertebrata	Compact bone	1
E20/S86	5	10E	IIIc	L. Archaic		Medium/Large Vertebrata	Indeterminate	18
E20/S86	5	10E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Middle phalange	1
E20/S86	5	10E	IIIc	L. Archaic		Osteichthyes	Vertebra	1
E20/S86	5	10E	IIIc	L. Archaic		Serpentes	Dorsal vertebra	1
E20/S86	5	10E	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
E20/S86	5	10E	IIIc	L. Archaic		Testudinata	Carapace fragment ind.	1
E20/S86	5	10E	IIIc	L. Archaic		Testudinata	Peripheral	2
E20/S86	5	10E	IIIc	L. Archaic		Testudinata	Pleural	1
E20/S86	5	10E	IIIc	L. Archaic		Testudinata	Shell fragment	2
E20/S86	5	10E	IIIc	L. Archaic		Vertebrata	Indeterminate	69
E20/S86	6	10F	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Mid. phalange of paradigit	1
E20/S86	6	10F	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Thoracic vertebra	1
E20/S86	6	10F	IIIc	Middle/L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	3
E20/S86	6	10F	IIIc	Middle/L. Archaic		<i>Lepus californicus</i>	Cranium	2
E20/S86	6	10F	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	5
E20/S86	6	10F	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E20/S86	6	10F	IIIc	Middle/L. Archaic		Testudinata	Plastron fragment ind.	1
E20/S86	6	10F	IIIc	Middle/L. Archaic		Testudinata	Shell fragment	1
E20/S86	6	10F	IIIc	Middle/L. Archaic		Trionyx sp.	Neural	2
E20/S86	6	10F	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	47
E20/S86	7	10G	IIIc	Middle/L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E20/S86	7	10G	IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	4
E20/S86	7	10G	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Indeterminate	16
E20/S86	8	10H	IIIc	M. Archaic		Testudinata	Shell fragment	1
E20/S86	8	10H	IIIc	M. Archaic		Vertebrata	Indeterminate	12
E20/S86	9	10I	IIIb/c	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S86	9	10I	IIIb/c	Early/M. Archaic		Mammalia (Large)	Indeterminate	1
E20/S86	9	10I	IIIb/c	Early/M. Archaic		Mammalia (Large)	Long bone	1
E20/S86	9	10I	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S86	9	10I	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	9
E20/S86	10	10J	IIIb	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E20/S86	10	10J	IIIb	Early/M. Archaic		Mammalia (Large)	Long bone	1
E20/S86	10	10J	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S86	10	10J	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	3
E20/S86	11	10K	IIIb	E. Archaic		<i>Lepus californicus</i>	Tibia	1
E20/S86	11	10K	IIIb	E. Archaic		Mammalia (Large)	Humerus	1
E20/S86	11	10K	IIIb	E. Archaic		Mammalia (Large)	Indeterminate	5
E20/S86	11	10K	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S86	11	10K	IIIb	E. Archaic		Vertebrata	Indeterminate	17
E20/S86	12	10L	X/IIIb	E. Archaic		Vertebrata	Indeterminate	2
E20/S86	13	10M	X/IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S86	13	10M	X/IIIb	E. Archaic		Vertebrata	Indeterminate	6
E20/S86	14	10N	X/IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S86	14	10N	X/IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S86	14	10N	X/IIIa/b	E. Archaic		Vertebrata	Indeterminate	1
E20/S86	15	10O	X/IIIa	E. Archaic		Mammalia (Large)	Indeterminate	1
E20/S86	15	10O	X/IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S86	15	10O	X/IIIa	E. Archaic		Vertebrata	Indeterminate	13
E20/S86	16	10P	X/II/IIIa	E. Archaic		<i>Lepus californicus</i>	Calcaneus	1
E20/S86	16	10P	X/II/IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	5
E20/S86	16	10P	X/II/IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	4
E20/S86	16	10P	X/II/IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E20/S86	16	10P	X/II/IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S86	16	10P	X/II/IIIa	E. Archaic		Vertebrata	Indeterminate	1
E20/S86	17	10Q	X/II/IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S86	17	10Q	X/II/IIIa	E. Archaic		<i>Odocoileus</i> sp.	Tibia	1
E20/S86	17	10Q	X/II/IIIa	E. Archaic		Vertebrata	Indeterminate	13
E20/S86	18	10R	X/II	L. Paleo./E. Archaic		Mammalia (Large)	Indeterminate	1
E20/S86	18	10R	X/II	L. Paleo./E. Archaic		Mammalia (Medium)	Proximal phalange	1
E20/S86	18	10R	X/II	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S86	18	10R	X/II	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
E20/S86	19	10S	X/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E20/S86	19	10S	X/II	L. Paleo.		Vertebrata	Indeterminate	16
E20/S86	20	10T	X/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E20/S86	20	10T	X/II	L. Paleo.		Vertebrata	Indeterminate	3
E20/S86	21	10U	X	L. Paleo.		Mammalia (Medium/large)	Long bone	3
E20/S86	22	10V	X	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E20/S88	1	9A	IIIc	L. Prehist.		Artiodactyla	Astragalus	2
E20/S88	1	9A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	9
E20/S88	1	9A	IIIc	L. Prehist.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E20/S88	1	9A	IIIc	L. Prehist.		Vertebrata	Indeterminate	19
E20/S88	3	9C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	First tarsal	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Fourth carpal bone	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Metapodial	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Radial carpal bone	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Tibia	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Artiodactyla	Tooth, perm./decid. ind.	2
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Leporidae	Tibia	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Mammalia (Large)	Cranium	2
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Mammalia (Large)	Femur	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Mammalia (Large)	Indeterminate	4
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Mammalia (Large)	Long bone	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Mammalia (Medium)	Thoracic vertebra	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	28
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Mammalia (Medium/large)	Vertebra	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Testudinata	Shell fragment	1
E20/S88	3	9C	IIIc	L. Archaic	BRM1	Vertebrata	Indeterminate	204
E20/S88	4	9D	IIIc	L. Archaic	BRM1	cf. <i>Antilocapra/Odocoileus</i>	Tibia	1
E20/S88	4	9D	IIIc	L. Archaic	BRM1	Mammalia (Large)	Indeterminate	1
E20/S88	4	9D	IIIc	L. Archaic	BRM1	Mammalia (Large)	Long bone	1
E20/S88	4	9D	IIIc	L. Archaic	BRM1	Mammalia (Medium/large)	Cranium	1
E20/S88	4	9D	IIIc	L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	1
E20/S88	4	9D	IIIc	L. Archaic	BRM1	Mammalia (Medium/large)	Long bone	3
E20/S88	4	9D	IIIc	L. Archaic	BRM1	Medium/Large Vertebrata	Indeterminate	8
E20/S88	4	9D	IIIc	L. Archaic	BRM1	<i>Odocoileus</i> sp.	Fourth carpal bone	1
E20/S88	4	9D	IIIc	L. Archaic	BRM1	Vertebrata	Indeterminate	15
E20/S88	5	9E	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S88	5	9E	IIIc	L. Archaic	BRM1	Vertebrata	Indeterminate	14
E20/S88	6	9F	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Indeterminate	6
E20/S88	7	9G	IIIc	Middle/L. Archaic	BRM1	Mammalia (Large)	Indeterminate	1
E20/S88	7	9G	IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	1
E20/S88	7	9G	IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Mandible	1
E20/S88	7	9G	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Indeterminate	5
E20/S88	7	9G	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Long bone	1
E20/S88	8	9H	IIIc	Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	2
E20/S88	8	9H	IIIc	Archaic	BRM1	Vertebrata	Indeterminate	1
E20/S88	9	9I	Y/IIIc	Archaic	BRM1	<i>Odocoileus</i> sp.	Cranium	2
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	Artiodactyla	Tooth, perm./decid. ind.	2
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	Mammalia (Medium)	Metapodial	1
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	2
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	Mammalia (Medium/large)	Mandible	1
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	<i>Odocoileus</i> sp.	Cranium	1
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	<i>Odocoileus</i> sp.	Mandible	1
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	<i>Odocoileus</i> sp.	Permanent tooth	3
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	Testudinata	Pleural	1
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	Testudinata	Shell fragment	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S88	10	9J	Y/IIIb/c	Archaic	BRM1	Vertebrata	Indeterminate	12
E20/S88	12	9L	X/Y/IIIb	E. Archaic	f8	<i>Antilocapra/Onchoceros</i>	Pelvis	1
E20/S88	12	9L	X/Y/IIIb	E. Archaic	f8	cf. <i>Antilocapra/Onchoceros</i>	Pelvis	1
E20/S88	12	9L	X/Y/IIIb	E. Archaic	f8	Leporidae	Alveolar ridge fragment	1
E20/S88	12	9L	X/Y/IIIb	E. Archaic	f8	Mammalia (Large)	Long bone	1
E20/S88	12	9L	X/Y/IIIb	E. Archaic	f8	Mammalia (Medium/large)	Indeterminate	4
E20/S88	12	9L	X/Y/IIIb	E. Archaic	f8	Medium/Large Vertebrata	Indeterminate	7
E20/S88	12	9L	X/Y/IIIb	E. Archaic	f8	Vertebrata	Indeterminate	27
E20/S88	13	9M	X/IIIb	E. Archaic	f8	Leporidae	Calcaneus	1
E20/S88	13	9M	X/IIIb	E. Archaic	f8	Mammalia (Large)	Long bone	1
E20/S88	13	9M	X/IIIb	E. Archaic	f8	Mammalia (Medium/large)	Long bone	1
E20/S88	13	9M	X/IIIb	E. Archaic	f8	Medium/Large Vertebrata	Indeterminate	1
E20/S88	13	9M	X/IIIb	E. Archaic	f8	Serpentes	Dorsal vertebra	1
E20/S88	13	9M	X/IIIb	E. Archaic	f8	Small/Medium Vertebrata	Long bone	2
E20/S88	13	9M	X/IIIb	E. Archaic	f8	Testudinata	Shell fragment	3
E20/S88	13	9M	X/IIIb	E. Archaic	f8	Vertebrata	Indeterminate	12
E20/S88	15	9O	X	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E20/S88	15	9O	X	E. Archaic		Vertebrata	Indeterminate	6
E20/S88	16	9P	X	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E20/S88	18	9R	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S88	18	9R	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E20/S88	19	9S	X	L. Paleo./E. Archaic		Mammalia (Large)	Indeterminate	4
E20/S88	19	9S	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S88	19	9S	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E20/S88	20	9T	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S88	21	9U	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S88	22	9V	X	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E20/S88	22	9V	X	L. Paleo.		Vertebrata	Indeterminate	9
E20/S90	1	8A	IIIc	L. Prehist.		<i>Antilocapra/Onchoceros</i>	Proximal sesamoid	1
E20/S90	1	8A	IIIc	L. Prehist.		Artiodactyla	Proximal phalange	1
E20/S90	1	8A	IIIc	L. Prehist.		Mammalia (Large)	Indeterminate	4
E20/S90	1	8A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	10
E20/S90	1	8A	IIIc	L. Prehist.		<i>Onchoceros</i> sp.	Fused 3rd & 4th metatarsal	1
E20/S90	1	8A	IIIc	L. Prehist.		<i>Onchoceros</i> sp.	Permanent tooth	2
E20/S90	1	8A	IIIc	L. Prehist.		Vertebrata	Indeterminate	171
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Antilocapra/Onchoceros</i>	Astragalus	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Antilocapra/Onchoceros</i>	Distal phalange	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Antilocapra/Onchoceros</i>	Fused central/fourth tarsal	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Antilocapra/Onchoceros</i>	Metapodial	2
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Antilocapra/Onchoceros</i>	Middle phalange	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Antilocapra/Onchoceros</i>	Proximal phalange	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Antilocapra/Onchoceros</i>	Proximal sesamoid	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Antilocapra/Onchoceros</i>	Tibia	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Antilocapra/Onchoceros</i>	Ulnar carpal bone	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Artiodactyla	Tooth, perm./decid. ind.	3
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Kinosternidae	Peripheral	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Large)	Alveolar ridge fragment	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Large)	Cranium	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Large)	Femur	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Large)	Humerus	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Large)	Indeterminate	19
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Large)	Long bone	22
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Large)	Pelvis	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Large)	Vertebra	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Medium)	Permanent tooth	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Medium)	Tooth, perm./decid. ind.	2
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Alveolar ridge fragment	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Indeterminate	65
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Rib	2
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mustelidae	Mandible	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Mustelidae	Permanent tooth	3
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Onchoceros</i> sp.	Calcaneus	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Onchoceros</i> sp.	Distal phalange	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Onchoceros</i> sp.	Middle phalange	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Onchoceros</i> sp.	Permanent tooth	6
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Onchoceros</i> sp.	Proximal phalange	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Testudinata	Shell fragment	4
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Vertebrata	Indeterminate	490
E20/S90	2	8B	IIIc	L. Archaic/L. Prehist.	BRM1	Vertebrata	Long bone	1
E20/S90	3	8C	IIIc	L. Archaic	BRM1	<i>Antilocapra americana</i>	Fused 3rd & 4th metatarsal	1
E20/S90	3	8C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S90	3	8C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
E20/S90	3	8C	IIIc	L. Archaic	BRM1	Emydidae	Neural	1
E20/S90	3	8C	IIIc	L. Archaic	BRM1	Mammalia (Large)	Femur	1
E20/S90	3	8C	IIIc	L. Archaic	BRM1	Mammalia (Large)	Indeterminate	2
E20/S90	3	8C	IIIc	L. Archaic	BRM1	Mammalia (Large)	Long bone	3
E20/S90	3	8C	IIIc	L. Archaic	BRM1	Mammalia (Large)	Rib	1
E20/S90	3	8C	IIIc	L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	11
E20/S90	3	8C	IIIc	L. Archaic	BRM1	<i>Odocoileus</i> sp.	Antler	1
E20/S90	3	8C	IIIc	L. Archaic	BRM1	Vertebrata	Indeterminate	65
E20/S90	3	8C	IIIc	L. Archaic	BRM1	Vertebrata	Long bone	1
E20/S90	4	8D	IIIc	L. Archaic	BRM1	Artiodactyla	Tooth, perm./decid. ind.	1
E20/S90	4	8D	IIIc	L. Archaic	BRM1	Mammalia (Large)	Cranium	1
E20/S90	4	8D	IIIc	L. Archaic	BRM1	Vertebrata	Indeterminate	12
E20/S90	5	8E	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S90	5	8E	IIIc	L. Archaic	BRM1	Vertebrata	Indeterminate	1
E20/S90	8	8H	IIIc	Archaic	BRM1	Vertebrata	Indeterminate	1
E20/S90	9	8I	Y/IIIc	Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	3
E20/S90	9	8I	Y/IIIc	Archaic	BRM1	Vertebrata	Indeterminate	2
E20/S90	9	8I	Y/IIIc	Archaic	BRM1	Vertebrata	Phalange	1
E20/S90	10	8J	Y/IIIc	Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	1
E20/S90	10	8J	Y/IIIc	Archaic	BRM1	Vertebrata	Indeterminate	5
E20/S90	11	8K	Y	E. Archaic		Colubridae	Dorsal vertebra	4
E20/S90	11	8K	Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S90	11	8K	Y	E. Archaic		Vertebrata	Indeterminate	2
E20/S90	12	8L	X/Y	E. Archaic	f8	Mammalia (Medium/large)	Long bone	1
E20/S90	12	8L	X/Y	E. Archaic	f8	Vertebrata	Indeterminate	4
E20/S90	13	8M	X/Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S90	13	8M	X/Y	E. Archaic		Mammalia (Medium/large)	Rib	1
E20/S90	13	8M	X/Y	E. Archaic		Small/Medium Vertebrata	Long bone	1
E20/S90	13	8M	X/Y	E. Archaic		Vertebrata	Indeterminate	1
E20/S90	14	8N	X	E. Archaic		Mammalia (Medium/large)	Middle phalange	1
E20/S90	15	8O	X	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S90	15	8O	X	E. Archaic		Vertebrata	Indeterminate	8
E20/S90	16	8P	X	E. Archaic	f17	Mammalia (Medium)	Femur	1
E20/S90	16	8P	X	E. Archaic	f17	Mammalia (Medium/large)	Indeterminate	3
E20/S90	16	8P	X	E. Archaic	f17	Mammalia (Medium/large)	Rib	1
E20/S90	16	8P	X	E. Archaic	f17	Rodentia (Small/Medium)	Femur	1
E20/S90	16	8P	X	E. Archaic	f17	Vertebrata	Indeterminate	2
E20/S90	17	8Q	X	L. Paleo./E. Archaic		<i>Antilocapra/Odocoileus</i>	Phalange	1
E20/S90	17	8Q	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
E20/S90	18	8R	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S90	18	8R	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E20/S90	19	8S	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S90	19	8S	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused central/fourth tarsal	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Middle phalange	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Phalange	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Tibia	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Ulna	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	3
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Large)	Long bone	2
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Large)	Vertebra	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Medium)	Proximal phalange	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	23
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Antler	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		<i>Terrapene</i> sp.	Pygal	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		Testudinata	Shell fragment	1
E20/S92	1	7A	IIIc/POT	Archaic/L. Prehist.		Vertebrata	Indeterminate	117
E20/S92	2	7B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Large)	Indeterminate	1
E20/S92	2	7B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Large)	Tooth, perm./decid. ind.	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S92	2	7B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Indeterminate	3
E20/S92	2	7B	IIIc/POT	Archaic/L. Prehist.	BRM1	Vertebrata	Indeterminate	13
E20/S92	3	7C	IIIc/POT	Archaic	BRM1	Testudinata	Shell fragment	1
E20/S92	3	7C	IIIc/POT	Archaic	BRM1	Vertebrata	Indeterminate	3
E20/S92	6	7F	IIIc/POT	Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	2
E20/S92	8	7H	IIIc	Archaic	BRM1	Mammalia (Large)	Long bone	1
E20/S92	9	7I	Y/IIIc	Archaic		Lepus californicus	Calcaneus	1
E20/S92	11	7K	Y	E. Archaic		Mammalia (Large)	Long bone	1
E20/S92	11	7K	Y	E. Archaic		Mammalia (Small)	Rib	1
E20/S92	11	7K	Y	E. Archaic		Vertebrata	Indeterminate	10
E20/S92	13	7M	Y	E. Archaic		Vertebrata	Indeterminate	1
E20/S92	14	7N	X/Y	E. Archaic		Medium/Large Vertebrata	Long bone	1
E20/S94	1	6A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S94	1	6A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Ulnar carpal bone	1
E20/S94	1	6A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Large)	Vertebra	1
E20/S94	1	6A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	20
E20/S94	1	6A	IIIc/POT	Archaic/L. Prehist.		Vertebrata	Indeterminate	124
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	4
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Antilocapra/Odocoileus</i>	Metapodial	1
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Antilocapra/Odocoileus</i>	Middle phalange	1
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Antilocapra/Odocoileus</i>	Ulnar carpal bone	1
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Large)	Long bone	1
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Indeterminate	6
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Long bone	1
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Odocoileus</i> sp.	Middle phalange	1
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	Testudinata	Shell fragment	1
E20/S94	2	6B	IIIc/POT	Archaic/L. Prehist.	BRM1	Vertebrata	Indeterminate	41
E20/S94	3	6C	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Indeterminate	1
E20/S94	3	6C	IIIc/POT	Archaic/L. Prehist.	BRM1	Vertebrata	Indeterminate	7
E20/S94	4	6D	IIIc/POT	Archaic	BRM1	cf. <i>Odocoileus</i> sp.	Intermediate carpal bone	1
E20/S94	4	6D	IIIc/POT	Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	2
E20/S94	4	6D	IIIc/POT	Archaic	BRM1	Vertebrata	Indeterminate	5
E20/S94	5	6E	IIIc	Archaic	BRM1	Vertebrata	Indeterminate	2
E20/S94	6	6F	IIIc	Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E20/S94	6	6F	IIIc	Archaic	BRM1	Mammalia (Large)	Indeterminate	1
E20/S94	6	6F	IIIc	Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	2
E20/S94	6	6F	IIIc	Archaic	BRM1	Vertebrata	Indeterminate	3
E20/S94	7	6G	IIIc	Archaic		Vertebrata	Indeterminate	2
E20/S94	8	6H	Y/IIIc	Archaic		Vertebrata	Indeterminate	1
E20/S94	9	6I	Y/IIIc	Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S94	9	6I	Y/IIIc	Archaic		Vertebrata	Indeterminate	19
E20/S94	10	6J	Y	E. Archaic		Mammalia (Large)	Cranium	1
E20/S94	10	6J	Y	E. Archaic		Vertebrata	Indeterminate	1
E20/S94	11	6K	Y	E. Archaic	f4	Vertebrata	Indeterminate	5
E20/S94	12	6L	X/Y	E. Archaic	f4	Vertebrata	Indeterminate	4
E20/S94	13	6M	X/Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S94	13	6M	X/Y	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S94	13	6M	X/Y	E. Archaic		Vertebrata	Indeterminate	5
E20/S94	14	6N	X/Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S94	14	6N	X/Y	E. Archaic		Mammalia (Medium/large)	Long bone	3
E20/S94	14	6N	X/Y	E. Archaic		Medium/Large Vertebrata	Indeterminate	5
E20/S94	14	6N	X/Y	E. Archaic		Vertebrata	Indeterminate	6
E20/S94	15	6O	X	E. Archaic		Vertebrata	Indeterminate	6
E20/S94	16	6P	X	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S94	16	6P	X	E. Archaic		Mammalia (Medium/large)	Long bone	6
E20/S94	16	6P	X	E. Archaic		Medium/Large Vertebrata	Indeterminate	4
E20/S94	16	6P	X	E. Archaic		Medium/Large Vertebrata	Long bone	1
E20/S94	16	6P	X	E. Archaic		Vertebrata	Indeterminate	11
E20/S94	18	6R	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	First tarsal	1
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Intermediate carpal bone	1
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Tibia	1
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		Artiodactyla	Tooth, perm./decid. ind.	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	4
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Large)	Vertebra	1
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	34
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Proximal phalange	1
E20/S96	1	5A	IIIc/POT	Archaic/L. Prehist.		Vertebrata	Indeterminate	160
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Antilocapra/Odocoileus</i>	Phalange	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Antilocapra/Odocoileus</i>	Ulna	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Artiodactyla	Tooth, perm./decid. ind.	7
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Large)	Indeterminate	5
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Large)	Long bone	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Large)	Rib	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Medium)	Middle phalange	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Cranium	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Indeterminate	17
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Mammalia (Medium/large)	Thoracic vertebra	2
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	<i>Odocoileus</i> sp.	Metapodial of paradigit	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Serpentes	Dorsal vertebra	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Testudinata	Shell fragment	1
E20/S96	2	5B	IIIc/POT	Archaic/L. Prehist.	BRM1	Vertebrata	Indeterminate	111
E20/S96	3	5C	IIIc/POT	Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Metapodial	1
E20/S96	3	5C	IIIc/POT	Archaic	BRM1	Mammalia (Large)	Long bone	1
E20/S96	3	5C	IIIc/POT	Archaic	BRM1	Medium/Large Vertebrata	Indeterminate	1
E20/S96	3	5C	IIIc/POT	Archaic	BRM1	Testudinata	Peripheral	1
E20/S96	4	5D	IIIc/POT	Archaic	BRM1	Vertebrata	Indeterminate	2
E20/S96	5	5E	IIIc/POT	Archaic	BRM1	Vertebrata	Indeterminate	4
E20/S96	6	5F	IIIc/POT	Archaic		Vertebrata	Indeterminate	1
E20/S96	7	5G	IIIc	Archaic		Mammalia (Large)	Long bone	1
E20/S96	7	5G	IIIc	Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S96	7	5G	IIIc	Archaic		Vertebrata	Indeterminate	10
E20/S96	10	5J	Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S96	10	5J	Y	E. Archaic		Vertebrata	Indeterminate	5
E20/S96	11	5K	Y	E. Archaic		Mammalia (Large)	Indeterminate	1
E20/S96	12	5L	X/Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S96	12	5L	X/Y	E. Archaic		Mammalia (Medium/large)	Long bone	1
E20/S96	12	5L	X/Y	E. Archaic		Vertebrata	Indeterminate	4
E20/S96	13	5M	X/Y	E. Archaic		Mammalia (Large)	Long bone	1
E20/S96	13	5M	X/Y	E. Archaic		Vertebrata	Indeterminate	3
E20/S96	14	5N	X	E. Archaic		Mammalia (Small)	Femur	1
E20/S96	14	5N	X	E. Archaic		Vertebrata	Indeterminate	1
E20/S96	15	5O	X	E. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S96	15	5O	X	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E20/S96	15	5O	X	E. Archaic		Small/Medium Vertebrata	Long bone	3
E20/S96	15	5O	X	E. Archaic		Vertebrata	Indeterminate	15
E20/S96	16	5P	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E20/S98	1	3A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Intermediate carpal bone	1
E20/S98	1	3A	IIIc	L. Prehist.		Mammalia (Large)	Indeterminate	1
E20/S98	1	3A	IIIc	L. Prehist.		Mammalia (Large)	Long bone	1
E20/S98	1	3A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	37
E20/S98	1	3A	IIIc	L. Prehist.		Mammalia (Medium/large)	Long bone	8
E20/S98	1	3A	IIIc	L. Prehist.		Mammalia (Medium/large)	Rib	1
E20/S98	1	3A	IIIc	L. Prehist.		<i>Odocoileus</i> sp.	Antler	2
E20/S98	1	3A	IIIc	L. Prehist.		<i>Odocoileus</i> sp.	Proximal phalange	1
E20/S98	1	3A	IIIc	L. Prehist.		Vertebrata	Indeterminate	71
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	3
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused second & third tarsal	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Metapodial	2
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Radius	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Artiodactyla	Phalange	4
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Artiodactyla	Tooth, perm./decid. ind.	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Canis</i> sp.	Cranium	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Canis</i> sp.	Permanent tooth	3
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Humerus	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	2
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Long bone	9
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Mandible	2
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	44
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Distal phalange	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Middle phalange	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Testudinata	Peripheral	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Testudinata	Shell fragment	1
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	193
E20/S98	2	3B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Long bone	3
E20/S98	3	3C	IIIc	L. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Metapodial	1
E20/S98	3	3C	IIIc	L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	3
E20/S98	3	3C	IIIc	L. Archaic	BRM1	Vertebrata	Indeterminate	4
E20/S98	5	3E	IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	1
E20/S98	5	3E	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Indeterminate	2
E20/S98	6	3F	Y/IIIc	Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E20/S98	7	3G	Y/IIIc	Archaic		Vertebrata	Indeterminate	1
E20/S98	8	3H	Y/IIIc	E. Archaic		Mammalia (Large)	Indeterminate	1
E20/S98	10	3J	Y	E. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E20/S98	10	3J	Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S98	10	3J	Y	E. Archaic		Vertebrata	Indeterminate	1
E20/S98	11	3K	X/Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E20/S98	11	3K	X/Y	E. Archaic		Vertebrata	Indeterminate	1
E20/S98	13	3M	X	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S98	13	3M	X	E. Archaic		Vertebrata	Indeterminate	1
E20/S98	15	3O	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S98	15	3O	X	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	1
E20/S98	15	3O	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	8
E20/S100	1	1A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E20/S100	1	1A	IIIc	L. Prehist.		Mammalia (Large)	Indeterminate	1
E20/S100	1	1A	IIIc	L. Prehist.		Mammalia (Large)	Long bone	3
E20/S100	1	1A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	1
E20/S100	1	1A	IIIc	L. Prehist.		Vertebrata	Indeterminate	35
E20/S100	2	1B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	7
E20/S100	2	1B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	10
E20/S100	3	1C	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E20/S100	3	1C	IIIc	L. Archaic		Mammalia (Large)	Femur	2
E20/S100	3	1C	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
E20/S100	3	1C	IIIc	L. Archaic		Mammalia (Large)	Long bone	3
E20/S100	3	1C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	5
E20/S100	3	1C	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Fused 3rd & 4th metacarpal	1
E20/S100	3	1C	IIIc	L. Archaic		Vertebrata	Indeterminate	3
E20/S100	7	1G	Y	E. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E20/S100	7	1G	Y	E. Archaic		Vertebrata	Indeterminate	6
E20/S100	10	1J	Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E20/S100	12	1L	X/Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E20/S100	12	1L	X/Y	E. Archaic		Vertebrata	Indeterminate	8
E22/S72	15	27O	IIIa/b	E. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E22/S72	15	27O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E22/S72	15	27O	IIIa/b	E. Archaic		Medium/Large Vertebrata	Long bone	1
E22/S72	15	27O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	1
E22/S72	15	27O	IIIa/b	E. Archaic		Vertebrata	Long bone	1
E22/S72	16B	27P2	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S72	17A	27Q1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S72	17A	27Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E22/S72	17B	27Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E22/S72	18A	27R1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S72	18A	27R1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E22/S72	18B	27R2	IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
E22/S72	18B	27R2	IIIa	E. Archaic		Vertebrata	Indeterminate	6
E22/S72	18B	27R2	IIIa	E. Archaic		Vertebrata	Long bone	1
E22/S72	19A	27S1	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E22/S72	19B	27S2B	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Tooth, perm./decid. ind.	3
E22/S72	19B	27S2D	IIIa	E. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E22/S72	19B	27S2D	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E22/S72	20A	27T1	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S72	20A	27T1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E22/S72	20A	27T1A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S72	20A	27T1B	II/IIIa	L. Paleo./E. Archaic		Leporidae	Tibia	1
E22/S72	20A	27T1B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S72	20A	27T1B	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S72	20A	27T1B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E22/S72	20A	27T1D	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S72	20A	27T1D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
E22/S72	20B	27T2A	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E22/S72	20B	27T2B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S72	20B	27T2B	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S72	20B	27T2B	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
E22/S72	20B	27T2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S72	21A	27U1B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S72	21B	27U2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S72	21B	27U2C	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S72	21B	27U2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	21B	27U2D	II	L. Paleo.		Vertebrata	Indeterminate	4
E22/S72	22A	27V1A	II	L. Paleo.		Mammalia (Large)	Indeterminate	1
E22/S72	22A	27V1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	22A	27V1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	6
E22/S72	22A	27V1D	II	L. Paleo.		Vertebrata	Indeterminate	7
E22/S72	22B	27V2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S72	22B	27V2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	22B	27V2B	II	L. Paleo.		Carnivora	Permanent tooth	1
E22/S72	22B	27V2B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E22/S72	22B	27V2B	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	22B	27V2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	23A	27W1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	23B	27W2A	II	L. Paleo.		Vertebrata	Indeterminate	7
E22/S72	23B	27W2B	II	L. Paleo.		Carnivora	Tooth, perm./decid. ind.	1
E22/S72	23B	27W2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	23B	27W2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	24A	27X1A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S72	24A	27X1A	II	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
E22/S72	24A	27X1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	24A	27X1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	24A	27X1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S72	24A	27X1B	II	L. Paleo.		Vertebrata	Indeterminate	6
E22/S72	24A	27X1C	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E22/S72	24A	27X1D	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	24B	27X2B	II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E22/S72	24B	27X2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	24B	27X2D	II	L. Paleo.		Vertebrata	Indeterminate	7
E22/S72	25A	27Y1B	II	L. Paleo.		Vertebrata	Indeterminate	4
E22/S72	25B	27Y2B	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	26A	27Z1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	26A	27Z1B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S72	26A	27Z1D	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S72	26B	27Z2A	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S72	26B	27Z2A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S72	26B	27Z2A	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S72	26B	27Z2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	27A	27AA1A	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S72	27A	27AA1B	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	27A	27AA1C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	27A	27AA1C	II	L. Paleo.		Vertebrata	Indeterminate	9
E22/S72	27A	27AA1C	II	L. Paleo.		Vertebrata	Long bone	1
E22/S72	27A	27AA1D	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	27A	27AA1D	II	L. Paleo.		Vertebrata	Long bone	1
E22/S72	27B	27AA2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	27B	27AA2B	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S72	27B	27AA2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	27B	27AA2D	II	L. Paleo.		Mammalia (Medium)	Metapodial	1
E22/S72	27B	27AA2D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E22/S72	27B	27AA2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	28A	27BB1A	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	3

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S72	28A	27BB1A	Isi-c/II	L. Paleo.		Medium vertebrate, class ind.	Proximal phalange	1
E22/S72	28A	27BB1A	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E22/S72	28A	27BB1A	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S72	28A	27BB1A	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	23
E22/S72	28A	27BB1B	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S72	28A	27BB1D	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S72	28B	27BB2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	28B	27BB2B	Isi-c	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Middle phalange	1
E22/S72	28B	27BB2B	Isi-c	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Phalange	1
E22/S72	28B	27BB2B	Isi-c	L. Paleo.		Mammalia (Medium)	Astragalus	1
E22/S72	28B	27BB2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E22/S72	28B	27BB2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E22/S72	28B	27BB2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	50
E22/S72	28B	27BB2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	28B	27BB2D	Isi-c	L. Paleo.		Emydidae	Peripheral	1
E22/S72	28B	27BB2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	28B	27BB2D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S72	28B	27BB2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
E22/S72	29A	27CC1A	Isi-c	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S72	29A	27CC1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	29A	27CC1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S72	29A	27CC1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S72	29A	27CC1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Caudal vertebra	1
E22/S72	29A	27CC1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	29A	27CC1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S72	29A	27CC1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	22
E22/S72	29A	27CC1C	Isi-c	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E22/S72	29A	27CC1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S72	29A	27CC1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S72	29A	27CC1D	Isi-c	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E22/S72	29A	27CC1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Rib	1
E22/S72	29A	27CC1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E22/S72	29A	27CC1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	24
E22/S72	29B	27CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	29B	27CC2B	Isi-c	L. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	3
E22/S72	29B	27CC2B	Isi-c	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S72	29B	27CC2B	Isi-c	L. Paleo.		Mammalia (Medium)	Metapodial	1
E22/S72	29B	27CC2B	Isi-c	L. Paleo.		Mammalia (Medium)	Middle phalange	1
E22/S72	29B	27CC2B	Isi-c	L. Paleo.		Mammalia (Medium)	Rib	1
E22/S72	29B	27CC2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	3
E22/S72	29B	27CC2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E22/S72	29B	27CC2B	Isi-c	L. Paleo.		<i>Odocoileus</i> sp.	Permanent tooth	1
E22/S72	29B	27CC2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	45
E22/S72	29B	27CC2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
E22/S72	29B	27CC2D	Isi-c	L. Paleo.		<i>Lepus californicus</i>	Calcaneus	1
E22/S72	29B	27CC2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	29B	27CC2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E22/S72	29B	27CC2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	60
E22/S72	30A	27DD1A	Isi-c	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S72	30A	27DD1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	9
E22/S72	30A	27DD1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S72	30A	27DD1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	30A	27DD1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	12
E22/S72	30A	27DD1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S72	30A	27DD1D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E22/S72	30A	27DD1D	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E22/S72	30A	27DD1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E22/S72	30B	27DD2A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	30B	27DD2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S72	30B	27DD2C	Isi-c	L. Paleo.		Mammalia	Indeterminate	1
E22/S72	30B	27DD2C	Isi-c	L. Paleo.		Testudinata	Peripheral	1
E22/S72	30B	27DD2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S72	31A	27EE1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	31A	27EE1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	31A	27EE1B	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S72	31A	27EE1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E22/S72	31A	27EE1D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S72	31A	27EE1D	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E22/S72	31A	27EE1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S72	31B	27EE2A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E22/S72	31B	27EE2A	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E22/S72	31B	27EE2A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E22/S72	31B	27EE2C	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E22/S72	31B	27EE2D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E22/S72	32A	27FF1A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
E22/S72	32A	27FF1A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E22/S72	32A	27FF1A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S72	32B	27FF2A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S72	32B	27FF2B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
E22/S72	32B	27FF2C	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E22/S72	32B	27FF2C	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E22/S72	33A	27GG1B	Icl/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Ulna	1
E22/S72	33A	27GG1B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E22/S72	33A	27GG1C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E22/S72	33A	27GG1D	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E22/S72	34A	27HH1A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E22/S72	34B	27HH2C	Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S72	35A	27III A	Isi/Icl	E. Paleo.		<i>Odocoileus</i> sp.	Middle phalange	1
E22/S72	35A	27III A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E22/S72	35A	27III C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S72	35A	27III C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	13
E22/S72	35B	27II2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E22/S72	36B	27JJ2D	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E22/S72	36B	27JJ2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	10
E22/S72	37A	27KK1A	Isi	E. Paleo.		Vertebrata	Indeterminate	14
E22/S72	37A	27KK1C	Isi	E. Paleo.		Mammalia (Small)	Tooth, perm./decid. ind.	1
E22/S72	37A	27KK1D	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S72	37A	27KK1D	Isi	E. Paleo.		Vertebrata	Indeterminate	7
E22/S72	37B	27KK2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	10
E22/S72	37B	27KK2B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	1
E22/S72	37B	27KK2D	Igl/Isi	E. Paleo.		<i>Sternotherus</i> sp.	Hyoplastron	1
E22/S72	38A	27LL1A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S72	38A	27LL1A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	3
E22/S72	38A	27LL1C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	12
E22/S72	38A	27LL1D	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S72	38B	27LL2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	16
E22/S72	38B	27LL2B	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E22/S72	38B	27LL2C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	1
E22/S74	15	26O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	1
E22/S74	16B	26P2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S74	16B	26P2	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	5
E22/S74	17A	26Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E22/S74	17B	26Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	13
E22/S74	18A	26R1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S74	18A	26R1	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S74	18A	26R1	IIIa	E. Archaic		Vertebrata	Indeterminate	2
E22/S74	18B	26R2	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E22/S74	19A	26S1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	9
E22/S74	19B	26S2A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E22/S74	19B	26S2D	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	1
E22/S74	19B	26S2D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S74	20A	26T1A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S74	20A	26T1B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E22/S74	20A	26T1C	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S74	20A	26T1C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E22/S74	20A	26T1D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S74	20B	26T2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	20B	26T2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	20B	26T2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E22/S74	20B	26T2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	20B	26T2D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S74	20B	26T2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	20B	26T2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	21A	26U1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S74	21A	26U1B	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	21A	26U1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	21B	26U2B	II	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S74	21B	26U2B	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S74	21B	26U2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	21B	26U2C	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	21B	26U2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	22A	26V1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E22/S74	22A	26V1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	22A	26V1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	22A	26V1D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S74	22B	26V2C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S74	22B	26V2C	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	22B	26V2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	23A	26W1A	II	L. Paleo.		Vertebrata	Indeterminate	4
E22/S74	23A	26W1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	23A	26W1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	23B	26W2A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E22/S74	23B	26W2A	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	23B	26W2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	23B	26W2B	II	L. Paleo.		Mammalia (Small/medium)	Alveolar ridge fragment	1
E22/S74	23B	26W2C	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	24A	26X1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	24A	26X1B	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	24A	26X1D	II	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S74	24B	26X2B	II	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S74	24B	26X2C	II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E22/S74	24B	26X2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	25A	26Y1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	25A	26Y1C	II	L. Paleo.		Mammalia (Medium)	Middle phalange	1
E22/S74	25A	26Y1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	25A	26Y1D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	25A	26Y1D	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	25B	26Y2A	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	25B	26Y2A	Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S74	25B	26Y2C	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	25B	26Y2D	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	26A	26Z1A	Id/II	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S74	26A	26Z1B	Id/II	L. Paleo.		Vertebrata	Indeterminate	4
E22/S74	26A	26Z1C	Id/II	L. Paleo.		Vertebrata	Indeterminate	5
E22/S74	26A	26Z1D	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	26A	26Z1D	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S74	26A	26Z1D	Id/II	L. Paleo.		Vertebrata	Indeterminate	9
E22/S74	26B	26Z2C	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Vertebra	1
E22/S74	26B	26Z2C	Isi-c/Id/II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E22/S74	26B	26Z2C	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	5
E22/S74	26B	26Z2D	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S74	27A	26AA1C	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	27A	26AA1C	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	13
E22/S74	27A	26AA1D	Isi-c/II	L. Paleo.		Mammalia (Medium)	Phalange	1
E22/S74	27A	26AA1D	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	27A	26AA1D	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	21
E22/S74	27B	26AA2	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	27B	26AA2	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S74	27B	26AA2	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	15
E22/S74	27B	26AA2A	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S74	27B	26AA2A	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	10
E22/S74	27B	26AA2B	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	27B	26AA2B	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	27B	26AA2C	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	27B	26AA2C	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S74	27B	26AA2C	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	4
E22/S74	28A	26BB1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E22/S74	28A	26BB1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E22/S74	28A	26BB1B	Isi-c	L. Paleo.		Vertebrata	Metapodial	1
E22/S74	28A	26BB1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E22/S74	28A	26BB1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S74	28A	26BB1D	Isi-c	L. Paleo.		Mammalia (Medium)	Distal phalange	1
E22/S74	28B	26BB2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	19
E22/S74	28B	26BB2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S74	28B	26BB2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S74	29A	26CC1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S74	29A	26CC1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	31
E22/S74	29A	26CC1A	Isi-c	L. Paleo.		Vertebrata	Vertebra	2
E22/S74	29A	26CC1B	Isi-c	L. Paleo.		Mammalia (Medium)	Middle phalange	1
E22/S74	29A	26CC1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	11
E22/S74	29A	26CC1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7
E22/S74	29B	26CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S74	29B	26CC2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	29B	26CC2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	29B	26CC2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S74	29B	26CC2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	10
E22/S74	29B	26CC2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	30A	26DD1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E22/S74	30A	26DD1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E22/S74	30A	26DD1C	Isi-c	L. Paleo.		Leporidae	Permanent tooth	1
E22/S74	30A	26DD1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Caudal vertebra	1
E22/S74	30A	26DD1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	22
E22/S74	30A	26DD1C	Isi-c	L. Paleo.		Vertebrata	Phalange	1
E22/S74	30A	26DD1D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	30A	26DD1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S74	30B	26DD2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	12
E22/S74	30B	26DD2B	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S74	30B	26DD2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S74	30B	26DD2D	Isi-c	L. Paleo.		<i>Odocoileus</i> sp.	Proximal phalange	1
E22/S74	30B	26DD2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	21
E22/S74	31A	26EE1B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E22/S74	31B	26EE2A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E22/S74	31B	26EE2A	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	5
E22/S74	31B	26EE2B	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E22/S74	31B	26EE2C	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E22/S74	31B	26EE2C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	10
E22/S74	32A	26FF1A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S74	32A	26FF1B	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
E22/S74	32A	26FF1B	Icl/Isi-c	Paleoindian		Testudinata	Shell fragment	1
E22/S74	32A	26FF1B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S74	32A	26FF1C	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E22/S74	32A	26FF1C	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E22/S74	32A	26FF1C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S74	32B	26FF2C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E22/S74	33A	26GG1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S74	33A	26GG1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	6
E22/S74	33A	26GG1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	33A	26GG1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E22/S74	33A	26GG1C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S74	33A	26GG1D	Isi/Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S74	33B	26GG2C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E22/S74	33B	26GG2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	9
E22/S74	34A	26HH1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E22/S74	34A	26HH1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E22/S74	34B	26HH2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E22/S74	34B	26HH2C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	34B	26HH2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E22/S74	35A	26II1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E22/S74	35A	26II1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E22/S74	35B	26II2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	6
E22/S74	36A	26JJ1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E22/S74	36A	26JJ1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E22/S74	36A	26JJ1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E22/S74	36B	26JJ2B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	1
E22/S74	36B	26JJ2D	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	25
E22/S74	37A	26KK1A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	1
E22/S74	37A	26KK1B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	3
E22/S74	37A	26KK1D	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	13

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S74	37B	26KK2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	5
E22/S74	37B	26KK2B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	20
E22/S74	37B	26KK2C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	1
E22/S74	37B	26KK2D	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	37B	26KK2D	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	10
E22/S74	38A	26LL1A	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	38A	26LL1B	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S74	38A	26LL1B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	15
E22/S74	38A	26LL1C	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S74	38A	26LL1C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	4
E22/S74	38B	26LL2A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	16A	25P1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E22/S76	16B	25P2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S76	16B	25P2	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E22/S76	17A	25Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E22/S76	17B	25Q2	IIIa	E. Archaic		Testudinata	Shell fragment	1
E22/S76	17B	25Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	4
E22/S76	17B	25Q2	IIIa	E. Archaic		Vertebrata	Long bone	1
E22/S76	18A	25R1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E22/S76	18B	25R2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S76	18B	25R2	IIIa	E. Archaic		Vertebrata	Indeterminate	11
E22/S76	18B	25R2	IIIa	E. Archaic		Vertebrata	Long bone	1
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Large)	Indeterminate	1
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Large)	Long bone	1
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Mandible	1
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Alveolar ridge fragment	2
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Vertebra	1
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	4
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Rodentia (Medium)	Humerus	1
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
E22/S76	19A	25S1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
E22/S76	19B	25S2B	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E22/S76	19B	25S2B	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	4
E22/S76	19B	25S2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E22/S76	20A	25T1B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	6
E22/S76	20A	25T1B	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E22/S76	20A	25T1C	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E22/S76	20A	25T1D	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E22/S76	20A	25T1D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E22/S76	20B	25T2A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	20B	25T2A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S76	20B	25T2B	II	L. Paleo.		Vertebrata	Indeterminate	5
E22/S76	20B	25T2C	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	21A	25U1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	21A	25U1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E22/S76	21A	25U1B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E22/S76	21A	25U1B	II	L. Paleo.		Vertebrata	Indeterminate	10
E22/S76	21A	25U1C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E22/S76	21A	25U1C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S76	21A	25U1C	II	L. Paleo.		Vertebrata	Indeterminate	5
E22/S76	21B	25U2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	21B	25U2B	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S76	21B	25U2C	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S76	21B	25U2D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	21B	25U2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	22A	25V1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	22A	25V1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	22B	25V2A	II	L. Paleo.		Mammalia (Medium)	Radius	1
E22/S76	22B	25V2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	22B	25V2B	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S76	22B	25V2C	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	23A	25W1A	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S76	23A	25W1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	23A	25W1B	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E22/S76	23A	25W1B	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	23A	25W1C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S76	23A	25W1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	23A	25W1D	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Phalange	1
E22/S76	23A	25W1D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	23A	25W1D	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	23B	25W2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	23B	25W2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E22/S76	23B	25W2D	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	24A	25X1A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	24A	25X1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	24A	25X1D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	24B	25X2A	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	24B	25X2B	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	24B	25X2B	Id/II	L. Paleo.		Vertebrata	Indeterminate	7
E22/S76	24B	25X2C	Id/II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E22/S76	24B	25X2D	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	24B	25X2D	Id/II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	4
E22/S76	25A	25Y1A	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	25A	25Y1B	Id/II	L. Paleo.		Vertebrata	Indeterminate	6
E22/S76	25A	25Y1C	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	25A	25Y1D	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S76	25A	25Y1D	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	25B	25Y2A	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	25B	25Y2A	Id/II	L. Paleo.		Vertebrata	Indeterminate	9
E22/S76	25B	25Y2B	Id/II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E22/S76	25B	25Y2B	Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	25B	25Y2C	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	25B	25Y2D	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E22/S76	25B	25Y2D	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	26A	25Z1A	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S76	26A	25Z1A	Id/II	L. Paleo.		Vertebrata	Indeterminate	7
E22/S76	26A	25Z1B	Id/II	L. Paleo.		Mammalia (Large)	Long bone	2
E22/S76	26A	25Z1B	Id/II	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E22/S76	26A	25Z1B	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	26A	25Z1B	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	26A	25Z1B	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	26A	25Z1B	Id/II	L. Paleo.		Vertebrata	Indeterminate	10
E22/S76	26A	25Z1C	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	26A	25Z1C	Id/II	L. Paleo.		Vertebrata	Indeterminate	5
E22/S76	26A	25Z1D	Id/II	L. Paleo.		cf. <i>Canis</i> sp.	Astragalus	1
E22/S76	26A	25Z1D	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	26A	25Z1D	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S76	26A	25Z1D	Id/II	L. Paleo.		Vertebrata	Indeterminate	8
E22/S76	26B	25Z2	Isi-c/Id/II	L. Paleo.		Mammalia (Large)	Indeterminate	1
E22/S76	26B	25Z2	Isi-c/Id/II	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S76	26B	25Z2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium)	Caudal vertebra	1
E22/S76	26B	25Z2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E22/S76	26B	25Z2	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	26B	25Z2	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E22/S76	26B	25Z2	Isi-c/Id/II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E22/S76	26B	25Z2	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	44
E22/S76	26B	25Z2A	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	26B	25Z2B	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E22/S76	26B	25Z2B	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	26B	25Z2C	Isi-c/Id/II	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S76	26B	25Z2C	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	26B	25Z2C	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S76	26B	25Z2C	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	26B	25Z2D	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	27A	25AA1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S76	27A	25AA1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E22/S76	27A	25AA1B	Isi-c	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E22/S76	27A	25AA1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	27A	25AA1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	11
E22/S76	27A	25AA1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S76	27A	25AA1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E22/S76	27A	25AA1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7
E22/S76	27B	25AA2A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S76	27B	25AA2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E22/S76	27B	25AA2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	27B	25AA2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	29
E22/S76	27B	25AA2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	27B	25AA2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	27B	25AA2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	27B	25AA2C	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E22/S76	28A	25BB1A	Isi-c	L. Paleo.		Carnivora	Permanent tooth	1
E22/S76	28A	25BB1A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E22/S76	28A	25BB1A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	3
E22/S76	28A	25BB1A	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S76	28A	25BB1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E22/S76	28A	25BB1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	28A	25BB1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E22/S76	28A	25BB1B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E22/S76	28A	25BB1B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S76	28A	25BB1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	12
E22/S76	28A	25BB1C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	28A	25BB1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S76	28B	25BB2A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	28B	25BB2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E22/S76	28B	25BB2B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	28B	25BB2B	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
E22/S76	28B	25BB2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E22/S76	28B	25BB2C	Isi-c	L. Paleo.		<i>Odocoileus</i> sp.	Mandible	1
E22/S76	28B	25BB2C	Isi-c	L. Paleo.		<i>Odocoileus</i> sp.	Permanent tooth	2
E22/S76	28B	25BB2C	Isi-c	L. Paleo.		Rodentia (Medium)	Humerus	1
E22/S76	28B	25BB2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
E22/S76	28B	25BB2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	28B	25BB2D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E22/S76	29A	25CC1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S76	29A	25CC1C	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E22/S76	29A	25CC1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	29B	25CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	29B	25CC2A	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E22/S76	29B	25CC2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S76	29B	25CC2B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E22/S76	29B	25CC2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E22/S76	30A	25DD1A	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S76	30A	25DD1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S76	30A	25DD1B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	30A	25DD1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S76	30A	25DD1C	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E22/S76	30A	25DD1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S76	30B	25DD2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S76	30B	25DD2B	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Tibia	1
E22/S76	30B	25DD2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S76	30B	25DD2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S76	31A	25EE1A	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S76	31A	25EE1B	Isi/Icl/Isi-c	Paleoindian		<i>Canis</i> sp.	Metatarsal 2	1
E22/S76	31A	25EE1B	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	5
E22/S76	31A	25EE1C	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	3
E22/S76	31B	25EE2A	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E22/S76	31B	25EE2B	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E22/S76	31B	25EE2D	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S76	32A	25FF1B	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E22/S76	32A	25FF1B	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E22/S76	32A	25FF1B	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S76	32B	25FF2C	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Long bone	1
E22/S76	32B	25FF2C	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E22/S76	32B	25FF2C	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E22/S76	32B	25FF2D	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E22/S76	32B	25FF2D	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
E22/S76	33A	25GG1A	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E22/S76	33A	25GG1C	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E22/S76	33A	25GG1C	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	10
E22/S76	33A	25GG1D	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S76	33B	25GG2D	Isi/Icl	E. Paleo.	f123	Leporidae	Mandible	1
E22/S76	33B	25GG2D	Isi/Icl	E. Paleo.		Leporidae	Permanent tooth	2
E22/S76	33B	25GG2D	Isi/Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	2
E22/S76	33B	25GG2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E22/S76	34B	25HH2A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S76	34B	25HH2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E22/S76	34B	25HH2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E22/S76	34B	25HH2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	35A	25II1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	6
E22/S76	35A	25II1C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	35A	25II1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	55
E22/S76	35A	25II1D	Isi/Icl	E. Paleo.		Vertebrata	Long bone	1
E22/S76	35B	25II2B	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S76	35B	25II2B	Isi	E. Paleo.		Vertebrata	Indeterminate	15
E22/S76	35B	25II2C	Isi	E. Paleo.		Mammalia (Very large)	Indeterminate	1
E22/S76	35B	25II2C	Isi	E. Paleo.		Vertebrata	Indeterminate	24
E22/S76	36A	25JJ1B	Isi/D?	E. Paleo.		Vertebrata	Indeterminate	2
E22/S76	36B	25JJ2B	Isi/D?	E. Paleo.		Mammalia (Medium/large)	Indeterminate	5
E22/S76	36B	25JJ2B	Isi/D?	E. Paleo.		Vertebrata	Indeterminate	27
E22/S76	36B	25JJ2C	Isi/D?	E. Paleo.		Vertebrata	Indeterminate	3
E22/S76	37B	25KK2D	Isi	E. Paleo.		Carnivora	Permanent tooth	2
E22/S76	37B	25KK2D	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S78	15	24O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S78	15	24O	IIIa/b	E. Archaic		<i>Odocoileus</i> sp.	Dist. phalange of paradigit	1
E22/S78	16A	24P1	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S78	16B	24P2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S78	16B	24P2	IIIa	E. Archaic		Vertebrata	Indeterminate	2
E22/S78	17A	24Q1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E22/S78	17A	24Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	10
E22/S78	18A	24R1	IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E22/S78	18A	24R1	IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	2
E22/S78	18A	24R1	IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	4
E22/S78	18A	24R1	IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S78	18A	24R1	IIIa	L. Paleo./E. Archaic		Testudinata	Neural	1
E22/S78	18A	24R1	IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
E22/S78	18A	24R1	IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	4
E22/S78	18B	24R2	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	2
E22/S78	18B	24R2	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	8
E22/S78	19A	24S1	II/IIIa	L. Paleo./E. Archaic		Kinosternidae	Peripheral	1
E22/S78	19A	24S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S78	19A	24S1	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E22/S78	19A	24S1	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	7
E22/S78	19A	24S1	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
E22/S78	19A	24S1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	11
E22/S78	19B	24S2A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	11
E22/S78	19B	24S2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S78	19B	24S2C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E22/S78	19B	24S2D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E22/S78	20A	24T1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	20A	24T1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E22/S78	20A	24T1B	II	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E22/S78	20A	24T1C	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S78	20A	24T1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	20A	24T1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S78	20A	24T1D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S78	20B	24T2A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S78	21A	24U1B	II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S78	21B	24U2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S78	21B	24U2B	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S78	21B	24U2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	22A	24V1A	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S78	22A	24V1C	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Metatarsal	1
E22/S78	22B	24V2A	II	L. Paleo.		Vertebrata	Indeterminate	4
E22/S78	22B	24V2B	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S78	22B	24V2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S78	22B	24V2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	22B	24V2D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S78	22B	24V2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	23A	24W1B	II	L. Paleo.		Vertebrata	Long bone	1
E22/S78	23A	24W1C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S78	23A	24W1D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S78	23B	24W2A	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	23B	24W2C	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S78	23B	24W2D	Id/II	L. Paleo.		Testudinata	Shell fragment	2
E22/S78	24A	24X1A	Id/II	L. Paleo.		Vertebrata	Indeterminate	6
E22/S78	24A	24X1B	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S78	24A	24X1C	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	24A	24X1D	Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E22/S78	24B	24X2A	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S78	24B	24X2A	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S78	24B	24X2A	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S78	24B	24X2B	Id/II	L. Paleo.		Vertebrata	Compact bone	1
E22/S78	24B	24X2B	Id/II	L. Paleo.		Vertebrata	Indeterminate	9
E22/S78	24B	24X2C	Id/II	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E22/S78	24B	24X2C	Id/II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S78	24B	24X2C	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	24B	24X2D	Id/II	L. Paleo.		Mammalia (Medium)	Long bone	1
E22/S78	24B	24X2D	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S78	25A	24Y1A	Id/II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S78	25A	24Y1A	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S78	25A	24Y1C	Id/II	L. Paleo.		Carnivora	Tooth, perm./decid. ind.	1
E22/S78	25A	24Y1D	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	25B	24Y2A	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E22/S78	25B	24Y2A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	2
E22/S78	25B	24Y2B	Isi-c/Id	L. Paleo.		Mammalia (Large)	Indeterminate	1
E22/S78	25B	24Y2B	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E22/S78	25B	24Y2B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	25B	24Y2C	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E22/S78	25B	24Y2C	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	7
E22/S78	25B	24Y2D	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S78	25B	24Y2D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	26A	24Z1A	Isi-c/Id	L. Paleo.	f163	Mammalia (Medium)	Humerus	1
E22/S78	26A	24Z1A	Isi-c/Id	L. Paleo.	f163	Medium/Large Vertebrata	Long bone	4
E22/S78	26A	24Z1A	Isi-c/Id	L. Paleo.	f163	Testudinata	Shell fragment	1
E22/S78	26A	24Z1A	Isi-c/Id	L. Paleo.	f163	Vertebrata	Indeterminate	4
E22/S78	26A	24Z1B	Isi-c/Id	L. Paleo.	f163	Vertebrata	Indeterminate	1
E22/S78	26A	24Z1C	Isi-c/Id	L. Paleo.	f163	Mammalia (Medium/large)	Indeterminate	1
E22/S78	26A	24Z1C	Isi-c/Id	L. Paleo.	f163	Mammalia (Medium/large)	Long bone	1
E22/S78	26A	24Z1C	Isi-c/Id	L. Paleo.	f163	Small/Medium Vertebrata	Long bone	4
E22/S78	26A	24Z1C	Isi-c/Id	L. Paleo.	f163	Vertebrata	Indeterminate	7
E22/S78	26A	24Z1D	Isi-c/Id	L. Paleo.	f163	<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E22/S78	26A	24Z1D	Isi-c/Id	L. Paleo.	f163	Medium/Large Vertebrata	Indeterminate	4
E22/S78	26A	24Z1D	Isi-c/Id	L. Paleo.	f163	<i>Sylvilagus</i> sp.	Calcaneus	1
E22/S78	26A	24Z1D	Isi-c/Id	L. Paleo.	f163	Testudinata	Shell fragment	1
E22/S78	26A	24Z1D	Isi-c/Id	L. Paleo.	f163	Vertebrata	Indeterminate	22
E22/S78	26B	24Z2	Isi-c/Id	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E22/S78	26B	24Z2	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E22/S78	26B	24Z2	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S78	26B	24Z2	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E22/S78	26B	24Z2	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E22/S78	26B	24Z2	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Proximal phalange	1
E22/S78	26B	24Z2	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	48
E22/S78	26B	24Z2A	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E22/S78	26B	24Z2A	Isi-c/Id	L. Paleo.		Testudinata	Shell fragment	1
E22/S78	26B	24Z2B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	26B	24Z2C	Isi-c/Id	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Tibia	1
E22/S78	26B	24Z2D	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Long bone	1
E22/S78	26B	24Z2D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	2
E22/S78	27A	24AA1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S78	27A	24AA1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S78	27A	24AA1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E22/S78	27A	24AA1B	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E22/S78	27A	24AA1B	Isi-c	L. Paleo.		Vertebrata	Metapodial	1
E22/S78	27A	24AA1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S78	27A	24AA1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E22/S78	27A	24AA1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S78	27B	24AA2A	Isi-c	L. Paleo.		Mammalia (Medium)	Phalange	1
E22/S78	27B	24AA2A	Isi-c	L. Paleo.		Mammalia (Small/medium)	Tooth, perm./decid. ind.	1
E22/S78	27B	24AA2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	10
E22/S78	27B	24AA2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S78	27B	24AA2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E22/S78	28A	24BB1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S78	28A	24BB1B	Isi-c	L. Paleo.		Mammalia (Medium)	Humerus	1
E22/S78	28A	24BB1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
E22/S78	28A	24BB1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S78	28A	24BB1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E22/S78	28A	24BB1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S78	28B	24BB2A	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	3
E22/S78	28B	24BB2A	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	4
E22/S78	28B	24BB2B	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S78	28B	24BB2C	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E22/S78	28B	24BB2C	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S78	28B	24BB2D	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S78	29A	24CC1A	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	3
E22/S78	29A	24CC1A	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	1
E22/S78	29A	24CC1A	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	14
E22/S78	29A	24CC1B	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S78	29B	24CC2A	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	6
E22/S78	29B	24CC2B	Isi/Isi-c	Paleoindian		Vertebrata	Long bone	1
E22/S78	29B	24CC2C	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S78	30A	24DD1A	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E22/S78	30A	24DD1C	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E22/S78	30A	24DD1C	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E22/S78	30A	24DD1C	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E22/S78	30A	24DD1D	Isi/Isi-c	Paleoindian		<i>Bison</i> sp.	Astragalus	1
E22/S78	30A	24DD1D	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	16
E22/S78	30B	24DD2B	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E22/S78	30B	24DD2C	Isi/Isi-c	Paleoindian		Mammalia (Large)	Tooth, perm./decid. ind.	1
E22/S78	30B	24DD2C	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E22/S78	30B	24DD2D	Isi/Isi-c	Paleoindian		Mammalia (Very large)	Indeterminate	1
E22/S78	31A	24EE1B	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E22/S78	31A	24EE1B	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S78	31A	24EE1C	Isi/Isi-c	Paleoindian		Mammalia (Large)	Long bone	1
E22/S78	31A	24EE1C	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	6
E22/S78	31A	24EE1C	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	9
E22/S78	31B	24EE2C	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E22/S78	31B	24EE2C	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	7
E22/S78	32A	24FF1D	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E22/S80	6	23F	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E22/S80	6	23F	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	3
E22/S80	6	23F	IIIc	L. Archaic		Vertebrata	Indeterminate	9
E22/S80	6	23F	IIIc	L. Archaic		Vertebrata	Long bone	1
E22/S80	7	23G	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E22/S80	7	23G	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S80	7	23G	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	2
E22/S80	7	23G	IIIb/c	Middle/L. Archaic		<i>Odocoileus</i> sp.	Proximal phalange	1
E22/S80	7	23G	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	10
E22/S80	8	23H	IIIb/c	M. Archaic		<i>Canis</i> sp.	Permanent tooth	1
E22/S80	8	23H	IIIb/c	M. Archaic		Mammalia (Medium/large)	Cranium	1
E22/S80	8	23H	IIIb/c	M. Archaic		Mammalia (Medium/large)	Mandible	1
E22/S80	8	23H	IIIb/c	M. Archaic		Vertebrata	Indeterminate	21
E22/S80	9	23I	IIIb	M. Archaic		Vertebrata	Indeterminate	8
E22/S80	10	23J	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	4
E22/S80	10	23J	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	4
E22/S80	11	23K	IIIb	Early/M. Archaic		Leporidae	Astragalus	1
E22/S80	11	23K	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Long bone	6
E22/S80	11	23K	IIIb	Early/M. Archaic		<i>Odocoileus</i> sp.	Intermediate carpal bone	2
E22/S80	11	23K	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	4
E22/S80	12	23L	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S80	12	23L	IIIb	E. Archaic		Vertebrata	Indeterminate	1
E22/S80	13	23M	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S80	13	23M	IIIa/b	E. Archaic		Vertebrata	Indeterminate	4
E22/S80	15	23O	IIIa	E. Archaic		Mammalia (Medium)	Proximal phalange	1
E22/S80	15	23O	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S80	16	23P	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S80	16	23P	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E22/S80	17	23Q	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S80	17	23Q	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
E22/S80	18	23R	II	L. Paleo.		Vertebrata	Indeterminate	11
E22/S80	18	23R	II	L. Paleo.		Vertebrata	Long bone	1
E22/S80	19	23S	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E22/S80	19	23S	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E22/S80	19	23S	II	L. Paleo.		Vertebrata	Indeterminate	12
E22/S80	21	23U	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S80	23	23W	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S80	23	23W	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S80	23	23W	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E22/S80	23	23W	Id/II	L. Paleo.		Vertebrata	Indeterminate	4
E22/S80	24	23X	Isi-c/Id	L. Paleo.		Mammalia (Large)	Indeterminate	2
E22/S80	24	23X	Isi-c/Id	L. Paleo.		Mammalia (Large)	Vertebra	1
E22/S80	24	23X	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S80	24	23X	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E22/S80	24	23X	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	10
E22/S80	25	23Y	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E22/S80	26	23Z	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E22/S80	26	23Z	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E22/S80	27	23AA	Isi/Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E22/S82	6	22F	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	6
E22/S82	6	22F	IIIb/c	Middle/L. Archaic		<i>Odocoileus</i> sp.	Distal phalange	1
E22/S82	6	22F	IIIb/c	Middle/L. Archaic		<i>Trionyx</i> sp.	Shell fragment	1
E22/S82	6	22F	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	29
E22/S82	7	22G	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Ulnar carpal bone	1
E22/S82	7	22G	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Rib	1
E22/S82	7	22G	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Sacrum	1
E22/S82	7	22G	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	5
E22/S82	7	22G	IIIb/c	Middle/L. Archaic		<i>Odocoileus</i> sp.	Fused 3rd & 4th metatarsal	1
E22/S82	7	22G	IIIb/c	Middle/L. Archaic		<i>Odocoileus</i> sp.	Mandible	1
E22/S82	7	22G	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	23
E22/S82	8	22H	IIIb/c	M. Archaic		Mammalia (Medium/large)	Long bone	2
E22/S82	8	22H	IIIb/c	M. Archaic		<i>Odocoileus</i> sp.	Fused 3rd & 4th metatarsal	1
E22/S82	8	22H	IIIb/c	M. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E22/S82	8	22H	IIIb/c	M. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
E22/S82	8	22H	IIIb/c	M. Archaic		Vertebrata	Indeterminate	9
E22/S82	9	22I	IIIb	Early/M. Archaic		Mammalia (Large)	Indeterminate	1
E22/S82	9	22I	IIIb	Early/M. Archaic		Mammalia (Large)	Long bone	1
E22/S82	9	22I	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S82	9	22I	IIIb	Early/M. Archaic		<i>Odocoileus</i> sp.	Fused 3rd & 4th metatarsal	1
E22/S82	9	22I	IIIb	Early/M. Archaic		<i>Odocoileus</i> sp.	Proximal phalange	1
E22/S82	9	22I	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	4
E22/S82	10	22J	IIIb	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E22/S82	10	22J	IIIb	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E22/S82	10	22J	IIIb	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E22/S82	10	22J	IIIb	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Ulna	1
E22/S82	10	22J	IIIb	Early/M. Archaic		Mammalia (Large)	Indeterminate	2
E22/S82	10	22J	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	12
E22/S82	10	22J	IIIb	Early/M. Archaic		Vertebrata	Long bone	1
E22/S82	11	22K	IIIb	Early/M. Archaic		Carnivora	Permanent tooth	1
E22/S82	11	22K	IIIb	Early/M. Archaic		Mammalia (Medium)	Ulna	1
E22/S82	11	22K	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S82	11	22K	IIIb	Early/M. Archaic		Testudinata	Plastron fragment ind.	1
E22/S82	11	22K	IIIb	Early/M. Archaic		Testudinata	Shell fragment	1
E22/S82	11	22K	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	8
E22/S82	12	22L	IIIb	E. Archaic		<i>Lepus californicus</i>	Tibia	1
E22/S82	12	22L	IIIb	E. Archaic		Mammalia (Large)	Long bone	1
E22/S82	12	22L	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	6
E22/S82	12	22L	IIIb	E. Archaic		Mammalia (Medium/large)	Long bone	7
E22/S82	12	22L	IIIb	E. Archaic		Vertebrata	Indeterminate	11
E22/S82	13	22M	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S82	13	22M	IIIa/b	E. Archaic		Testudinata	Shell fragment	1
E22/S82	13	22M	IIIa/b	E. Archaic		Vertebrata	Indeterminate	4
E22/S82	14	22N	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E22/S82	14	22N	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	3
E22/S82	14	22N	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S82	14	22N	IIIa	E. Archaic		Vertebrata	Indeterminate	10
E22/S82	15	22O	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S82	15	22O	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S82	15	22O	IIIa	E. Archaic		Testudinata	Peripheral	1
E22/S82	15	22O	IIIa	E. Archaic		Vertebrata	Indeterminate	15
E22/S82	16	22P	II/IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E22/S82	16	22P	II/IIIa	E. Archaic		Testudinata	Peripheral	1
E22/S82	16	22P	II/IIIa	E. Archaic		Vertebrata	Indeterminate	9
E22/S82	17	22Q	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S82	17	22Q	II	L. Paleo.		Mammalia (Medium/large)	Long bone	3
E22/S82	17	22Q	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E22/S82	18	22R	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S82	18	22R	II	L. Paleo.		Vertebrata	Indeterminate	4
E22/S82	19	22S	II	L. Paleo.		<i>Lepus californicus</i>	Calcaneus	1
E22/S82	19	22S	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E22/S82	19	22S	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	6
E22/S82	19	22S	II	L. Paleo.		Vertebrata	Indeterminate	8
E22/S82	20	22T	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E22/S82	20	22T	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E22/S82	20	22T	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E22/S82	20	22T	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E22/S82	20	22T	II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S82	22	22V	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E22/S82	22	22V	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E22/S82	22	22V	II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S82	23	22W	Id/II	L. Paleo.		Mammalia (Large)	Long bone	1
E22/S82	23	22W	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	5
E22/S82	23	22W	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E22/S82	23	22W	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E22/S82	24	22X	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S82	24	22X	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Indeterminate	5
E22/S82	24	22X	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	6
E22/S82	25	22Y	X/Isi	Paleoindian		Mammalia (Large)	Long bone	1
E22/S82	25	22Y	X/Isi	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
E22/S82	25	22Y	X/Isi	Paleoindian		Vertebrata	Indeterminate	1
E22/S82	27	22AA	X/Isi	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E22/S82	27	22AA	X/Isi	Paleoindian		Vertebrata	Indeterminate	5
E22/S84	6	21F	IIIc	Middle/L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E22/S84	6	21F	IIIc	Middle/L. Archaic		Artiodactyla (Large)	Tooth, perm./decid. ind.	2
E22/S84	6	21F	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	3
E22/S84	6	21F	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	36
E22/S84	7	21G	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E22/S84	7	21G	IIIb/c	M. Archaic		Mammalia (Large)	Indeterminate	3
E22/S84	7	21G	IIIb/c	M. Archaic		Mammalia (Large)	Long bone	2
E22/S84	7	21G	IIIb/c	M. Archaic		Mammalia (Medium/large)	Alveolar ridge fragment	1
E22/S84	7	21G	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	4
E22/S84	7	21G	IIIb/c	M. Archaic		Mammalia (Small)	Humerus	1
E22/S84	7	21G	IIIb/c	M. Archaic		Vertebrata	Indeterminate	16
E22/S84	8	21H	IIIb/c	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Lumbar vertebra	1
E22/S84	8	21H	IIIb/c	Early/M. Archaic		Mammalia (Large)	Long bone	1
E22/S84	8	21H	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	5
E22/S84	8	21H	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	17
E22/S84	9	21I	IIIb/c	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E22/S84	9	21I	IIIb/c	Early/M. Archaic		Carnivora	Permanent tooth	1
E22/S84	9	21I	IIIb/c	Early/M. Archaic		Mammalia (Large)	Long bone	2
E22/S84	9	21I	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S84	9	21I	IIIb/c	Early/M. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S84	9	21I	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	20
E22/S84	10	21J	IIIb	E. Archaic		Mammalia (Large)	Long bone	1
E22/S84	10	21J	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	5
E22/S84	10	21J	IIIb	E. Archaic		Vertebrata	Indeterminate	7
E22/S84	11	21K	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S84	11	21K	IIIb	E. Archaic		<i>Odocoileus</i> sp.	Calcaneus	1
E22/S84	11	21K	IIIb	E. Archaic		Vertebrata	Indeterminate	1
E22/S84	12	21L	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S84	12	21L	IIIb	E. Archaic		Vertebrata	Indeterminate	14
E22/S84	13	21M	IIIb	E. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E22/S84	13	21M	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S84	13	21M	IIIb	E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S84	13	21M	IIIb	E. Archaic		Medium/Large Vertebrata	Indeterminate	3
E22/S84	13	21M	IIIb	E. Archaic		Vertebrata	Indeterminate	2
E22/S84	14	21N	IIIa/b	E. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E22/S84	14	21N	IIIa/b	E. Archaic		Mammalia (Large)	Indeterminate	1
E22/S84	14	21N	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	7
E22/S84	14	21N	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E22/S84	14	21N	IIIa/b	E. Archaic		Medium/Large Vertebrata	Long bone	1
E22/S84	14	21N	IIIa/b	E. Archaic		Vertebrata	Indeterminate	20
E22/S84	15	21O	IIIa	E. Archaic		Mammalia (Large)	Long bone	1
E22/S84	15	21O	IIIa	E. Archaic		Mammalia (Large)	Vertebra	2
E22/S84	15	21O	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E22/S84	15	21O	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	6
E22/S84	15	21O	IIIa	E. Archaic		Mammalia (Medium/large)	Rib	2
E22/S84	15	21O	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	9
E22/S84	15	21O	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S84	15	21O	IIIa	E. Archaic		Testudinata	Shell fragment	1
E22/S84	15	21O	IIIa	E. Archaic		Vertebrata	Indeterminate	22
E22/S84	16	21P	IIIa	E. Archaic		Leporidae	Mandible	1
E22/S84	16	21P	IIIa	E. Archaic		Vertebrata	Indeterminate	11
E22/S84	17	21Q	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E22/S84	17	21Q	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	9
E22/S84	18	21R	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E22/S84	18	21R	II	L. Paleo.		Vertebrata	Indeterminate	7
E22/S84	20	21T	X/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S84	20	21T	X/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S84	20	21T	X/II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S84	22	21V	X/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	6
E22/S84	22	21V	X/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E22/S84	22	21V	X/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	6
E22/S84	22	21V	X/II	L. Paleo.		Vertebrata	Indeterminate	2
E22/S84	24	21X	X/Isi-c/Id/II	L. Paleo.		Mammalia (Large)	Indeterminate	2
E22/S84	24	21X	X/Isi-c/Id/II	L. Paleo.		Mammalia (Medium)	Long bone	1
E22/S84	24	21X	X/Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E22/S84	24	21X	X/Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	9
E22/S84	25	21Y	X/Isi-c/Id	L. Paleo.		Mammalia (Medium)	Metapodial	1
E22/S84	25	21Y	X/Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E22/S84	25	21Y	X/Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E22/S86	6	20F	IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	4
E22/S86	6	20F	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Indeterminate	14
E22/S86	7	20G	IIIc	Early/M. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E22/S86	7	20G	IIIc	Early/M. Archaic	BRM1	Mammalia (Large)	Indeterminate	1
E22/S86	7	20G	IIIc	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	2
E22/S86	7	20G	IIIc	Early/M. Archaic	BRM1	<i>Odocoileus</i> sp.	Proximal phalange	1
E22/S86	7	20G	IIIc	Early/M. Archaic	BRM1	Vertebrata	Indeterminate	6
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Lumbar vertebra	1
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Artiodactyla	Tooth, perm./decid. ind.	1
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Large)	Long bone	5
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Large)	Pelvis	1
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Large)	Rib	1
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	6
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Long bone	6
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	<i>Odocoileus</i> sp.	Tibia	1
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Small/Medium Vertebrata	Long bone	3
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Testudinata	Peripheral	1
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Testudinata	Plastron fragment ind.	2
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Testudinata	Shell fragment	2
E22/S86	8	20H	IIIb/c	Early/M. Archaic	BRM1	Vertebrata	Indeterminate	20
E22/S86	9	20I	IIIb/c	Early/M. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Astragalus	1
E22/S86	9	20I	IIIb/c	Early/M. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S86	9	20I	IIIb/c	Early/M. Archaic	BRM1	Artiodactyla (Large)	Rib	1
E22/S86	9	20I	IIIb/c	Early/M. Archaic	BRM1	Leporidae	Pelvis	1
E22/S86	9	20I	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Medium)	Pelvis	1
E22/S86	9	20I	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	3
E22/S86	9	20I	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Long bone	1
E22/S86	9	20I	IIIb/c	Early/M. Archaic	BRM1	Vertebrata	Indeterminate	13
E22/S86	10	20J	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Large)	Indeterminate	1
E22/S86	10	20J	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Large)	Long bone	3
E22/S86	10	20J	IIIb/c	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	4
E22/S86	10	20J	IIIb/c	Early/M. Archaic	BRM1	Vertebrata	Indeterminate	3
E22/S86	11	20K	IIIb	E. Archaic		Vertebrata	Indeterminate	5
E22/S86	12	20L	IIIb	E. Archaic		Mammalia (Large)	Long bone	1
E22/S86	12	20L	IIIb	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E22/S86	12	20L	IIIb	E. Archaic		Vertebrata	Indeterminate	2
E22/S86	14	20N	X/IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S86	14	20N	X/IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	3
E22/S86	14	20N	X/IIIa/b	E. Archaic		Vertebrata	Indeterminate	1
E22/S86	15	20O	X/IIIa	E. Archaic		Antilocapra/Odocoileus	Fused 3rd & 4th metatarsal	1
E22/S86	15	20O	X/IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	6
E22/S86	15	20O	X/IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S86	15	20O	X/IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E22/S86	15	20O	X/IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Tibia	1
E22/S86	15	20O	X/IIIa	E. Archaic		Vertebrata	Indeterminate	4
E22/S86	16	20P	X/II/IIIa	E. Archaic		Mammalia (Large)	Indeterminate	1
E22/S86	16	20P	X/II/IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E22/S86	16	20P	X/II/IIIa	E. Archaic		Testudinata	Shell fragment	1
E22/S86	16	20P	X/II/IIIa	E. Archaic		Vertebrata	Indeterminate	8
E22/S86	17	20Q	X/II/IIIa	E. Archaic		Mammalia (Large)	Long bone	1
E22/S86	17	20Q	X/II/IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S86	17	20Q	X/II/IIIa	E. Archaic		Vertebrata	Indeterminate	8
E22/S86	18	20R	X/II	E. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E22/S86	18	20R	X/II	E. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E22/S86	18	20R	X/II	E. Archaic		Mammalia (Medium/large)	Indeterminate	6
E22/S86	18	20R	X/II	E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S86	18	20R	X/II	E. Archaic		Testudinata	Peripheral	1
E22/S86	18	20R	X/II	E. Archaic		Testudinata	Shell fragment	1
E22/S86	18	20R	X/II	E. Archaic		Vertebrata	Indeterminate	8
E22/S86	19	20S	X/II	L. Paleo./E. Archaic		Vertebrata	Indeterminate	8
E22/S86	20	20T	X/II	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	7
E22/S86	20	20T	X/II	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S86	20	20T	X/II	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S86	22	20V	X	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	3
E22/S86	22	20V	X	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E22/S86	22	20V	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
E22/S86	23	20W	X	L. Paleo.		Mammalia (Medium)	Ulna	1
E22/S86	23	20W	X	L. Paleo.		Mammalia (Medium/large)	Rib	1
E22/S86	23	20W	X	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E22/S86	23	20W	X	L. Paleo.		Vertebrata	Indeterminate	4
E22/S86	24	20X	X	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E22/S86	24	20X	X	L. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E22/S86	24	20X	X	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S86	24	20X	X	L. Paleo.		Vertebrata	Indeterminate	1
E22/S88	6	19F	IIIc	Middle/L. Archaic	BRM1	cf. <i>Odocoileus</i> sp.	Fused 3rd & 4th metacarpal	1
E22/S88	6	19F	IIIc	Middle/L. Archaic	BRM1	Leporidae	Humerus	1
E22/S88	6	19F	IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	2
E22/S88	6	19F	IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Long bone	1
E22/S88	6	19F	IIIc	Middle/L. Archaic	BRM1	Medium/Large Vertebrata	Indeterminate	7
E22/S88	6	19F	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Indeterminate	3
E22/S88	7	19G	IIIc	Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Radius	1
E22/S88	7	19G	IIIc	Archaic	BRM1	Colubridae	Dorsal vertebra	1
E22/S88	7	19G	IIIc	Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	1
E22/S88	7	19G	IIIc	Archaic	BRM1	Vertebrata	Indeterminate	6
E22/S88	8	19H	IIIc	Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Fused central/fourth tarsal	1
E22/S88	8	19H	IIIc	Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	1
E22/S88	8	19H	IIIc	Archaic	BRM1	Vertebrata	Indeterminate	2
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	<i>Antilocapra/Odocoileus</i>	Tooth, perm./decid. ind.	1
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	Artiodactyla	Tooth, perm./decid. ind.	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	<i>Canis</i> sp.	Permanent tooth	1
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	cf. <i>Aves</i> (Medium)	Long bone	1
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	<i>Lepus californicus</i>	Ulna	1
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	Mammalia (Large)	Indeterminate	2
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	Mammalia (Large)	Long bone	2
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Long bone	6
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	Medium/Large Vertebrata	Indeterminate	13
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	Small/Medium Vertebrata	Long bone	1
E22/S88	9	19I	Y/IIIc	Early/M. Archaic	BRM1	Vertebrata	Indeterminate	4
E22/S88	10	19J	Y/IIIb/c	Early/M. Archaic	BRM1	<i>Sylvilagus</i> sp.	Calcaneus	1
E22/S88	10	19J	Y/IIIb/c	Early/M. Archaic	BRM1	Vertebrata	Indeterminate	2
E22/S88	11	19K	Y/IIIb	E. Archaic		<i>Antilocapra/Onychomys</i>	Fused 3rd & 4th metatarsal	1
E22/S88	11	19K	Y/IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	5
E22/S88	11	19K	Y/IIIb	E. Archaic		Vertebrata	Indeterminate	27
E22/S88	12	19L	X/Y/IIIb	E. Archaic		<i>Antilocapra/Onychomys</i>	Fused 3rd & 4th metacarpal	1
E22/S88	12	19L	X/Y/IIIb	E. Archaic		<i>Onychomys</i> sp.	Proximal phalange	1
E22/S88	12	19L	X/Y/IIIb	E. Archaic		Small/Medium Vertebrata	Long bone	3
E22/S88	12	19L	X/Y/IIIb	E. Archaic		Testudinata	Shell fragment	1
E22/S88	12	19L	X/Y/IIIb	E. Archaic		Vertebrata	Indeterminate	1
E22/S88	13	19M	X/IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S88	13	19M	X/IIIb	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E22/S88	13	19M	X/IIIb	E. Archaic		Vertebrata	Indeterminate	4
E22/S88	14	19N	X/IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S88	14	19N	X/IIIb	E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S88	14	19N	X/IIIb	E. Archaic		Mammalia (Small/medium)	Long bone	1
E22/S88	14	19N	X/IIIb	E. Archaic		Vertebrata	Indeterminate	1
E22/S88	15	19O	X	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S88	15	19O	X	E. Archaic		Vertebrata	Indeterminate	4
E22/S88	16	19P	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S88	16	19P	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	10
E22/S88	16	19P	X	L. Paleo./E. Archaic		Vertebrata	Long bone	1
E22/S88	17	19Q	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S88	17	19Q	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Metapodial	1
E22/S88	17	19Q	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E22/S88	18	19R	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S88	19	19S	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Alveolar ridge fragment	1
E22/S88	19	19S	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S88	19	19S	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Metapodial	1
E22/S88	19	19S	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
E22/S88	19	19S	X	L. Paleo./E. Archaic		Vertebrata	Long bone	1
E22/S88	20	19T	X	L. Paleo./E. Archaic		Leporidae	Mandible	1
E22/S88	20	19T	X	L. Paleo./E. Archaic		Mammalia (Large)	Long bone	2
E22/S88	20	19T	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	11
E22/S88	20	19T	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S88	22	19V	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S88	22	19V	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	2
E22/S88	22	19V	X	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E22/S88	22	19V	X	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	2
E22/S88	22	19V	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E22/S88	23	19W	X	L. Paleo./E. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E22/S88	23	19W	X	L. Paleo./E. Archaic		Mammalia (Large)	Indeterminate	1
E22/S88	23	19W	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E22/S88	23	19W	X	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
E22/S88	23	19W	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E22/S88	25	19Y	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S88	26	19Z	X	L. Paleo./E. Archaic		Mammalia (Large)	Long bone	1
E22/S88	26	19Z	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S90	0	F104	X	E. Archaic	f104	Vertebrata	Indeterminate	1
E22/S90	6	18F	IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	4
E22/S90	6	18F	IIIc	Middle/L. Archaic	BRM1	Testudinata	Shell fragment	1
E22/S90	6	18F	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Indeterminate	16
E22/S90	6	18F	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Long bone	1
E22/S90	7	18G	IIIc	Middle/L. Archaic	BRM1	<i>Lepus californicus</i>	Calcaneus	1
E22/S90	7	18G	IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	3
E22/S90	7	18G	IIIc	Middle/L. Archaic	BRM1	<i>Sigmodon hispidus</i>	Mandible	1
E22/S90	7	18G	IIIc	Middle/L. Archaic	BRM1	<i>Sigmodon hispidus</i>	Permanent tooth	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S90	7	18G	IIIc	Middle/L. Archaic	BRM1	Vertebrata	Indeterminate	9
E22/S90	8	18H	Y/IIIc	Middle/L. Archaic	BRM1	Mammalia (Medium/large)	Long bone	1
E22/S90	8	18H	Y/IIIc	Middle/L. Archaic	BRM1	Vertebrata	Indeterminate	4
E22/S90	9	18I	Y/IIIc	Early/M. Archaic	BRM1	Vertebrata	Indeterminate	4
E22/S90	10	18J	Y/IIIc	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Indeterminate	3
E22/S90	10	18J	Y/IIIc	Early/M. Archaic	BRM1	Mammalia (Medium/large)	Long bone	2
E22/S90	10	18J	Y/IIIc	Early/M. Archaic	BRM1	Vertebrata	Indeterminate	23
E22/S90	10	18J	Y/IIIc	Early/M. Archaic	BRM1	Vertebrata	Long bone	2
E22/S90	12	18L	X/Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S90	12	18L	X/Y	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E22/S90	12	18L	X/Y	E. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
E22/S90	12	18L	X/Y	E. Archaic		Vertebrata	Indeterminate	5
E22/S90	13	18M	X/Y	E. Archaic		Mammalia (Large)	Long bone	1
E22/S90	13	18M	X/Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S90	13	18M	X/Y	E. Archaic		Mammalia (Medium/large)	Long bone	1
E22/S90	13	18M	X/Y	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E22/S90	13	18M	X/Y	E. Archaic		Vertebrata	Indeterminate	1
E22/S90	14	18N	X	E. Archaic		cf. <i>Sigmodon hispidus</i>	Femur	1
E22/S90	14	18N	X	E. Archaic		Mammalia (Medium/large)	Long bone	2
E22/S90	14	18N	X	E. Archaic		<i>Sigmodon hispidus</i>	Mandible	1
E22/S90	14	18N	X	E. Archaic		<i>Sigmodon hispidus</i>	Permanent tooth	3
E22/S90	14	18N	X	E. Archaic		Testudinata	Plastron fragment ind.	1
E22/S90	14	18N	X	E. Archaic		Vertebrata	Indeterminate	1
E22/S90	15	18O	X	E. Archaic	f104	Medium/Large Vertebrata	Long bone	1
E22/S90	15	18O	X	E. Archaic	f104	Vertebrata	Indeterminate	1
E22/S90	15	F104	X	E. Archaic	f104	Mammalia (Medium/large)	Long bone	1
E22/S90	16	18P	X	L. Paleo./E. Archaic	f104	Mammalia (Medium/large)	Indeterminate	1
E22/S90	17	18Q	X	L. Paleo./E. Archaic	f104	Vertebrata	Indeterminate	3
E22/S90	18	18RA	X	L. Paleo./E. Archaic	f104	<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E22/S90	18	18RB	X	L. Paleo./E. Archaic	f104	Vertebrata	Indeterminate	1
E22/S90	18	18RC	X	L. Paleo./E. Archaic	f104	Vertebrata	Long bone	1
E22/S90	18	18RD	X	L. Paleo./E. Archaic	f104	Mammalia (Medium/large)	Indeterminate	1
E22/S90	18	18RD	X	L. Paleo./E. Archaic	f104	Medium/Large Vertebrata	Indeterminate	2
E22/S90	18	18RD	X	L. Paleo./E. Archaic	f104	Small/Medium Vertebrata	Long bone	1
E22/S90	18	18RD	X	L. Paleo./E. Archaic	f104	Testudinata	Shell fragment	1
E22/S90	20	18TB	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E22/S90	21	18UA	X	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E22/S90	21	18UC	X	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E22/S98	1	4A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E22/S98	1	4A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E22/S98	1	4A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Femur	2
E22/S98	1	4A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Humerus	1
E22/S98	1	4A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Metapodial	2
E22/S98	1	4A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Middle phalange	1
E22/S98	1	4A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Radius	1
E22/S98	1	4A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Tibia	1
E22/S98	1	4A	IIIc	L. Prehist.		Mammalia (Large)	Indeterminate	3
E22/S98	1	4A	IIIc	L. Prehist.		Mammalia (Large)	Long bone	2
E22/S98	1	4A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	42
E22/S98	1	4A	IIIc	L. Prehist.		<i>Odocoileus</i> sp.	Humerus	1
E22/S98	1	4A	IIIc	L. Prehist.		Vertebrata	Indeterminate	61
E22/S98	2	4B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Distal fibula	1
E22/S98	2	4B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E22/S98	2	4B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	5
E22/S98	2	4B	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Proximal phalange	1
E22/S98	2	4B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	15
E22/S98	8	4H	Y/IIIc	Archaic		Vertebrata	Indeterminate	3
E22/S98	10	4J	Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S98	10	4J	Y	E. Archaic		Vertebrata	Indeterminate	1
E22/S98	11	4K	X/Y	E. Archaic		Vertebrata	Indeterminate	1
E22/S98	14	4N	X	E. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E22/S98	14	4N	X	E. Archaic		Vertebrata	Indeterminate	1
E22/S98	15	4O	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S98	15	4O	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Metapodial	1
E22/S100	1	2A	IIIc	L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fourth carpal bone	1
E22/S100	1	2A	IIIc	L. Prehist.		Mammalia (Large)	Indeterminate	8
E22/S100	1	2A	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	15

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E22/S100	1	2A	IIIc	L. Prehist.		Mammalia (Medium/large)	Rib	1
E22/S100	1	2A	IIIc	L. Prehist.		Vertebrata	Indeterminate	45
E22/S100	2	2B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Alveolar ridge fragment	3
E22/S100	2	2B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	4
E22/S100	2	2B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	14
E22/S100	3	2C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S100	3	2C	IIIc	L. Archaic		Vertebrata	Indeterminate	2
E22/S100	4	2D	IIIc	L. Archaic		Mammalia (Large)	Long bone	3
E22/S100	5	2E	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S100	5	2E	IIIc	L. Archaic		Vertebrata	Indeterminate	4
E22/S100	8	2H	Y	Archaic		Mammalia (Medium/large)	Indeterminate	2
E22/S100	8	2H	Y	Archaic		Vertebrata	Indeterminate	1
E22/S100	9	2I	Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E22/S100	9	2I	Y	E. Archaic		Vertebrata	Indeterminate	1
E22/S100	13	2M	X	E. Archaic		Medium vertebrate, class ind.	Podial	1
E22/S100	13	2M	X	E. Archaic		Vertebrata	Indeterminate	3
E24/S64	15	52OC	III	Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S64	16	52PA	III	Archaic		Vertebrata	Indeterminate	2
E24/S64	16	52PC	III	Archaic		Mammalia (Medium/large)	Indeterminate	5
E24/S64	16	52PC	III	Archaic		Vertebrata	Indeterminate	1
E24/S72	15	31O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	2
E24/S72	16B	31P2	IIIa	E. Archaic		Vertebrata	Indeterminate	2
E24/S72	17A	31Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	2
E24/S72	17B	31Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	4
E24/S72	18A	31R1	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>		1
E24/S72	18A	31R1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S72	18A	31R1	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E24/S72	18B	31R2	IIIa	E. Archaic		Testudinata	Shell fragment	1
E24/S72	18B	31R2	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E24/S72	19A	31S1	IIIa	E. Archaic		Mammalia (Large)	Indeterminate	1
E24/S72	19A	31S1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S72	19A	31S1	IIIa	E. Archaic		Mammalia (Small/medium)	Femur	1
E24/S72	19A	31S1	IIIa	E. Archaic		Vertebrata	Indeterminate	4
E24/S72	19B	31S2A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S72	19B	31S2D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E24/S72	20A	31T1C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S72	20B	31T2B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S72	20B	31T2C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Long bone	1
E24/S72	20B	31T2D	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E24/S72	20B	31T2D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S72	21A	31U1A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E24/S72	21A	31U1B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S72	21A	31U1C	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E24/S72	21A	31U1C	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E24/S72	21A	31U1C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E24/S72	21A	31U1D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S72	21B	31U2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	21B	31U2B	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S72	21B	31U2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	21B	31U2D	II	L. Paleo.		<i>Sylvilagus</i> sp.	Scapula	1
E24/S72	22A	31V1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	6
E24/S72	22A	31V1B	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	22A	31V1C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E24/S72	22A	31V1C	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S72	22A	31V1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	6
E24/S72	22A	31V1D	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S72	22B	31V2A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E24/S72	22B	31V2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	22B	31V2C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S72	22B	31V2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	23B	31W2B	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	23B	31W2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	23B	31W2C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S72	23B	31W2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	23B	31W2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S72	24A	31X1A	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	24A	31X1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S72	24A	31X1B	II	L. Paleo.		Vertebrata	Indeterminate	8
E24/S72	24A	31X1D	II	L. Paleo.		Vertebrata	Indeterminate	5
E24/S72	24B	31X2A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S72	24B	31X2A	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S72	24B	31X2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	24B	31X2C	II	L. Paleo.		Mammalia (Large)	Indeterminate	1
E24/S72	24B	31X2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	25A	31Y1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	25A	31Y1C	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S72	25A	31Y1C	II	L. Paleo.		Vertebrata	Indeterminate	5
E24/S72	25A	31Y1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S72	25A	31Y1D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	25A	31Y1D	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S72	25B	31Y2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	25B	31Y2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	25B	31Y2C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S72	25B	31Y2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	25B	31Y2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	26A	31Z1B	II	L. Paleo.		Vertebrata	Indeterminate	5
E24/S72	26A	31Z1D	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S72	26A	31Z1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	26B	31Z2A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	26B	31Z2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	26B	31Z2D	II	L. Paleo.		Mammalia (Medium/large)	Pelvis	1
E24/S72	26B	31Z2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E24/S72	26B	31Z2D	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S72	26B	31Z2D	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	27A	31AA1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	27A	31AA1B	II	L. Paleo.		<i>Canis</i> sp.	Metacarpal 5	1
E24/S72	27A	31AA1B	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	27A	31AA1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	27A	31AA1D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S72	27A	31AA1D	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S72	27B	31AA2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	27B	31AA2C	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	27B	31AA2D	II	L. Paleo.		Mammalia (Medium/large)	Mandible	1
E24/S72	27B	31AA2D	II	L. Paleo.		Vertebrata	Indeterminate	7
E24/S72	28A	31BB1A	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S72	28A	31BB1A	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S72	28A	31BB1A	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S72	28A	31BB1B	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	28A	31BB1B	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E24/S72	28A	31BB1B	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S72	28A	31BB1B	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	28A	31BB1C	Isi-c/II	L. Paleo.		Mammalia (Medium)	Metapodial	1
E24/S72	28A	31BB1C	Isi-c/II	L. Paleo.		Mammalia (Medium)	Pelvis	1
E24/S72	28A	31BB1C	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E24/S72	28A	31BB1D	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	28A	31BB1D	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Podial	1
E24/S72	28A	31BB1D	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E24/S72	28A	31BB1D	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S72	28B	31BB2B	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	12
E24/S72	28B	31BB2C	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S72	28B	31BB2C	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	28B	31BB2C	Isi-c/II	L. Paleo.		Vertebrata	Long bone	1
E24/S72	29A	31CC1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	10
E24/S72	29A	31CC1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	29A	31CC1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E24/S72	29B	31CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	29B	31CC2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E24/S72	29B	31CC2C	Isi-c	L. Paleo.		Mammalia (Medium)	Tooth, perm./decid. ind.	1
E24/S72	29B	31CC2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E24/S72	29B	31CC2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E24/S72	30A	31DD1A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	30A	31DD1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	30A	31DD1B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E24/S72	30A	31DD1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	18

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S72	30A	31DD1D	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E24/S72	30B	31DD2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	30B	31DD2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	30B	31DD2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S72	30B	31DD2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	31A	31EE1A	Isi-c	L. Paleo.		Mammalia (Small)	Permanent tooth	1
E24/S72	31A	31EE1A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	31A	31EE1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
E24/S72	31A	31EE1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S72	31A	31EE1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S72	31A	31EE1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	31B	31EE2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S72	31B	31EE2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S72	31B	31EE2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S72	31B	31EE2D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	31B	31EE2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E24/S72	32A	31FF1B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E24/S72	32A	31FF1C	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
E24/S72	32A	31FF1C	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S72	32A	31FF1C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E24/S72	32A	31FF1D	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E24/S72	32A	31FF1D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E24/S72	32B	31FF2C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E24/S72	32B	31FF2D	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S72	33A	31GG1A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Vertebra	1
E24/S72	33A	31GG1D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E24/S72	33B	31GG2C	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
E24/S72	33B	31GG2C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	8
E24/S72	33B	31GG2D	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E24/S72	33B	31GG2D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E24/S72	34A	31HH1A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E24/S72	34A	31HH1B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	4
E24/S72	34B	31HH2C	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	34B	31HH2C	Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S72	34B	31HH2D	Icl	E. Paleo.		Vertebrata	Indeterminate	3
E24/S72	35A	31II1B	Icl	E. Paleo.		Vertebrata	Indeterminate	3
E24/S72	35A	31II1C	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E24/S72	35B	31II2C	Icl	E. Paleo.		<i>Odocoileus</i> sp.	Dist. phalange of paradigit	1
E24/S72	35B	31II2D	Icl	E. Paleo.		Mammalia (Medium/large)	Phalange	1
E24/S72	35B	31II2D	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E24/S72	36A	31JJ1C	Isi/Icl	E. Paleo.		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E24/S72	36A	31JJ1D	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	36B	31JJ2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E24/S72	36B	31JJ2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E24/S72	36B	31JJ2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	36B	31JJ2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	16
E24/S72	36B	31JJ2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E24/S72	37A	31KK1A	Isi/Icl	E. Paleo.		Testudinata	Shell fragment	1
E24/S72	37A	31KK1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	5
E24/S72	37B	31KK2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E24/S72	38A	31LL1D	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Permanent tooth	1
E24/S72	38A	31LL1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E24/S72	38B	31LL2A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S72	38B	31LL2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	1
E24/S72	38B	31LL2B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	3
E24/S72	38B-39A	31LL2/M	Igl/Isi	E. Paleo.		<i>Bison</i> sp.	Proximal phalange	1
E24/S72	38B-39A	31LL2/M	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	39A	31MM1B	Igl/Isi	E. Paleo.		<i>Bison</i> sp.	Permanent tooth	1
E24/S72	39A	31MM1B	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S72	39B	31MM2A	Igl/Isi	E. Paleo.		<i>Bison</i> sp.	Calcaneus	1
E24/S72	39B	31MM2A	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S72	39B	31MM2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	25
E24/S72	39B	31MM2B	Igl/Isi	E. Paleo.		<i>Bison</i> sp.	Rib	1
E24/S72	39B	31MM2B	Igl/Isi	E. Paleo.		Mammalia (Large)	Indeterminate	2
E24/S72	39B	31MM2B	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	32
E24/S72	39B	31MM2B	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S72	39B	31MM2B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	58

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S72	39B	31MM2C	Igl/Isi	E. Paleo.	f150	Medium/Large Vertebrata	Indeterminate	2
E24/S72	39B	31MM2C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	17
E24/S72	39B	31MM2D	Igl/Isi	E. Paleo.		Mammalia (Small)	Permanent tooth	1
E24/S72	39B	31MM2D	Igl/Isi	E. Paleo.		Testudinata	Shell fragment	1
E24/S72	39B	31MM2D	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	6
E24/S72	40A	31NN1A	Igl/Isi	E. Paleo.		Leporidae	Permanent tooth	7
E24/S72	40A	31NN1A	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S72	40A	31NN1A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	10
E24/S72	40A	31NN1C	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E24/S72	40A	31NN1C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	11
E24/S74	15	30O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	5
E24/S74	17A	30Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E24/S74	17B	30Q2	IIIa	E. Archaic		Leporidae	Astragalus	1
E24/S74	17B	30Q2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S74	17B	30Q2	IIIa	E. Archaic		Testudinata	Shell fragment	2
E24/S74	17B	30Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	4
E24/S74	18A	30R1	IIIa	E. Archaic		<i>Canis</i> sp.	Permanent tooth	1
E24/S74	18A	30R1	IIIa	E. Archaic		Vertebrata	Indeterminate	10
E24/S74	18B	30R2	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E24/S74	19A	30S1	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E24/S74	19A	30S1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E24/S74	19B	30S2A	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E24/S74	19B	30S2B	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
E24/S74	19B	30S2D	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E24/S74	20A	30T1A	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E24/S74	20A	30T1C	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	1
E24/S74	20A	30T1C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E24/S74	20B	30T2A	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S74	20B	30T2B	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E24/S74	20B	30T2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S74	20B	30T2D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E24/S74	20B	F150	II/IIIa	E. Archaic		Vertebrata	Indeterminate	1
E24/S74	21A	30U1A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E24/S74	21A	30U1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S74	21A	30U1A	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S74	21A	30U1C	II	L. Paleo.		cf. <i>Sylvilagus</i> sp.	Ulna	1
E24/S74	21A	30U1C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S74	21A	30U1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	21A	30U1D	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S74	21A	30U1D	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S74	21B	30U2A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	21B	30U2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	21B	30U2C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	21B	30U2D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	21B	30U2D	II	L. Paleo.		Vertebrata	Indeterminate	5
E24/S74	22A	30V1A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S74	22A	30V1A	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S74	22A	30V1B	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	22A	30V1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S74	22A	30V1B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S74	22A	30V1C	II	L. Paleo.		Small/Medium Vertebrata	Proximal phalange	1
E24/S74	22A	30V1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	22A	30V1D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S74	22B	30V2A	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E24/S74	23A	30W1A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S74	23A	30W1B	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	23A	30W1C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S74	23A	30W1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	23B	30W2A	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S74	23B	30W2C	II	L. Paleo.		Small/Medium Vertebrata	Rib	1
E24/S74	23B	30W2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	23B	30W2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	24A	30X1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	24A	30X1B	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E24/S74	24A	30X1B	II	L. Paleo.		Vertebrata	Indeterminate	18
E24/S74	24A	30X1C	II	L. Paleo.		Mammalia (Medium)	Cranium	1
E24/S74	24A	30X1C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S74	24A	30X1C	II	L. Paleo.		Mammalia (Very large)	Long bone	2
E24/S74	24A	30X1C	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S74	24A	30X1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	25A	30Y1A	II	L. Paleo.		Small/Medium Vertebrata	Proximal phalange	1
E24/S74	25A	30Y1A	II	L. Paleo.		Vertebrata	Indeterminate	5
E24/S74	25A	30Y1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S74	25A	30Y1C	II	L. Paleo.		Leporidae	Tibia	1
E24/S74	25A	30Y1C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S74	25A	30Y1D	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S74	25B	30Y2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	25B	30Y2D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	25B	30Y2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S74	25B	30Y2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S74	26A	30Z1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	26A	30Z1B	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S74	26A	30Z1C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E24/S74	26B	30Z2B	II	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E24/S74	26B	30Z2B	II	L. Paleo.		Vertebrata	Indeterminate	5
E24/S74	26B	30Z2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	27A	30AA1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	27B	30AA2	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	27B	30AA2A	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	27B	30AA2A	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	27B	30AA2A	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S74	27B	30AA2C	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	5
E24/S74	27B	30AA2C	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	19
E24/S74	27B	30AA2D	Isi-c/II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	4
E24/S74	28A	30BB1A	Isi-c/II	L. Paleo.		Mammalia (Large)	Long bone	1
E24/S74	28A	30BB1A	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	28A	30BB1A	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	28A	30BB1A	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S74	28A	30BB1B	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	28A	30BB1C	Isi-c/II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E24/S74	28A	30BB1C	Isi-c/II	L. Paleo.		Mammalia (Large)	Long bone	1
E24/S74	28A	30BB1C	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	5
E24/S74	28A	30BB1C	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S74	28A	30BB1D	Isi-c/II	L. Paleo.		Mammalia (Large)	Long bone	1
E24/S74	28A	30BB1D	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	5
E24/S74	28A	30BB1D	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S74	28A	30BB1D	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	24
E24/S74	28B	30BB2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
E24/S74	28B	30BB2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	28B	30BB2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S74	28B	30BB2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	28B	30BB2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S74	28B	30BB2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	29A	30CC1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	29A	30CC1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	29A	30CC1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	29A	30CC1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E24/S74	29A	30CC1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	29A	30CC1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E24/S74	29B	30CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S74	29B	30CC2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E24/S74	29B	30CC2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E24/S74	29B	30CC2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S74	30A	30DD1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	30A	30DD1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7
E24/S74	30A	30DD1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E24/S74	30A	30DD1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	30A	30DD1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S74	30B	30DD2A	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E24/S74	30B	30DD2B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E24/S74	30B	30DD2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E24/S74	30B	30DD2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	30B	30DD2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	30B	30DD2C	Isi-c	L. Paleo.		Testudinata	Shell fragment	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S74	30B	30DD2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	30B	30DD2D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S74	31A	30EE1	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	31A	30EE1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	31A	30EE1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	31A	30EE1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	31A	30EE1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S74	31B	30EE2A	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Long bone	1
E24/S74	31B	30EE2D	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	2
E24/S74	31B	30EE2D	Icl/Isi-c	Paleoindian		Mammalia (Small)	Femur	1
E24/S74	31B	30EE2D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	4
E24/S74	32A	30FF1B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	5
E24/S74	32B	30FF2A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E24/S74	32B	30FF2A	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S74	32B	30FF2A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E24/S74	32B	30FF2B	Icl/Isi-c	Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1
E24/S74	32B	30FF2B	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S74	32B	30FF2B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E24/S74	32B	30FF2C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E24/S74	33A	30GG1A	Icl/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	1
E24/S74	33A	30GG1B	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S74	33A	30GG1B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E24/S74	33A	30GG1C	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Podial	1
E24/S74	33A	30GG1C	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S74	33A	30GG1C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E24/S74	33B	30GG2A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E24/S74	33B	30GG2B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	2
E24/S74	33B	30GG2B	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S74	34A	30HH1A	Icl	E. Paleo.		Vertebrata	Indeterminate	4
E24/S74	34B	30HH2B	Icl	E. Paleo.		Small/Medium Vertebrata	Phalange	1
E24/S74	34B	30HH2B	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E24/S74	34B	30HH2C	Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	2
E24/S74	35A	30II1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	14
E24/S74	35A	30II1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E24/S74	35B	30II2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E24/S74	36B	30JJ2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S74	36B	30JJ2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	8
E24/S74	37A	30KK1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	37A	30KK1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E24/S74	37A	30KK1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E24/S74	37A	30KK1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	28
E24/S74	37A&B	30KK1&2	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Humerus	1
E24/S74	37A&B	30KK1&2	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	37A&B	30KK1&2	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	11
E24/S74	37A&B	30KK1&2	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	157
E24/S74	37B	30KK2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	9
E24/S74	38A	30LL1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E24/S74	38A	30LL1A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E24/S74	38A	30LL1A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S74	38A	30LL1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	38
E24/S74	38A	30LL1C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S74	38B	30LL2A	Igl/Isi	E. Paleo.		<i>Bison</i> sp.	Tibia	1
E24/S74	38B	30LL2A	Igl/Isi	E. Paleo.		Mammalia (Large)	Indeterminate	4
E24/S74	38B	30LL2A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S74	38B	30LL2A	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	6
E24/S74	38B	30LL2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	17
E24/S74	38B	30LL2C	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E24/S74	38B	30LL2C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	3
E24/S74	39A	30MM1A	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E24/S74	39A	30MM1C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	5
E24/S74	39B	30MM2A	Igl/Isi	E. Paleo.		Testudinata	Peripheral	1
E24/S74	39B	30MM2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	1
E24/S76	15	29O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	4
E24/S76	15	29O	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E24/S76	15	29O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	7
E24/S76	17A	29Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E24/S76	18A	29R1	IIIa	E. Archaic		Testudinata	Shell fragment	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S76	18A	29R1	IIIa	E. Archaic	f155	Vertebrata	Indeterminate	5
E24/S76	18B	29R2	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E24/S76	18B	29R2	IIIa	E. Archaic		Mammalia (Large)	Indeterminate	1
E24/S76	18B	29R2	IIIa	E. Archaic		Mammalia (Medium)	Middle phalange	1
E24/S76	18B	29R2	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	2
E24/S76	18B	29R2	IIIa	E. Archaic		Vertebrata	Indeterminate	10
E24/S76	19B	29S2	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S76	19B	29S2	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	4
E24/S76	19B	29S2	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	16
E24/S76	19B	29S2A	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Calcaneus	1
E24/S76	19B	29S2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S76	20A	29T1A	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S76	20A	29T1B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S76	20A	29T1C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	9
E24/S76	20B	29T2A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S76	20B	29T2B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E24/S76	20B	29T2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E24/S76	20B	29T2C	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E24/S76	20B	29T2D	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E24/S76	20B	29T2D	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E24/S76	21A	29U1A	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S76	21A	29U1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	21A	29U1B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E24/S76	21A	29U1B	II	L. Paleo.		Vertebrata	Indeterminate	6
E24/S76	21A	29U1C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	21A	29U1C	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S76	21A	29U1D	II	L. Paleo.		Vertebrata	Indeterminate	5
E24/S76	21B	29U2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	21B	29U2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	21B	29U2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S76	21B	29U2C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	21B	29U2C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E24/S76	21B	29U2C	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S76	21B	29U2D	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E24/S76	21B	29U2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	21B	29U2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	22A	29V1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E24/S76	22A	29V1A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	22A	29V1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	9
E24/S76	22A	29V1A	II	L. Paleo.		Vertebrata	Indeterminate	5
E24/S76	22A	29V1A	II	L. Paleo.		Mammalia (Large)	Tooth, perm./decid. ind.	8
E24/S76	22B	29V2A	II	L. Paleo.		Mammalia (Large)	Cranium	1
E24/S76	22B	29V2B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	22B	29V2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	22B	29V2C	II	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E24/S76	22B	29V2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	23A	29W1A	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S76	23A	29W1B	II	L. Paleo.		Vertebrata	Long bone	1
E24/S76	23A	29W1C	II	L. Paleo.		Mammalia (Large)	Long bone	1
E24/S76	23A	29W1C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	23A	29W1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	7
E24/S76	23A	29W1C	II	L. Paleo.		Vertebrata	Indeterminate	7
E24/S76	23A	29W1D	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S76	23B	29W2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	23B	29W2C	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S76	24A	29X1A	II	L. Paleo.		Aves (Large)	Distal phalange	1
E24/S76	24A	29X1A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E24/S76	24A	29X1A	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S76	24A	29X1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	24A	29X1B	II	L. Paleo.		Vertebrata	Indeterminate	7
E24/S76	24A	29X1D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	24B	29X2A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	24B	29X2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	24B	29X2C	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S76	24B	29X2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	25A	29Y1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S76	25A	29Y1A	II	L. Paleo.		Vertebrata	Indeterminate	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S76	25A	29Y1B	II	L. Paleo.		cf. Testudinata	Shell fragment	1
E24/S76	25A	29Y1B	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	25A	29Y1C	II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E24/S76	25A	29Y1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	25B	29Y2A	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	25B	29Y2D	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	25B	29Y2D	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	26A	29Z1A	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	26A	29Z1C	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S76	26A	29Z1D	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	26A	29Z1D	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	26B	29Z2A	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	26B	29Z2C	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S76	26B	29Z2D	Isi-c/Id/II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	3
E24/S76	26B	29Z2D	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	6
E24/S76	27A	29AA1	Isi-c/Id/II	L. Paleo.		<i>Bison</i> sp.	Lumbar vertebra	1
E24/S76	27A	29AA1A	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	27A	29AA1A	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	6
E24/S76	27A	29AA1B	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	7
E24/S76	27A	29AA1C	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S76	27A	29AA1C	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	8
E24/S76	27A	29AA1D	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	27A	29AA1D	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	8
E24/S76	27B	29AA2A	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E24/S76	27B	29AA2A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	6
E24/S76	27B	29AA2B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	8
E24/S76	27B	29AA2D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	7
E24/S76	28A	29BB1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	28A	29BB1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S76	28A	29BB1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S76	28A	29BB1C	Isi-c	L. Paleo.		Carnivora	Tooth, perm./decid. ind.	1
E24/S76	28A	29BB1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	28A	29BB1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	28A	29BB1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	14
E24/S76	28A	29BB1D	Isi-c	L. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	1
E24/S76	28A	29BB1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	28A	29BB1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	9
E24/S76	28B	29BB2A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S76	28B	29BB2A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E24/S76	28B	29BB2A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S76	28B	29BB2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	28B	29BB2B	Isi-c	L. Paleo.		Mammalia (Medium)	Astragalus	1
E24/S76	28B	29BB2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E24/S76	28B	29BB2C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E24/S76	28B	29BB2C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S76	28B	29BB2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	11
E24/S76	28B	29BB2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	28B	29BB2D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	28B	29BB2D	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E24/S76	28B	29BB2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	18
E24/S76	29A	29CC1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	29A	29CC1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	29A	29CC1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	29A	29CC1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	10
E24/S76	29A	29CC1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S76	29A	29CC1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	29A	29CC1D	Isi-c	L. Paleo.		Vertebrata	Long bone	3
E24/S76	29B	29CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E24/S76	29B	29CC2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	29B	29CC2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	29B	29CC2B	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
E24/S76	29B	29CC2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	13
E24/S76	29B	29CC2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	21
E24/S76	29B	29CC2C	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E24/S76	29B	29CC2D	Isi-c	L. Paleo.		Leporidae	Scapula	1
E24/S76	29B	29CC2D	Isi-c	L. Paleo.		Mammalia (Medium)	Metapodial	1
E24/S76	29B	29CC2D	Isi-c	L. Paleo.		Mammalia (Medium)	Middle phalange	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S76	29B	29CC2D	Isi-c	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E24/S76	29B	29CC2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E24/S76	29B	29CC2D	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E24/S76	30A	29DD1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	9
E24/S76	30A	29DD1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	11
E24/S76	30A	29DD1B	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E24/S76	30A	29DD1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	10
E24/S76	30A	29DD1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S76	30B	29DD2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S76	30B	29DD2B	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S76	30B	29DD2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7
E24/S76	30B	29DD2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S76	30B	29DD2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	12
E24/S76	31A	29EE1A	Isi-c	L. Paleo.		Mammalia (Medium)	Humerus	1
E24/S76	31A	29EE1A	Isi-c	L. Paleo.		Mammalia (Medium)	Metapodial	1
E24/S76	31A	29EE1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E24/S76	31A	29EE1A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E24/S76	31A	29EE1A	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S76	31A	29EE1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	11
E24/S76	31A	29EE1B	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S76	31A	29EE1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S76	31A	29EE1C	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
E24/S76	31A	29EE1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E24/S76	31A	29EE1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	31A	29EE1D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E24/S76	31B	29EE2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S76	31B	29EE2B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E24/S76	31B	29EE2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
E24/S76	31B	29EE2C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S76	31B	29EE2C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S76	31B	29EE2D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S76	31B	29EE2D	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	4
E24/S76	31B	29EE2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S76	32A	29FF1A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E24/S76	32A	29FF1A	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	3
E24/S76	32A	29FF1A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	5
E24/S76	32A	29FF1B	Icl/Isi-c	Paleoindian		Mammalia (Medium)	Phalange	1
E24/S76	32A	29FF1B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	4
E24/S76	32A	29FF1B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	11
E24/S76	32A	29FF1C	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
E24/S76	32A	29FF1C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	31
E24/S76	32A	29FF1D	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
E24/S76	32A	29FF1D	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	5
E24/S76	32A	29FF1D	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Tooth, perm./decid. ind.	1
E24/S76	32A	29FF1D	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	4
E24/S76	32A	29FF1D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	38
E24/S76	32B	29FF2A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
E24/S76	32B	29FF2A	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
E24/S76	32B	29FF2A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E24/S76	32B	29FF2B	Icl/Isi-c	Paleoindian		Mammalia (Medium)	Distal phalange	1
E24/S76	32B	29FF2B	Icl/Isi-c	Paleoindian		Mammalia (Medium)	Podial	1
E24/S76	32B	29FF2B	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	4
E24/S76	32B	29FF2B	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Long bone	1
E24/S76	32B	29FF2B	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	3
E24/S76	32B	29FF2B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	4
E24/S76	32B	29FF2C	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E24/S76	32B	29FF2C	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S76	32B	29FF2C	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S76	32B	29FF2C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E24/S76	32B	29FF2D	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	3
E24/S76	32B	29FF2D	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	3
E24/S76	32B	29FF2D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	10
E24/S76	33A	29GG1A	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	4
E24/S76	33A	29GG1A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	19
E24/S76	33A	29GG1B	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S76	33A	29GG1B	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S76	33A	29GG1C	Icl/Isi-c	Paleoindian		Mammalia (Medium)	Middle phalange	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S76	33A	29GG1C	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E24/S76	33A	29GG1C	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S76	33A	29GG1C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	7
E24/S76	33A	29GG1D	Icl/Isi-c	Paleoindian		<i>Lepus californicus</i>	Astragalus	1
E24/S76	33A	29GG1D	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E24/S76	33A	29GG1D	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
E24/S76	33A	29GG1D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E24/S76	33B	29GG2A	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S76	33B	29GG2A	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S76	33B	29GG2A	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E24/S76	33B	29GG2B	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	3
E24/S76	33B	29GG2B	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Long bone	1
E24/S76	33B	29GG2B	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	5
E24/S76	33B	29GG2C	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E24/S76	33B	29GG2D	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Calcaneus	1
E24/S76	33B	29GG2D	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Indeterminate	3
E24/S76	33B	29GG2D	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S76	33B	29GG2D	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	11
E24/S76	34A	29HH1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S76	34A	29HH1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	34A	29HH1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E24/S76	34A	29HH1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	8
E24/S76	34A	29HH1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E24/S76	34A	29HH1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	8
E24/S76	34A	29HH1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E24/S76	34B	29HH2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E24/S76	35A	29II1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E24/S76	35B	29II2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E24/S76	35B	29II2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	8
E24/S76	35B	29II2D	Isi/Icl	E. Paleo.		Mammalia (Large)	Indeterminate	1
E24/S76	35B	29II2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	9
E24/S76	36A	29JJ1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E24/S76	36A	29JJ1C	Isi/Icl/D	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	36A	29JJ1C	Isi/Icl/D	E. Paleo.		Vertebrata	Indeterminate	9
E24/S76	36A	29JJ1D	Isi/Icl/D	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	36A	29JJ1D	Isi/Icl/D	E. Paleo.		Vertebrata	Indeterminate	1
E24/S76	36A	29JJ1D	Isi/Icl/D	E. Paleo.		Vertebrata	Long bone	3
E24/S76	36B	29JJ2B	Isi/Icl	E. Paleo.		Carnivora	Mandible	1
E24/S76	36B	29JJ2B	Isi/Icl	E. Paleo.		Carnivora	Permanent tooth	1
E24/S76	36B	29JJ2B	Isi/Icl	E. Paleo.		Mammalia (Medium)	Long bone	1
E24/S76	36B	29JJ2B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	36B	29JJ2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	7
E24/S76	36B	29JJ2C	Isi/Icl/D	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	36B	29JJ2C	Isi/Icl/D	E. Paleo.		Vertebrata	Indeterminate	1
E24/S76	36B	29JJ2D	Isi/Icl/D	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	37A	29KK1C	Isi/Icl/D	E. Paleo.		Vertebrata	Indeterminate	10
E24/S76	37A	29KK1D	Isi/Icl/D	E. Paleo.		Mammalia (Large)	Indeterminate	1
E24/S76	37A	29KK1D	Isi/Icl/D	E. Paleo.		Vertebrata	Indeterminate	4
E24/S76	37B	29KK2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	5
E24/S76	37B	29KK2C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S76	37B	29KK2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	17
E24/S76	38A	29LL1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E24/S76	38A	29LL1B	Isi/Icl	E. Paleo.		Mammalia (Very large)	Indeterminate	1
E24/S76	38A	29LL1B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	7
E24/S76	38A	29LL1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	60
E24/S76	38A	29LL1D	Isi/Icl	E. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	1
E24/S76	38B	29LL2A	Igl/Isi	E. Paleo.		<i>Bison</i> sp.	Scapula	1
E24/S76	38B	29LL2A	Igl/Isi	E. Paleo.		Mammalia (Large)	Indeterminate	1
E24/S76	38B	29LL2A	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	6
E24/S76	38B	29LL2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	32
E24/S76	38B	29LL2B	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S76	38B	29LL2B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	17
E24/S76	38B	29LL2D	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	2
E24/S76	39A	29MM1A	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	39A	29MM1C	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S76	39A	29MM1C	Isi	E. Paleo.		Vertebrata	Indeterminate	10
E24/S76	39B	29MM2A	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	9

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S76	39B	29MM2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	19
E24/S76	39B	29MM2C	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S76	39B	29MM2C	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S76	40A	29NN1A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E24/S76	40A	29NN1A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	17
E24/S78	15	28O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	9
E24/S78	15	28O	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E24/S78	15	28O	IIIa/b	E. Archaic		Medium/Large Vertebrata	Long bone	1
E24/S78	15	28O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	2
E24/S78	16A	28P1	IIIa	E. Archaic		Vertebrata	Indeterminate	5
E24/S78	16B	28P2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E24/S78	16B	28P2	IIIa	E. Archaic		Vertebrata	Indeterminate	6
E24/S78	17A	28Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E24/S78	18A	28R1	IIIa	E. Archaic		Vertebrata	Indeterminate	7
E24/S78	18B	28R2	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E24/S78	19A	28S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Middle phalange	1
E24/S78	19A	28S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Proximal phalange	1
E24/S78	19A	28S1	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E24/S78	19A	28S1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E24/S78	19B	28S2A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S78	19B	28S2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S78	19B	28S2C	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	1
E24/S78	19B	28S2D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E24/S78	20A	28T1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	20A	28T1B	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S78	20A	28T1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S78	20A	28T1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	20A	28T1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	20B	28T2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	20B	28T2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	20B	28T2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S78	20B	28T2D	II	L. Paleo.		Mammalia (Medium/large)	Caudal vertebra	1
E24/S78	21A	28U1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S78	21A	28U1A	II	L. Paleo.		Vertebrata	Indeterminate	8
E24/S78	21A	28U1B	II	L. Paleo.		Vertebrata	Indeterminate	7
E24/S78	21A	28U1C	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S78	21B	28U2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	21B	28U2B	II	L. Paleo.		Vertebrata	Long bone	1
E24/S78	21B	28U2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S78	21B	28U2D	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S78	22A	28V1A	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S78	22A	28V1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S78	22A	28V1B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E24/S78	22A	28V1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S78	22A	28V1C	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S78	22A	28V1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	22B	28V2A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S78	22B	28V2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S78	22B	28V2D	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E24/S78	22B	28V2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S78	23A	28W1A	II	L. Paleo.		Mammalia (Large)	Indeterminate	1
E24/S78	23A	28W1A	II	L. Paleo.		Vertebrata	Indeterminate	3
E24/S78	23A	28W1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S78	23A	28W1B	II	L. Paleo.		Vertebrata	Indeterminate	2
E24/S78	23A	28W1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S78	23A	28W1C	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S78	23B	28W2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E24/S78	23B	28W2A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S78	23B	28W2B	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S78	23B	28W2B	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S78	23B	28W2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S78	23B	28W2D	II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S78	24A	28X1A	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	24A	28X1B	Id/II	L. Paleo.		Mammalia (Medium)	Middle phalange	1
E24/S78	24A	28X1B	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	24A	28X1C	Id/II	L. Paleo.	f161	Medium/Large Vertebrata	Indeterminate	1
E24/S78	24B	28X2B	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S78	24B	28X2B	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S78	24B	28X2C	Id/II	L. Paleo.		Mammalia (Large)	Long bone	2
E24/S78	24B	28X2C	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S78	24B	28X2C	Id/II	L. Paleo.		Vertebrata	Indeterminate	20
E24/S78	24B	28X2D	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S78	25A	28Y1A	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S78	25A	28Y1B	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E24/S78	25A	28Y1B	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S78	25A	28Y1B	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	25A	28Y1C	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	5
E24/S78	25A	28Y1C	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	25A	28Y1D	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S78	25B	28Y2B	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E24/S78	25B	28Y2B	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E24/S78	25B	28Y2B	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E24/S78	25B	28Y2B	Id/II	L. Paleo.		Vertebrata	Indeterminate	7
E24/S78	25B	28Y2D	Id/II	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E24/S78	25B	28Y2D	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S78	26A	28Z1A	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	4
E24/S78	26A	28Z1B	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S78	26A	28Z1C	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	26A	28Z1D	Isi-c/Id/II	L. Paleo.		Mammalia (Large)	Scapula	2
E24/S78	26A	28Z1D	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E24/S78	26A	28Z1D	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	9
E24/S78	26A	28Z1D	Isi-c/Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E24/S78	26A	28Z1D	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	22
E24/S78	26B	28Z2A	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S78	26B	28Z2A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	26B	28Z2B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	5
E24/S78	26B	28Z2C	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	2
E24/S78	26B	28Z2D	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	26B	28Z2D	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Ulna	1
E24/S78	26B	28Z2D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	13
E24/S78	27A	28AA1A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	5
E24/S78	27A	28AA1B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	2
E24/S78	27A	28AA1D	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S78	27A	28AA1D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	6
E24/S78	27B	28AA2	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	27B	28AA2A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	9
E24/S78	27B	28AA2B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	4
E24/S78	27B	28AA2B	Isi-c/Id	L. Paleo.		Vertebrata	Long bone	2
E24/S78	27B	28AA2D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	28A	28BB1A	Isi-c/Id	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Third carpal bone	1
E24/S78	28A	28BB1A	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S78	28A	28BB1A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	10
E24/S78	28A	28BB1B	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	28A	28BB1B	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S78	28A	28BB1B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	8
E24/S78	28A	28BB1C	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	28A	28BB1D	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	28A	28BB1D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	28A	28BB1D	Isi-c/Id	L. Paleo.		Vertebrata	Long bone	1
E24/S78	28B	28BB2A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E24/S78	28B	28BB2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S78	28B	28BB2B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E24/S78	28B	28BB2B	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S78	28B	28BB2B	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
E24/S78	28B	28BB2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	28B	28BB2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	3
E24/S78	28B	28BB2C	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E24/S78	28B	28BB2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	28B	28BB2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	29A	28CC1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7
E24/S78	29A	28CC1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E24/S78	29A	28CC1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E24/S78	29A	28CC1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E24/S78	29B	28CC2A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E24/S78	29B	28CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E24/S78	29B	28CC2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7
E24/S78	29B	28CC2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S78	29B	28CC2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E24/S78	30A	28DD1B	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E24/S78	30A	28DD1C	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	12
E24/S78	30B	28DD2A	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	11
E24/S78	30B	28DD2A	Isi/Isi-c	Paleoindian		Vertebrata	Long bone	1
E24/S78	30B	28DD2B	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	4
E24/S78	31A	28EE1B	Isi/Isi-c	Paleoindian		Leporidae	Ulna	1
E24/S78	31A	28EE1C	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S78	31B	28EE2A	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E24/S78	31B	28EE2A	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S78	31B	28EE2A	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S78	31B	28EE2C	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S78	31B	28EE2D	Isi/Isi-c	Paleoindian		<i>Bison</i> sp.	Tibia	1
E24/S78	31B	28EE2D	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	5
E24/S78	31B	28EE2D	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Long bone	1
E24/S78	31B	28EE2D	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	8
E24/S78	31B	F170	Isi	E. Paleo.	f170	Large vertebrate, class ind.	Indeterminate	2
E24/S78	31B	F170	Isi	E. Paleo.	f170	Mammalia (Medium/large)	Indeterminate	25
E24/S78	31B	F170	Isi	E. Paleo.	f170	Mammalia (Medium/large)	Long bone	5
E24/S78	31B	F170	Isi	E. Paleo.	f170	Mammalia (Very large)	Long bone	2
E24/S78	31B	F170	Isi	E. Paleo.	f170	Vertebrata	Indeterminate	29
E24/S78	32A	28FF1A	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	5
E24/S78	32A	28FF1A	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	6
E24/S78	32A	28FF1B	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S78	32B	28FF2B	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	5
E24/S78	32B	28FF2B	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E24/S78	32B	28FF2C	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E24/S78	33A	28GG1A	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E24/S78	33A	28GG1A	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E24/S78	33A	28GG1A	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	11
E24/S78	33A	28GG1B	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	7
E24/S78	33A	28GG1C	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E24/S78	33A	28GG1D	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E24/S78	33A	28GG1D	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E24/S78	33B	28GG2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	8
E24/S78	33B	28GG2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E24/S78	33B	28GG2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E24/S78	34A	28HH1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E24/S78	34A	28HH1A	Isi/Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S78	34A	28HH1B	Isi/Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E24/S78	34A	28HH1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E24/S78	34B	28HH2A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E24/S78	34B	28HH2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	7
E24/S78	34B	28HH2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E24/S78	35A	28II1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	35A	28II1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	5
E24/S78	35A	28II1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	35A	28II1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E24/S78	35B	28II2A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	36A	28JJ1B	Isi/D	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E24/S78	36A	28JJ1B	Isi/D	E. Paleo.		Vertebrata	Indeterminate	6
E24/S78	36A	28JJ1C	Isi	E. Paleo.		Vertebrata	Indeterminate	3
E24/S78	36B	28JJ2A	Isi/D	E. Paleo.		Vertebrata	Indeterminate	1
E24/S78	36B	28JJ2B	Isi/D	E. Paleo.		Vertebrata	Indeterminate	5
E24/S78	37A	28KK1A	Isi/D	E. Paleo.		Vertebrata	Indeterminate	4
E24/S78	37B	28KK2A	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E24/S78	38A	28LL1A	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	16A	35P1	IIIa	E. Archaic		Mammalia (Large)	Indeterminate	1
E26/S72	16A	35P1	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E26/S72	17A	35Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E26/S72	17B	35Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E26/S72	18B	35R2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E26/S72	18B	35R2	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E26/S72	18B	35R2	IIIa	E. Archaic		Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S72	19A	35S1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E26/S72	19A	35S1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E26/S72	19B	35S2B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E26/S72	19B	35S2D	II/IIIa	L. Paleo./E. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E26/S72	20A	35T1B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E26/S72	20A	35T1B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	15
E26/S72	20B	35T2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S72	20B	35T2C	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E26/S72	20B	35T2C	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E26/S72	20B	35T2D	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E26/S72	20B	35T2D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S72	21A	35U1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	21A	35U1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	21A	35U1C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	21A	35U1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S72	21A	35U1C	II	L. Paleo.		Testudinata	Shell fragment	1
E26/S72	21A	35U1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	21B	35U2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	21B	35U2A	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S72	21B	35U2B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S72	21B	35U2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	22A	35V1A	II	L. Paleo.	f157	Mammalia (Medium/large)	Indeterminate	1
E26/S72	22A	35V1A	II	L. Paleo.	f157	Mammalia (Medium/large)	Long bone	1
E26/S72	22A	35V1A	II	L. Paleo.	f157	Small/Medium Vertebrata	Long bone	1
E26/S72	22A	35V1A	II	L. Paleo.	f157	Vertebrata	Indeterminate	2
E26/S72	22A	35V1C	II	L. Paleo.	f157	Mammalia (Medium/large)	Long bone	1
E26/S72	22A	35V1D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S72	22B	35V2A	II	L. Paleo.	f157	Mammalia (Medium/large)	Indeterminate	1
E26/S72	22B	35V2B	II	L. Paleo.	f157	Vertebrata	Indeterminate	1
E26/S72	22B	35V2D	II	L. Paleo.	f157	Carnivora	Proximal phalange	1
E26/S72	22B	35V2D	II	L. Paleo.	f157	Vertebrata	Indeterminate	2
E26/S72	23A	35W1A	II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S72	23A	35W1C	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S72	23B	35W2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	23B	35W2A	II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E26/S72	23B	35W2A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S72	23B	35W2A	II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S72	23B	35W2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	23B	35W2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	23B	35W2C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S72	23B	35W2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	23B	35W2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S72	24A	35X1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	24A	35X1B	II	L. Paleo.		Mammalia (Medium)	Radius	1
E26/S72	24A	35X1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	24B	35X2A	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S72	24B	35X2A	II	L. Paleo.		Vertebrata	Indeterminate	7
E26/S72	24B	35X2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	24B	35X2C	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S72	24B	35X2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	24B	35X2D	II	L. Paleo.		Mammalia (Medium/large)	Vertebra	1
E26/S72	24B	35X2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	25A	35Y1A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S72	25A	35Y1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	25A	35Y1B	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E26/S72	25A	35Y1B	II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S72	25A	35Y1D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	25B	35Y2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	25B	35Y2A	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S72	25B	35Y2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	25B	35Y2C	II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E26/S72	25B	35Y2C	II	L. Paleo.		Vertebrata	Indeterminate	8
E26/S72	25B	35Y2D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	25B	35Y2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S72	25B	35Y2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	26A	35Z1B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S72	26A	35Z1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S72	26B	35Z2A	II	L. Paleo.		Leporidae	Permanent tooth	1
E26/S72	26B	35Z2A	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S72	26B	35Z2B	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S72	26B	35Z2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	26B	35Z2D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	26B	35Z2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	26B	35Z2D	II	L. Paleo.		Vertebrata	Indeterminate	5
E26/S72	27A	35AA1C	II	L. Paleo.		Vertebrata	Indeterminate	8
E26/S72	27B	35AA2	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	27B	35AA2A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S72	27B	35AA2B	II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S72	27B	35AA2B	II	L. Paleo.		Vertebrata	Indeterminate	8
E26/S72	27B	35AA2D	II	L. Paleo.		Vertebrata	Indeterminate	7
E26/S72	28A	35BB1B	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S72	28A	35BB1C	II	L. Paleo.		Mammalia (Medium)	Middle phalange	1
E26/S72	28A	35BB1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	28A	35BB1D	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S72	28A	35BB1D	II	L. Paleo.		Vertebrata	Long bone	1
E26/S72	28B	35BB2A	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	28B	35BB2B	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E26/S72	28B	35BB2C	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	28B	35BB2C	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	9
E26/S72	28B	35BB2D	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	28B	35BB2D	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S72	28B	35BB2D	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	28B	35BB2D	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S72	29A	35CC1A	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	5
E26/S72	29A	35CC1C	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	6
E26/S72	29A	35CC1D	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	30A	35DD1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	30A	35DD1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	30A	35DD1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E26/S72	30B	35DD2	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	30B	35DD2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	30B	35DD2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	30B	35DD2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E26/S72	31A	35EE1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S72	31B	35EE2C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S72	31B	35EE2C	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S72	31B	35EE2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E26/S72	31B	35EE2D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	31B	35EE2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	32A	35FF1A	Isi-c	L. Paleo.		Leporidae	Calcaneus	1
E26/S72	32A	35FF1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	32A	35FF1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S72	32A	35FF1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S72	32A	35FF1C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	32A	35FF1C	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S72	32A	35FF1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E26/S72	33A	35GG1B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	4
E26/S72	34B	35HH2A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E26/S72	35A	35II1A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S72	35A	35II1D	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S72	35B	35II2C	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S72	36A	35JJ1A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S72	36A	35JJ1B	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S72	36B	35JJ2D	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S72	37A	35KK1A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S72	37A	35KK1B	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	37A	35KK1D	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S72	37B	35KK2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	5
E26/S72	37B	35KK2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S72	37B	35KK2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	48
E26/S72	38A	35LL1A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	38A	35LL1B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	38A	35LL1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S72	38A	35LL1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Cranium	1
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	6
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Mammalia (Large)	Long bone	1
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Mammalia (Large/very large)	Indeterminate	1
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	25
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S72	38B-39A	35LL2/M	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E26/S72	39B	35MM2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E26/S72	39B	35MM2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	5
E26/S72	39B	35MM2C	Isi/Icl	E. Paleo.		Mammalia (Small/medium)	Tooth, perm./decid. ind.	1
E26/S72	39B	35MM2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S72	40A&B	35NN1&2	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	21
E26/S72	40A&B	35NN1&2	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	18
E26/S72	40A&B	35NN1&2	Isi/Icl	E. Paleo.		Mammalia (Very large)	Long bone	1
E26/S72	40A&B	35NN1&2	Isi/Icl	E. Paleo.		Mammalia (Large/very large)	Flat bone	1
E26/S72	40A&B	35NN1&2	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Fused central/fourth tarsal	1
E26/S72	40A&B	35NN1&2	Isi/Icl	E. Paleo.		cf. <i>Bison</i>	Rib	1
E26/S72	40A&B	35NN1&2	Isi/Icl	E. Paleo.		Mammalia (Large)	Indeterminate	1
E26/S72	40A&B	35NN1&2	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E26/S72	40A&B	35NN1&2	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	45
E26/S72	41A	35OO1-2I	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S72	41A	35OO1-2C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	34
E26/S72	41A	35OO1-2I	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	52
E26/S72	41A	35OO1A	Igl/Isi	E. Paleo.		Mammalia (Large)	Rib	1
E26/S72	41A	35OO1A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	6
E26/S72	41A	35OO1A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	45
E26/S72	41A	35OO1B	Igl/Isi	E. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	1
E26/S72	41A	35OO1B	Igl/Isi	E. Paleo.		Leporidae	Permanent tooth	8
E26/S72	41A	35OO1B	Igl/Isi	E. Paleo.		Mammalia (Large)	Long bone	1
E26/S72	41A	35OO1B	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E26/S72	41A	35OO1B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	25
E26/S72	41A	35OO1C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	47
E26/S72	41A	35OO1D	Igl/Isi	E. Paleo.		Leporidae	Permanent tooth	1
E26/S72	41A	35OO1D	Igl/Isi	E. Paleo.		Mammalia (Large)	Indeterminate	1
E26/S72	41A	35OO1D	Igl/Isi	E. Paleo.		Mammalia (Large)	Long bone	1
E26/S72	41A	35OO1D	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	9
E26/S72	41A	35OO1D	Igl/Isi	E. Paleo.		Mammalia (Small)	Tooth, perm./decid. ind.	7
E26/S72	41A	35OO1D	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	67
E26/S72	41A&B	35OO1&2	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S72	41A&B	35OO1&2	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	12
E26/S72	41B	35OO2A	Igl/Isi	E. Paleo.		Large vertebrate, class ind.	Indeterminate	5
E26/S72	41B	35OO2A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S72	41B	35OO2A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S72	41B	35OO2A	Igl/Isi	E. Paleo.		Mammalia (Very large)	Indeterminate	5
E26/S72	41B	35OO2A	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	8
E26/S72	41B	35OO2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	30
E26/S72	41B	35OO2B	Igl/Isi	E. Paleo.		<i>Bison</i> sp.	Cervical vertebra	1
E26/S72	41B	35OO2B	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S72	41B	35OO2B	Igl/Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S72	41B	35OO2B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	24
E26/S72	41B	35OO2C	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S72	41B	35OO2C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	59
E26/S72	42A	35PP1A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	7
E26/S72	42A	35PP1A	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S72	42A	35PP1A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	19
E26/S74	15	34O	IIIa/b	E. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metacarpal	1
E26/S74	15	34O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E26/S74	15	34O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	5
E26/S74	15	34O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	3
E26/S74	16A	34P1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E26/S74	17A	34Q1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E26/S74	17A	34Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	4
E26/S74	17B	34Q2	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S74	17B	34Q2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E26/S74	17B	34Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	2
E26/S74	18A	34R1	IIIa	E. Archaic		Testudinata	Shell fragment	1
E26/S74	18A	34R1	IIIa	E. Archaic		Vertebrata	Indeterminate	7
E26/S74	18B	34R2	IIIa	E. Archaic		Vertebrata	Indeterminate	15
E26/S74	19A	34S1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E26/S74	19A	34S1	IIIa	E. Archaic		Vertebrata	Indeterminate	7
E26/S74	19A	F140	IIIa	E. Archaic	f140	Vertebrata	Indeterminate	1
E26/S74	20A	34T1A	II/IIIa	L. Paleo./E. Archaic	f146	Mammalia (Medium/large)	Indeterminate	1
E26/S74	20A	34T1A	II/IIIa	L. Paleo./E. Archaic	f146	Mammalia (Medium/large)	Long bone	1
E26/S74	20A	34T1A	II/IIIa	L. Paleo./E. Archaic	f146	Medium/Large Vertebrata	Indeterminate	1
E26/S74	20A	34T1B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E26/S74	20A	34T1C	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	2
E26/S74	20A	34T1C	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
E26/S74	20A	34T1C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	4
E26/S74	20A	34T1D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S74	20B	34T2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S74	20B	34T2C	II/IIIa	L. Paleo./E. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E26/S74	20B	34T2C	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E26/S74	20B	34T2C	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E26/S74	20B	34T2C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	4
E26/S74	20B	34T2D	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E26/S74	21A	34U1C	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E26/S74	21A	34U1C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S74	21A	34U1D	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E26/S74	21B	34U2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S74	21B	34U2B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	21B	34U2B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	21B	34U2B	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	21B	34U2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	21B	34U2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	22A	34&35V1	II	L. Paleo.	f146	Vertebrata	Indeterminate	2
E26/S74	22A	34V1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	22A	34V1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	22A	34V1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	22A	34V1D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S74	22A	34V1D	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	22B	34V2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	22B	34V2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	22B	34V2D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	23A	34W1B	II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S74	23A	34W1C	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S74	23A	34W1D	II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S74	23B	34W2B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	23B	34W2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	24A	34X1C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	24A	34X1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	24A	34X1D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	24A	34X1D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S74	24A	34X1D	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	24B	34X2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	24B	34X2A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S74	24B	34X2A	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S74	24B	34X2B	II	L. Paleo.		Mammalia (Medium)	Pelvis	1
E26/S74	24B	34X2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	24B	34X2C	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E26/S74	24B	34X2C	II	L. Paleo.		Mammalia (Large)	Indeterminate	2
E26/S74	24B	34X2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	24B	34X2C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S74	24B	34X2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	24B	34X2C	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S74	24B	34X2C	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S74	24B	34X2D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	24B	34X2D	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S74	25A	34Y1A	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
E26/S74	25A	34Y1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	25A	34Y1C	II	L. Paleo.		Vertebrata	Indeterminate	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S74	25A	34Y1D	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	25B	34Y2A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S74	25B	34Y2A	II	L. Paleo.		Vertebrata	Indeterminate	5
E26/S74	25B	34Y2C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	25B	34Y2D	II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S74	26A	34Z1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	26B	34Z2A	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S74	26B	34Z2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	26B	34Z2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E26/S74	26B	34Z2D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	26B	34Z2D	II	L. Paleo.		Vertebrata	Indeterminate	5
E26/S74	27A	34AA1B	II	L. Paleo.		Vertebrata	Indeterminate	12
E26/S74	27A	34AA1D	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	27B	34AA2B	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	27B	34AA2B	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S74	27B	34AA2C	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	28A	34BB1A	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S74	28A	34BB1A	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	28A	34BB1A	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S74	28A	34BB1B	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	5
E26/S74	28A	34BB1C	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S74	28A	34BB1C	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Rib	1
E26/S74	28A	34BB1C	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Vertebra	1
E26/S74	28A	34BB1C	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	28A	34BB1D	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S74	28A	34BB1D	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
E26/S74	28B	34BB2A	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	28B	34BB2B	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	28B	34BB2D	Isi-c/II	L. Paleo.		Vertebrata	Long bone	2
E26/S74	29A	34CC1A	Isi-c	L. Paleo.		Leporidae	Permanent tooth	1
E26/S74	29A	34CC1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E26/S74	29A	34CC1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E26/S74	29A	34CC1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	29B	34CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
E26/S74	29B	34CC2A	Isi-c	L. Paleo.		Vertebrata	Tooth, perm./decid. ind.	1
E26/S74	29B	34CC2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S74	29B	34CC2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	12
E26/S74	29B	34CC2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E26/S74	30A	34DD1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	30A	34DD1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	30A	34DD1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E26/S74	30A	34DD1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E26/S74	30A	34DD1D	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E26/S74	30B	34DD2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	30B	34DD2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E26/S74	30B	34DD2D	Isi-c	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Proximal abaxial sesamoid	1
E26/S74	30B	34DD2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E26/S74	31A	34EE1A	Isi-c	L. Paleo.		Mammalia (Small)	Metapodial	1
E26/S74	31A	34EE1A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S74	31A	34EE1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	12
E26/S74	31A	34EE1B	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	31B	34EE2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	31B	34EE2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	31B	34EE2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E26/S74	31B	34EE2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	32A	34FF1A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	32A	34FF1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S74	32A	34FF1D	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E26/S74	32A	34FF1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	32B	34FF2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S74	33A	34GG1D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E26/S74	33B	34GG2A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E26/S74	33B	34GG2B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E26/S74	33B	34GG2B	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E26/S74	33B	34GG2B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E26/S74	33B	34GG2C	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E26/S74	34A	34HH1A	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S74	34A	34HH1C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E26/S74	34B	34HH2A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S74	34B	34HH2B	Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S74	34B	34HH2C	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	34B	34HH2C	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	35A	34II1A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S74	35B	34II2B	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S74	35B	34II2D	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S74	36A	34JJ1C	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S74	36A	34JJ1D	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	36A	34JJ1D	Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	37A	34KK1A	Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S74	37A	34KK1C	Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S74	37B	34KK2B	Icl	E. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	1
E26/S74	37B	34KK2C	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S74	37B	34KK2C	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S74	38A	34LL1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S74	38B-39A	34LL2/M	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	38B-39A	34LL2/M	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	38B-39A	34LL2/M	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	9
E26/S74	38B-39A	34LL2/M	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	38B-39A	34LL2/M	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S74	38B-39A	34LL2/M	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	9
E26/S74	40A	34NN1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S74	40A	34NN1A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S74	40A	34NN1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	11
E26/S74	40A	34NN1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S74	40A	34NN1B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	40A	34NN1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	5
E26/S74	40A	34NN1C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	6
E26/S74	40A	34NN1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	16
E26/S74	40A	34NN1D	Isi/Icl	E. Paleo.		Mammalia (Large)	Long bone	1
E26/S74	40A	34NN1D	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	5
E26/S74	40A	34NN1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	9
E26/S74	40B	34NN2A	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S74	40B	34NN2A	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E26/S74	40B	34NN2A	Isi	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S74	40B	34NN2B	Isi	E. Paleo.		cf. <i>Bison</i>	Vertebra	1
E26/S74	40B	34NN2B	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	9
E26/S74	40B	34NN2B	Isi	E. Paleo.		Vertebrata	Indeterminate	18
E26/S74	40B	34NN2C	Isi	E. Paleo.		Mammalia (Large)	Indeterminate	2
E26/S74	40B	34NN2C	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E26/S74	40B	34NN2C	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E26/S74	40B	34NN2C	Isi	E. Paleo.		Vertebrata	Indeterminate	17
E26/S74	40B	34NN2D	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S74	40B	34NN2D	Isi	E. Paleo.		Vertebrata	Indeterminate	6
E26/S74	41A&B	34OO1&2	Igl/Isi	E. Paleo.		<i>Bison</i> sp.	Astragalus	1
E26/S74	41B	34OO2A	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	38
E26/S74	41B	34OO2B	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	9
E26/S74	41B	34OO2B	Igl/Isi	E. Paleo.		Mammalia (Medium/large)	Long bone	5
E26/S74	41B	34OO2B	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	43
E26/S74	41B	34OO2C	Igl/Isi	E. Paleo.		Vertebrata	Indeterminate	4
E26/S76	15	33O	IIIa/b	E. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
E26/S76	15	33O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	5
E26/S76	17A	33Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E26/S76	18A	33R1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E26/S76	18A	33R1	IIIa	E. Archaic		Vertebrata	Indeterminate	12
E26/S76	18B	33R2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E26/S76	18B	33R2	IIIa	E. Archaic		Mammalia (Small/medium)	Proximal phalange	1
E26/S76	18B	33R2	IIIa	E. Archaic		Testudinata	Shell fragment	1
E26/S76	18B	33R2	IIIa	E. Archaic		Vertebrata	Indeterminate	6
E26/S76	19A	33S1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E26/S76	19B	33S2A	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
E26/S76	19B	33S2A	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	2
E26/S76	19B	33S2A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	4
E26/S76	19B	33S2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S76	19B	33S2D	II/IIIa	L. Paleo./E. Archaic		Mammalia (Large)	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S76	19B	33S2D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S76	20A	33T1B	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Astragalus	1
E26/S76	20A	33T1B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E26/S76	20A	33T1B	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E26/S76	20A	33T1B	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E26/S76	20A	33T1B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S76	20A	33T1C	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E26/S76	20A	33T1C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
E26/S76	20B	33T2C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S76	20B	33T2D	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E26/S76	20B	33T2D	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
E26/S76	20B	33T2D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
E26/S76	21A	33U1A	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E26/S76	21A	33U1B	II/IIIa	L. Paleo./E. Archaic		Leporidae	Ulna	1
E26/S76	21A	33U1B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E26/S76	21A	33U1D	II/IIIa	L. Paleo./E. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
E26/S76	21A	33U1D	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S76	21B	33U2C	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Carpal	1
E26/S76	21B	33U2C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S76	21B	33U2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	21B	33U2D	II	L. Paleo.		Mammalia (Large)	Indeterminate	1
E26/S76	21B	33U2D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S76	21B	33U2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	22A	33V1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	22A	33V1B	II	L. Paleo.		Mammalia (Medium/large)	Cranium	1
E26/S76	22A	33V1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	22A	33V1B	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S76	22A	33V1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	22B	33V2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S76	22B	33V2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	22B	33V2B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S76	22B	33V2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E26/S76	22B	33V2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S76	23A	33W1A	II	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E26/S76	23A	33W1A	II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S76	23A	33W1B	II	L. Paleo.		Mammalia (Medium/large)	Caudal vertebra	2
E26/S76	23A	33W1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	23A	33W1B	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	23A	33W1C	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Metatarsal	1
E26/S76	23A	33W1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S76	23A	33W1C	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S76	23A	33W1D	II	L. Paleo.		Mammalia (Large)	Indeterminate	1
E26/S76	23B	33W2	II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	6
E26/S76	23B	33W2	II	L. Paleo.		Vertebrata	Indeterminate	14
E26/S76	23B	33W2A	II	L. Paleo.		Mammalia (Large)	Indeterminate	1
E26/S76	23B	33W2A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	23B	33W2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	23B	33W2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S76	23B	33W2D	II	L. Paleo.		Vertebrata	Indeterminate	7
E26/S76	24A	33X1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	24A	33X1A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S76	24A	33X1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	24A	33X1D	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E26/S76	24B	33X2A	II	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Phalange	1
E26/S76	24B	33X2A	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S76	24B	33X2B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S76	24B	33X2B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S76	24B	33X2B	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S76	24B	33X2D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	24B	33X2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	25A	33Y1A	II	L. Paleo.		Mammalia (Medium)	Middle phalange	1
E26/S76	25A	33Y1A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S76	25A	33Y1C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S76	25A	33Y1C	II	L. Paleo.		Small/Medium Vertebrata	Phalange	1
E26/S76	25A	33Y1C	II	L. Paleo.		Small/Medium Vertebrata	Proximal phalange	1
E26/S76	25A	33Y1C	II	L. Paleo.		Vertebrata	Indeterminate	5
E26/S76	25A	33Y1D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	6

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S76	25A	33Y1D	II	L. Paleo.	f164	Vertebrata	Indeterminate	2
E26/S76	25B	33Y2A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S76	25B	33Y2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	25B	33Y2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	25B	33Y2B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E26/S76	25B	33Y2D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S76	25B	33Y2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	26A	33Z1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	26A	33Z1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S76	26A	33Z1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	26A	33Z1C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	26A	33Z1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	26A	33Z1D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S76	26B	33Z2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	26B	33Z2B/D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S76	26B	33Z2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	26B	33Z2C	II	L. Paleo.		Vertebrata	Indeterminate	5
E26/S76	26B	F164	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	27A	33AA1A	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S76	27A	33AA1B	Id/II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S76	27A	33AA2C	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	27A	33AA1C	Id/II	L. Paleo.		Vertebrata	Indeterminate	6
E26/S76	27A	33AA1D	Id/II	L. Paleo.		Vertebrata	Long bone	1
E26/S76	27B	33AA2A	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	27B	33AA2B	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	27B	33AA2C	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S76	27B	33AA2D	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	27B	33AA2D	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S76	28A	33BB1C	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	28A	33BB1C	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	28A	33BB1D	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	3
E26/S76	28A	33BB1D	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	28B	33BB2B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	4
E26/S76	28B	33BB2C	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	5
E26/S76	28B	33BB2D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	9
E26/S76	28B	33BB2D	Isi-c/Id	L. Paleo.		Vertebrata	Long bone	1
E26/S76	29A	33CC1A	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Vertebra	1
E26/S76	29A	33CC1A	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S76	29A	33CC1A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	7
E26/S76	29A	33CC1B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	4
E26/S76	29A	33CC1C	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S76	29A	33CC1C	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S76	29A	33CC1C	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	13
E26/S76	29A	33CC1D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	3
E26/S76	29B	33CC2A	Isi-c	L. Paleo.		Mammalia (Large)	Long bone	1
E26/S76	29B	33CC2A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	29B	33CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	13
E26/S76	29B	33CC2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	9
E26/S76	29B	33CC2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E26/S76	29B	33CC2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E26/S76	30A	33DD1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S76	30A	33DD1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	30A	33DD1B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	30A	33DD1B	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S76	30A	33DD1C	Isi-c	L. Paleo.		Mammalia (Medium)	Vertebra	1
E26/S76	30A	33DD1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S76	30A	33DD1C	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E26/S76	30A	33DD1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	30B	33DD2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E26/S76	30B	33DD2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S76	30B	33DD2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S76	30B	33DD2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E26/S76	31A	33EE1A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S76	31A	33EE1B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E26/S76	31A	33EE1B	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	31A	33EE1B	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
E26/S76	31A	33EE1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S76	31A	33EE1C	Isi-c	L. Paleo.	f175	<i>Antilocapra/Odocoileus</i>	Metapodial	1
E26/S76	31A	33EE1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	31A	33EE1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	4
E26/S76	31A	33EE1C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E26/S76	31A	33EE1C	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S76	31A	33EE1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	12
E26/S76	31B	33EE2A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	31B	33EE2A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S76	31B	33EE2A	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	14
E26/S76	31B	33EE2A	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E26/S76	31B	33EE2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E26/S76	31B	33EE2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	31B	33EE2C	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S76	31B	33EE2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E26/S76	31B	33EE2D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S76	31B	33EE2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S76	32A	33FF1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S76	32A	33FF1A	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	32A	33FF1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E26/S76	32A	33FF1C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	32A	33FF1C	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	4
E26/S76	32A	33FF1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E26/S76	32A	33FF1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E26/S76	32A	33FF1D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S76	32A	33FF1D	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	4
E26/S76	32A	33FF1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7
E26/S76	33A	33GG1A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E26/S76	33A	33GG1A	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E26/S76	33A	33GG1B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	6
E26/S76	33A	33GG1C	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E26/S76	33A	33GG1D	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
E26/S76	33B	33GG2A	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E26/S76	33B	33GG2B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E26/S76	33B	33GG2C	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E26/S76	34A	33HH1B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	3
E26/S76	34A	33HH1B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E26/S76	34A	33HH1B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	6
E26/S76	34A	33HH1C	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	5
E26/S76	34A	33HH1C	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E26/S76	34A	33HH1D	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E26/S76	34A	33HH1D	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E26/S76	34B	33HH2A	Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	3
E26/S76	35A	33II1A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S76	35A	33II1D	Icl	E. Paleo.		Vertebrata	Indeterminate	19
E26/S76	35B	33II2C	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	35B	33II2D	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S76	36A	33JJ1A	Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S76	36A	33JJ1A	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S76	36A	33JJ1C	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S76	36A	33JJ1C	Icl	E. Paleo.		Vertebrata	Long bone	1
E26/S76	36A	33JJ1D	Icl/D	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	36A	33JJ1D	Icl/D	E. Paleo.		Vertebrata	Indeterminate	1
E26/S76	36B	33JJ2A	Icl	E. Paleo.		Vertebrata	Indeterminate	6
E26/S76	36B	33JJ2C	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S76	36B	33JJ2D	Icl/D	E. Paleo.		Vertebrata	Indeterminate	3
E26/S76	37A	33KK1B	Icl	E. Paleo.		Vertebrata	Indeterminate	4
E26/S76	37A	33KK1D	Icl/D	E. Paleo.		Vertebrata	Indeterminate	8
E26/S76	37A-38A	33KK1LL	Icl/D	E. Paleo.		Vertebrata	Indeterminate	6
E26/S76	37B	33KK2A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S76	37B	33KK2B	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S76	37B	33KK2C	Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S76	37B	33KK2D	Icl/D	E. Paleo.		Vertebrata	Indeterminate	2
E26/S76	38A	33LL1A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	38A	33LL1B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E26/S76	38A	33LL1B	Isi/Icl	E. Paleo.		<i>Odocoileus</i> sp.	Phalange	1
E26/S76	38A	33LL1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S76	38A	33LL1C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S76	38A	33LL1C	Isi/Icl	E. Paleo.	f175	Vertebrata	Indeterminate	1
E26/S76	38A	33LL1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	19
E26/S76	38B	33LL2A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	38B	33LL2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S76	38B	33LL2B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	38B	33LL2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S76	38B	33LL2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	5
E26/S76	39A	33MM1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	7
E26/S76	39A	33MM1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S76	39A	33MM1D	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E26/S76	39A	33MM1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	12
E26/S76	39A	F175	Icl/Isi	Paleoindian		Vertebrata	Indeterminate	14
E26/S76	39B	33MM2A	Isi/Icl	E. Paleo.		Large vertebrate, class ind.	Indeterminate	3
E26/S76	39B	33MM2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	10
E26/S76	39B	33MM2B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E26/S76	39B	33MM2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E26/S76	39B	33MM2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	39B	33MM2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	20
E26/S76	39B	33MM2D	Isi/Icl	E. Paleo.		Large vertebrate, class ind.	Indeterminate	1
E26/S76	39B	33MM2D	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	39B	33MM2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S76	40A	33NN1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	13
E26/S76	40A	33NN1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	12
E26/S76	40A	33NN1B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E26/S76	40A	33NN1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	7
E26/S76	40A	33NN1C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	40A	33NN1D	Isi/Icl	E. Paleo.		Mammalia (Large)	Indeterminate	8
E26/S76	40A	33NN1D	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S76	40A	33NN1D	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	10
E26/S76	40A	33NN1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	44
E26/S76	40B	33NN2A	Isi/Icl	E. Paleo.		Leporidae	Calcaneus	1
E26/S76	40B	33NN2A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E26/S76	40B	33NN2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	8
E26/S76	40B	33NN2B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S76	40B	33NN2B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E26/S76	40B	33NN2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	8
E26/S76	40B	33NN2C	Isi/Icl	E. Paleo.		Large vertebrate, class ind.	Indeterminate	1
E26/S76	40B	33NN2C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S76	40B	33NN2D	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	40B	33NN2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S76	41	33OO	Isi/Icl	E. Paleo.		Mammalia (Very large)	Indeterminate	2
E26/S76	41A	33OO1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	15
E26/S76	41A	33OO1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	14
E26/S76	41A	33OO1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	10
E26/S76	41B	33OO2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S76	41B	33OO2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	41B	33OO2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	6
E26/S76	42A	33PP1A	Igl/Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S76	42A	33PP1A	Igl/Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	8
E26/S78	15	32O	IIIa/b	E. Archaic	F124	Mammalia (Large)	Long bone	1
E26/S78	15	32O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E26/S78	15	32O	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	2
E26/S78	15	32O	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E26/S78	15	32O	IIIa/b	E. Archaic		Vertebrata	Indeterminate	3
E26/S78	16A	32P1	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E26/S78	16A	32P1	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E26/S78	16B	32P2	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	5
E26/S78	16B	32P2	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E26/S78	16B	32P2	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
E26/S78	16B	32P2	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
E26/S78	16B	32P2	IIIa	E. Archaic		Testudinata	Shell fragment	1
E26/S78	16B	32P2	IIIa	E. Archaic		Vertebrata	Indeterminate	11
E26/S78	17A	32Q1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E26/S78	17A	32Q1	IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
E26/S78	17A	32Q1	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E26/S78	17B	32Q2	IIIa	E. Archaic		Vertebrata	Indeterminate	6
E26/S78	18A	32R1	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S78	18A	32R1	IIIa	E. Archaic		Vertebrata	Indeterminate	7
E26/S78	18B	32R2	IIIa	E. Archaic		Mammalia (Medium)	Proximal phalange	1
E26/S78	18B	32R2	IIIa	E. Archaic		Testudinata	Shell fragment	1
E26/S78	18B	32R2	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E26/S78	18B	32R2	IIIa	E. Archaic		Vertebrata	Long bone	1
E26/S78	19A	32S1	II/IIIa	L. Paleo./E. Archaic		<i>Antilocapra/Odocoileus</i>	Tibia	1
E26/S78	19A	32S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Large)	Long bone	1
E26/S78	19A	32S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
E26/S78	19A	32S1	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	2
E26/S78	19A	32S1	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E26/S78	19A	32S1	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	26
E26/S78	19B	32S2A	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E26/S78	19B	32S2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	4
E26/S78	19B	32S2C	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
E26/S78	20A	32T1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S78	20A	32T1B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S78	20A	32T1D	II	L. Paleo.		Artiodactyla (Medium)	Tooth, perm./decid. ind.	1
E26/S78	20A	32T1D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S78	20A	32T1D	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S78	20B	32T2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S78	20B	32T2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	20B	32T2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	20B	32T2B	II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S78	20B	32T2B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S78	20B	32T2C	II	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
E26/S78	20B	32T2C	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S78	20B	32T2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E26/S78	20B	32T2D	II	L. Paleo.		Vertebrata	Indeterminate	6
E26/S78	21A	32U1B	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	21A	32U1C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	21A	32U1C	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E26/S78	21A	32U1C	II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S78	21A	32U1D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E26/S78	21B	32U2A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S78	21B	32U2A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S78	21B	32U2A	II	L. Paleo.		Vertebrata	Indeterminate	9
E26/S78	21B	32U2B	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	21B	32U2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	21B	32U2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	21B	32U2C	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S78	21B	32U2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S78	21B	32U2D	II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S78	22A	32V1A	II	L. Paleo.		Mammalia (Small)	Tooth, perm./decid. ind.	1
E26/S78	22A	32V1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S78	22A	32V1A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E26/S78	22A	32V1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	22A	32V1B	II	L. Paleo.		Mammalia (Medium)	Middle phalange	1
E26/S78	22A	32V1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	22A	32V1B	II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S78	22A	32V1B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S78	22A	32V1B	II	L. Paleo.		Vertebrata	Indeterminate	8
E26/S78	22A	32V1C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S78	22B	32V2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	22B	32V2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E26/S78	22B	32V2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	22B	32V2D	II	L. Paleo.		Vertebrata	Indeterminate	5
E26/S78	23A	32W1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	23A	32W1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	23A	32W1B	II	L. Paleo.		Vertebrata	Indeterminate	16
E26/S78	23A	32W1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S78	23A	32W1B	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E26/S78	23A	32W1B	II	L. Paleo.		Vertebrata	Indeterminate	5
E26/S78	23A	32W1C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	23A	32W1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	23A	32W1D	II	L. Paleo.		Vertebrata	Indeterminate	6
E26/S78	23B	32W2	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	12
E26/S78	23B	32W2	II	L. Paleo.		Mammalia (Very large)	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S78	23B	32W2A	II	L. Paleo.		Leporidae	Radius	1
E26/S78	23B	32W2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	23B	32W2C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	23B	32W2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	23B	32W2D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	24A	32X1C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	24A	32X1D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	24B	32X2A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S78	24B	32X2B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S78	24B	32X2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	24B	32X2D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S78	24B	32X2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	25A	32Y1A	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	25A	32Y1B	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	25A	32Y1C	Id/II	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E26/S78	25A	32Y1C	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	25B	32Y2A	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E26/S78	25B	32Y2A	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S78	25B	32Y2B	Id/II	L. Paleo.		Vertebrata	Indeterminate	2
E26/S78	25B	32Y2C	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	25B	32Y2C	Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S78	25B	32Y2D	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S78	25B	32Y2D	Id/II	L. Paleo.		Vertebrata	Indeterminate	7
E26/S78	26A	32Z1A	Id/II	L. Paleo.		Vertebrata	Indeterminate	4
E26/S78	26A	32Z1B	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	26A	32Z1C	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	26A	32Z1C	Id/II	L. Paleo.		Vertebrata	Indeterminate	6
E26/S78	26B	32Z2A	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	26B	32Z2A	Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S78	26B	32Z2C	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	26B	32Z2D	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	26B	32Z2D	Id/II	L. Paleo.		Medium/Large Vertebrata	Long bone	2
E26/S78	26B	32Z2D	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S78	27A	32AA1A	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	3
E26/S78	27A	32AA1B	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	27A	32AA1D	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	27B	32AA2A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	4
E26/S78	27B	32AA2B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	5
E26/S78	27B	32AA2D	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	27B	32AA2D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	2
E26/S78	28A	32BB1A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	2
E26/S78	28A	32BB1B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	4
E26/S78	28A	32BB1C	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	28A	32BB1C	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E26/S78	28A	32BB1C	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	4
E26/S78	28A	32BB1D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	28B	32BB2A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	28B	32BB2B	Isi-c/Id	L. Paleo.		Mammalia (Large)	Indeterminate	1
E26/S78	28B	32BB2B	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	3
E26/S78	28B	32BB2B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	4
E26/S78	28B	32BB2C	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	28B	32BB2C	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	2
E26/S78	28B	32BB2C	Isi-c/Id	L. Paleo.		Vertebrata	Vertebra	1
E26/S78	28B	32BB2D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	29A	32CC1A	Isi-c/Id	L. Paleo.		Mammalia (Large)	Indeterminate	3
E26/S78	29A	32CC1A	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	29A	32CC1A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	18
E26/S78	29A	32CC1B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	5
E26/S78	29A	32CC1C	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S78	29A	32CC1C	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	7
E26/S78	29B	32CC2C	Isi-c	L. Paleo.		Mammalia (Medium)	Calcaneus	1
E26/S78	29B	32CC2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S78	29B	32CC2C	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Tibia	1
E26/S78	29B	32CC2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	10
E26/S78	29B	32CC2D	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E26/S78	30A	32DD1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E26/S78	30A	32DD1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S78	30A	32DD1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S78	30A	32DD1C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	30A	32DD1C	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E26/S78	30A	32DD1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E26/S78	30A	32DD1D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S78	30A	32DD1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
E26/S78	30B	32DD2A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S78	30B	32DD2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	19
E26/S78	30B	32DD2A	Isi-c	L. Paleo.		Vertebrata	Long bone	2
E26/S78	30B	32DD2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Mandible	1
E26/S78	30B	32DD2B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	31A	32EE1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E26/S78	31A	32EE1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	3
E26/S78	31A	32EE1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
E26/S78	31A	32EE1B	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S78	31A	32EE1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	31B	32EE2A	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S78	31B	32EE2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S78	31B	32EE2C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	31B	32EE2C	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S78	31B	32EE2C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E26/S78	31B	32EE2D	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E26/S78	32A	32FF1C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S78	32A	32FF1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	5
E26/S78	32B	32FF2A	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E26/S78	32B	32FF2A	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	14
E26/S78	33A	32GG1B	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E26/S78	33A	32GG2C	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E26/S78	33A	32GG1D	Isi/Icl/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	1
E26/S78	33A	32GG1D	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	4
E26/S78	33A	32GG1D	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
E26/S78	33B	32GG2A	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E26/S78	33B	32GG2C	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
E26/S78	33B	32GG2C	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E26/S78	33B	32GG2D	Isi/Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
E26/S78	34A	32HH1A	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E26/S78	34A	32HH1B	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
E26/S78	34A	32HH1B	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E26/S78	34A	32HH1C	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
E26/S78	34A	32HH1D	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
E26/S78	35A	32II1A	Isi/Icl	E. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	2
E26/S78	35A	32II1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S78	35A	32II1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S78	35B	32II2A	Isi/Icl	E. Paleo.		Mammalia (Large)	Indeterminate	1
E26/S78	35B	32II2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S78	35B	32II2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S78	35B	32II2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S78	36A	32IJ1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S78	36B	32IJ2A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	36B	32IJ2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E26/S78	36B	32IJ2B	Isi/Icl/D	E. Paleo.		Mammalia (Small)	Tooth, perm./decid. ind.	6
E26/S78	36B	32IJ2B	Isi/Icl/D	E. Paleo.		Vertebrata	Indeterminate	5
E26/S78	36B	32IJ2C	Isi/Icl	E. Paleo.		Mammalia (Large)	Long bone	1
E26/S78	36B	32IJ2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S78	37A	32KK1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S78	37A	32KK1B	Isi/Icl/D	E. Paleo.		Mammalia (Large)	Indeterminate	3
E26/S78	37A	32KK1B	Isi/Icl/D	E. Paleo.		Vertebrata	Indeterminate	4
E26/S78	37A	32KK1C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E26/S78	37A	32KK1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E26/S78	37A	32KK1D	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	37B	32KK2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	9
E26/S78	37B	32KK2B	Isi/Icl/D	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	37B	32KK2B	Isi/Icl/D	E. Paleo.		Vertebrata	Indeterminate	12
E26/S78	37B	32KK2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S78	37B	32KK2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E26/S78	37B	32KK2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	9
E26/S78	38A	32LL1A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E26/S78	38A	32LL1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E26/S78	38A	32LL1B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E26/S78	38A	32LL1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S78	38A	32LL1C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E26/S78	38A	32LL1C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	8
E26/S78	38A	32LL1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	6
E26/S78	38A	32LL1D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	16
E26/S78	38B	32LL2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S78	38B	32LL2B	Isi/Icl	E. Paleo.		Mammalia (Large)	Tooth, perm./decid. ind.	1
E26/S78	38B	32LL2B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S78	38B	32LL2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	12
E26/S78	38B	32LL2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	3
E26/S78	39A	32MM1A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	6
E26/S78	39A	32MM1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	11
E26/S78	39A	32MM1B	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Tooth, perm./decid. ind.	1
E26/S78	39A	32MM1B	Isi/Icl	E. Paleo.		Mammalia (Large)	Tooth, perm./decid. ind.	1
E26/S78	39A	32MM1C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E26/S78	39A	32MM1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E26/S78	39B	32MM2A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	4
E26/S78	39B	32MM2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	10
E26/S78	39B	32MM2B	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Astragalus	2
E26/S78	39B	32MM2B	Isi/Icl	E. Paleo.		Mammalia (Large)	Tooth, perm./decid. ind.	1
E26/S78	39B	32MM2B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	6
E26/S78	39B	32MM2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	19
E26/S78	39B	32MM2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	7
E26/S78	39B	32MM2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	2
E26/S78	39B	32MM2C	Isi/Icl	E. Paleo.		Mammalia (Very large)	Indeterminate	1
E26/S78	39B	32MM2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	13
E26/S78	40B	32NN2A	Isi/Icl	E. Paleo.		Mammalia (Large)	Indeterminate	1
E26/S78	40B	32NN2A	Isi/Icl	E. Paleo.		Mammalia (Medium)	Pelvis	1
E26/S78	40B	32NN2A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	7
E26/S78	40B	32NN2A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	11
E26/S78	40B	32NN2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	7
E26/S78	40B	32NN2B	Isi/Icl	E. Paleo.		Mammalia (Large)	Tooth, perm./decid. ind.	1
E26/S78	41	32OO1&2	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Mandible	1
E26/S78	41	32OO1&2	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Permanent tooth	1
E26/S78	41	32OO1&2	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E26/S78	41	32OO1&2	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	8
E26/S78	41B	32OO2A	Isi/Icl	E. Paleo.		Mammalia (Large)	Indeterminate	1
E26/S78	41B	32OO2A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E26/S78	41B	32OO2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E26/S78	41B-42A	32OO2/Pf	Isi/Icl	E. Paleo.		cf. <i>Bison</i>	Metacarpal	1
E26/S78	41B-42A	32OO2/Pf	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E28/S78	1	37AA	IIIc	L. Prehist.		Mammalia (Medium/large)	Alveolar ridge fragment	1
E28/S78	1	37AA	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	13
E28/S78	1	37AA	IIIc	L. Prehist.		Mammalia (Medium/large)	Long bone	2
E28/S78	1	37AA	IIIc	L. Prehist.		Vertebrata	Indeterminate	2
E28/S78	1	37AB	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	3
E28/S78	1	37AB	IIIc	L. Prehist.		Vertebrata	Indeterminate	10
E28/S78	1	37AC	IIIc	L. Prehist.		Mammalia (Medium/large)	Alveolar ridge fragment	1
E28/S78	1	37AC	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	1	37AC	IIIc	L. Prehist.		Mammalia (Medium/large)	Long bone	2
E28/S78	1	37AC	IIIc	L. Prehist.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	1	37AC	IIIc	L. Prehist.		Vertebrata	Indeterminate	1
E28/S78	1	37AD	IIIc	L. Prehist.		Mammalia (Medium/large)	Indeterminate	12
E28/S78	1	37AD	IIIc	L. Prehist.		Mammalia (Medium/large)	Long bone	1
E28/S78	1	37AD	IIIc	L. Prehist.		Vertebrata	Indeterminate	3
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Mandible	2
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Alveolar ridge fragment	2
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	7
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Long bone	1
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	8
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	1
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Mandible	1
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Permanent tooth	2
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Proximal phalange	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E28/S78	2	37BA	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	55
E28/S78	2	37BB	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Axis	1
E28/S78	2	37BB	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Fused central/fourth tarsal	1
E28/S78	2	37BB	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	9
E28/S78	2	37BB	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	3
E28/S78	2	37BB	IIIc	L. Archaic/L. Prehist.		Medium/Large Vertebrata	Indeterminate	7
E28/S78	2	37BB	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Middle phalange	1
E28/S78	2	37BB	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Proximal phalange	1
E28/S78	2	37BB	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	8
E28/S78	2	37BC	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Metatarsal	1
E28/S78	2	37BC	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Cranium	1
E28/S78	2	37BC	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	27
E28/S78	2	37BC	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	19
E28/S78	2	37BC	IIIc	L. Archaic/L. Prehist.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	2	37BC	IIIc	L. Archaic/L. Prehist.		Small/Medium Vertebrata	Long bone	1
E28/S78	2	37BC	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	13
E28/S78	2	37BD	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	15
E28/S78	2	37BD	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	16
E28/S78	2	37BD	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Tibia	1
E28/S78	2	37BD	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	9
E28/S78	3	37CA	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E28/S78	3	37CA	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
E28/S78	3	37CA	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E28/S78	3	37CA	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	3	37CA	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	1
E28/S78	3	37CA	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
E28/S78	3	37CA	IIIc	L. Archaic		Vertebrata	Indeterminate	35
E28/S78	3	37CB	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E28/S78	3	37CB	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E28/S78	3	37CB	IIIc	L. Archaic		Carnivora	Metapodial	1
E28/S78	3	37CB	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	2
E28/S78	3	37CB	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E28/S78	3	37CB	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	14
E28/S78	3	37CB	IIIc	L. Archaic		Vertebrata	Indeterminate	27
E28/S78	3	37CB	IIIc	L. Archaic		Vertebrata	Long bone	1
E28/S78	3	37CC	IIIc	L. Archaic		Mammalia (Large)	Long bone	2
E28/S78	3	37CC	IIIc	L. Archaic		Mammalia (Large)	Podial	1
E28/S78	3	37CC	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	6
E28/S78	3	37CC	IIIc	L. Archaic		Serpentes	Vertebra	1
E28/S78	3	37CC	IIIc	L. Archaic		Vertebrata	Indeterminate	24
E28/S78	3	37CD	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
E28/S78	3	37CD	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	4
E28/S78	3	37CD	IIIc	L. Archaic		Vertebrata	Indeterminate	11
E28/S78	4	37DA	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E28/S78	4	37DA	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	4	37DA	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Distal phalange	1
E28/S78	4	37DA	IIIc	L. Archaic		Vertebrata	Indeterminate	35
E28/S78	4	37DB	IIIc	L. Archaic		<i>Lepus californicus</i>	Calcaneus	1
E28/S78	4	37DB	IIIc	L. Archaic		Mammalia (Medium/large)	Alveolar ridge fragment	1
E28/S78	4	37DB	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	4	37DB	IIIc	L. Archaic		Medium/Large Vertebrata	Long bone	2
E28/S78	4	37DB	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E28/S78	4	37DB	IIIc	L. Archaic		Testudinata	Shell fragment	1
E28/S78	4	37DB	IIIc	L. Archaic		Vertebrata	Indeterminate	4
E28/S78	4	37DB	IIIc	L. Archaic		Vertebrata	Long bone	1
E28/S78	4	37DC	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Ulna	1
E28/S78	4	37DC	IIIc	L. Archaic		<i>Bison</i> sp.	Mandible	1
E28/S78	4	37DC	IIIc	L. Archaic		<i>Bison</i> sp.	Permanent tooth	1
E28/S78	4	37DC	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	4
E28/S78	4	37DC	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	2
E28/S78	4	37DC	IIIc	L. Archaic		Vertebrata	Indeterminate	17
E28/S78	4	37DC	IIIc	L. Archaic		Vertebrata	Long bone	1
E28/S78	4	37DD	IIIc	L. Archaic		Artiodactyla (Medium)	Tooth, perm./decid. ind.	1
E28/S78	4	37DD	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
E28/S78	4	37DD	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	9
E28/S78	4	37DD	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	1
E28/S78	4	37DD	IIIc	L. Archaic		Medium/Large Vertebrata	Indeterminate	5

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E28/S78	4	37DD	IIIc	L. Archaic		Vertebrata	Indeterminate	3
E28/S78	5	37EA	IIIc	L. Archaic	f173	<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	<i>Antilocapra/Odocoileus</i>	Third carpal bone	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	Artiodactyla	Tooth, perm./decid. ind.	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	cf. Canidae	Metatarsal 4	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	Mammalia (Large)	Alveolar ridge fragment	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	Mammalia (Large)	Cranium	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	Mammalia (Large)	Indeterminate	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	Mammalia (Large)	Long bone	3
E28/S78	5	37EA	IIIc	L. Archaic	f173	Mammalia (Large)	Tooth, perm./decid. ind.	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Cranium	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Indeterminate	7
E28/S78	5	37EA	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Tooth, perm./decid. ind.	4
E28/S78	5	37EA	IIIc	L. Archaic	f173	<i>Odocoileus</i> sp.	Permanent tooth	1
E28/S78	5	37EA	IIIc	L. Archaic	f173	Vertebrata	Indeterminate	81
E28/S78	5	37EB	IIIc	L. Archaic	f173	<i>Antilocapra/Odocoileus</i>	Phalange	1
E28/S78	5	37EB	IIIc	L. Archaic	f173	<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
E28/S78	5	37EB	IIIc	L. Archaic	f173	Carnivora	Metapodial	1
E28/S78	5	37EB	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Indeterminate	8
E28/S78	5	37EB	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Long bone	7
E28/S78	5	37EB	IIIc	L. Archaic	f173	Medium/Large Vertebrata	Indeterminate	2
E28/S78	5	37EB	IIIc	L. Archaic	f173	Vertebrata	Indeterminate	5
E28/S78	5	37EC	IIIc	L. Archaic	f173	Leporidae	Humerus	1
E28/S78	5	37EC	IIIc	L. Archaic	f173	Mammalia (Large)	Indeterminate	3
E28/S78	5	37EC	IIIc	L. Archaic	f173	Mammalia (Large)	Long bone	1
E28/S78	5	37EC	IIIc	L. Archaic	f173	Mammalia (Large)	Tooth, perm./decid. ind.	1
E28/S78	5	37EC	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Alveolar ridge fragment	2
E28/S78	5	37EC	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Compact bone	1
E28/S78	5	37EC	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Indeterminate	14
E28/S78	5	37EC	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Long bone	8
E28/S78	5	37EC	IIIc	L. Archaic	f173	Medium/Large Vertebrata	Indeterminate	10
E28/S78	5	37EC	IIIc	L. Archaic	f173	<i>Odocoileus</i> sp.	Permanent tooth	1
E28/S78	5	37EC	IIIc	L. Archaic	f173	<i>Sigmodon hispidus</i>	Mandible	1
E28/S78	5	37EC	IIIc	L. Archaic	f173	<i>Sigmodon hispidus</i>	Permanent tooth	2
E28/S78	5	37EC	IIIc	L. Archaic	f173	Small/Medium Vertebrata	Long bone	1
E28/S78	5	37EC	IIIc	L. Archaic	f173	Vertebrata	Indeterminate	41
E28/S78	5	37ED	IIIc	L. Archaic	f173	<i>Antilocapra/Odocoileus</i>	Scapula	1
E28/S78	5	37ED	IIIc	L. Archaic	f173	<i>Antilocapra/Odocoileus</i>	Sesamoid	1
E28/S78	5	37ED	IIIc	L. Archaic	f173	Artiodactyla (Medium)	Tooth, perm./decid. ind.	4
E28/S78	5	37ED	IIIc	L. Archaic	f173	Leporidae	Tibia	1
E28/S78	5	37ED	IIIc	L. Archaic	f173	Mammalia (Large)	Indeterminate	1
E28/S78	5	37ED	IIIc	L. Archaic	f173	Mammalia (Large)	Long bone	1
E28/S78	5	37ED	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Indeterminate	12
E28/S78	5	37ED	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Long bone	5
E28/S78	5	37ED	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E28/S78	5	37ED	IIIc	L. Archaic	f173	Mammalia (Medium/large)	Ulna	1
E28/S78	5	37ED	IIIc	L. Archaic	f173	Medium/Large Vertebrata	Long bone	4
E28/S78	5	37ED	IIIc	L. Archaic	f173	<i>Odocoileus</i> sp.	Permanent tooth	1
E28/S78	5	37ED	IIIc	L. Archaic	f173	Vertebrata	Indeterminate	13
E28/S78	6	37FA	IIIc	L. Archaic		Vertebrata	Indeterminate	22
E28/S78	6	37FB	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E28/S78	6	37FB	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	7
E28/S78	6	37FB	IIIc	L. Archaic		Mammalia (Very large)	Long bone	1
E28/S78	6	37FB	IIIc	L. Archaic		Medium/Large Vertebrata	Long bone	2
E28/S78	6	37FB	IIIc	L. Archaic		Vertebrata	Indeterminate	2
E28/S78	6	37FC	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	5
E28/S78	6	37FC	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	2
E28/S78	6	37FC	IIIc	L. Archaic		Medium/Large Vertebrata	Indeterminate	3
E28/S78	6	37FC	IIIc	L. Archaic		Vertebrata	Indeterminate	12
E28/S78	6	37FD	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	6	37FD	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	3
E28/S78	6	37FD	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
E28/S78	6	37FD	IIIc	L. Archaic		Vertebrata	Indeterminate	1
E28/S78	7	37GA	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Ulna	1
E28/S78	7	37GA	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	7	37GA	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	2
E28/S78	7	37GA	IIIc	Middle/L. Archaic		Medium/Large Vertebrata	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E28/S78	7	37GA	IIIc	Middle/L. Archaic	f177	Vertebrata	Indeterminate	38
E28/S78	7	37GB	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	1
E28/S78	7	37GB	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	4
E28/S78	7	37GC	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	7	37GC	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	7
E28/S78	7	37GD	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Cranium	1
E28/S78	7	37GD	IIIb/c	Middle/L. Archaic		Testudinata	Carapace fragment ind.	1
E28/S78	7	37GD	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	3
E28/S78	7	37GD	IIIb/c	Middle/L. Archaic		Vertebrata	Long bone	1
E28/S78	8	37HA	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Indeterminate	1
E28/S78	8	37HB	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Long bone	1
E28/S78	8	37HB	IIIb/c	Middle/L. Archaic		Medium/Large Vertebrata	Indeterminate	1
E28/S78	8	37HB	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	5
E28/S78	8	37HC	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E28/S78	8	37HC	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	4
E28/S78	8	37HD	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Cranium	1
E28/S78	8	37HD	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	3
E28/S78	9	37IB	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	9	37IB	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	1
E28/S78	9	37IC	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Patella	1
E28/S78	9	37IC	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	9	37IC	IIIb/c	Middle/L. Archaic		Medium/Large Vertebrata	Long bone	1
E28/S78	9	37IC	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	1
E28/S78	9	37ID	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	1
E28/S78	10	37J	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	10	37JA	IIIb/c	M. Archaic		Emydidae	Shell fragment	1
E28/S78	10	37JA	IIIb/c	M. Archaic		Mammalia (Large)	Long bone	1
E28/S78	10	37JA	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	10	37JA	IIIb/c	M. Archaic		Vertebrata	Indeterminate	3
E28/S78	10	37JB	IIIb	M. Archaic		Mammalia (Large)	Long bone	1
E28/S78	10	37JB	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	3
E28/S78	10	37JB	IIIb	M. Archaic		Vertebrata	Indeterminate	3
E28/S78	10	37JC	IIIb/c	M. Archaic		Vertebrata	Indeterminate	14
E28/S78	10	37JD	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	11	37KA	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	11	37KA	IIIb/c	M. Archaic		Vertebrata	Indeterminate	4
E28/S78	11	37KB	IIIb	M. Archaic		Vertebrata	Indeterminate	4
E28/S78	11	37KC	IIIb	M. Archaic		Vertebrata	Indeterminate	8
E28/S78	11	37KD	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	11	37KD	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	1
E28/S78	12	37LA	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	2
E28/S78	12	37LB	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	12	37LB	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	2
E28/S78	12	37LC	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	12	37LD	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	3
E28/S78	12	37LD	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Long bone	6
E28/S78	12	37LD	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	2
E28/S78	13	37MA	IIIb	E. Archaic		Vertebrata	Indeterminate	5
E28/S78	13	37MC	IIIb	E. Archaic		Vertebrata	Indeterminate	2
E28/S78	13	37MD	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	13	37MD	IIIb	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E28/S78	14	37NA	IIIb	E. Archaic		Vertebrata	Indeterminate	2
E28/S78	14	37NB	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	14	37NB	IIIb	E. Archaic		Vertebrata	Indeterminate	1
E28/S78	14	37NC	IIIa/b	E. Archaic		Vertebrata	Indeterminate	3
E28/S78	14	37ND	IIIa/b	E. Archaic		<i>Lepus californicus</i>	Tibia	1
E28/S78	14	37ND	IIIa/b	E. Archaic		<i>Odocoileus</i> sp.	Dist. phalange of paradigit	1
E28/S78	14	37ND	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	1
E28/S78	15A	37O1B	IIIb	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	15A	37O1C	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	15A	37O1C	IIIa/b	E. Archaic		Vertebrata	Indeterminate	2
E28/S78	15A	37O1D	IIIa	E. Archaic		Carnivora	Metapodial	1
E28/S78	15B	37O2	IIIa	E. Archaic	f181?	Medium/Large Vertebrata	Indeterminate	1
E28/S78	16A	37P1A	IIIa	E. Archaic	f181	Vertebrata	Indeterminate	3
E28/S78	16A	37P1B	IIIa	E. Archaic	f181	Mammalia (Medium/large)	Indeterminate	1
E28/S78	16A	37P1C	IIIa	E. Archaic	f181	Vertebrata	Indeterminate	1
E28/S78	16A	37P1D	IIIa	E. Archaic	f181	Mammalia (Medium/large)	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E28/S78	16A	37P1D	IIIa	E. Archaic	f181	Small/Medium Vertebrata	Long bone	1
E28/S78	16B	37P2A	IIIa	E. Archaic	f181	Vertebrata	Indeterminate	1
E28/S78	16B	37P2C	IIIa	E. Archaic	f181	Mammalia (Medium/large)	Indeterminate	2
E28/S78	16B	37P2C	IIIa	E. Archaic	f181	Vertebrata	Indeterminate	1
E28/S78	16B	37P2D	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
E28/S78	16B	37P2D	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E28/S78	17A	37Q1A	IIIa	E. Archaic	f181	Mammalia (Medium/large)	Indeterminate	1
E28/S78	17A	37Q1A	IIIa	E. Archaic	f181	Small/Medium Vertebrata	Long bone	1
E28/S78	17A	37Q1B	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E28/S78	17A	37Q1C	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E28/S78	17A	37Q1C	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E28/S78	17A	37Q1D	IIIa	E. Archaic	f181	Vertebrata	Indeterminate	1
E28/S78	17B	37Q2A	IIIa	E. Archaic	f181	Vertebrata	Indeterminate	4
E28/S78	17B	37Q2B	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	10
E28/S78	17B	37Q2B	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	5
E28/S78	17B	37Q2B	IIIa	E. Archaic		Vertebrata	Indeterminate	3
E28/S78	17B	37Q2D	IIIa	E. Archaic	f181	Small/Medium Vertebrata	Long bone	1
E28/S78	18A	37R1A	IIIa	E. Archaic	f181	Vertebrata	Indeterminate	2
E28/S78	18A	37R1B	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
E28/S78	18A	37R1C	IIIa	E. Archaic		Medium/Large Vertebrata	Long bone	1
E28/S78	18A	37R1C	IIIa	E. Archaic		Testudinata	Shell fragment	2
E28/S78	18A	37R1C	IIIa	E. Archaic		Vertebrata	Indeterminate	1
E28/S78	18B	37R2B	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
E28/S78	18B	37R2B	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
E28/S78	18B	37R2C	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
E28/S78	18B	37R2D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	19A	37S1B	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
E28/S78	19A	37S1B	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Proximal phalange	1
E28/S78	19A	37S1C	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
E28/S78	19A	37S1D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E28/S78	19A	37S1D	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E28/S78	19A	37S1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	19B	37S2A	II/IIIa	L. Paleo./E. Archaic	f181	<i>Lepus californicus</i>	Calcaneus	1
E28/S78	19B	37S2B	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E28/S78	19B	37S2B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E28/S78	19B	37S2C	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
E28/S78	19B	37S2D	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	20A	37T1A	II/IIIa	L. Paleo./E. Archaic	f181?18	Mammalia (Medium/large)	Long bone	1
E28/S78	20A	37T1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	20A	37T1B	II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
E28/S78	20A	37T1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	20A	37T1B	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E28/S78	20A	37T1B	II	L. Paleo.		Vertebrata	Indeterminate	2
E28/S78	20A	37T1C	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	1
E28/S78	20A	37T1D	II	L. Paleo.		Testudinata	Shell fragment	1
E28/S78	20A	37T1D	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	20B	37T2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	20B	37T2C	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	20B	37T2C	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	20B	37T2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	20B	37T2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	20B	37T2D	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
E28/S78	21A	37U1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E28/S78	21A	37U1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	21A	37U1A	II	L. Paleo.	f186	Mammalia (Medium)	Proximal phalange	1
E28/S78	21A	37U1B	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E28/S78	21A	37U1D	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	21B	37U2	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	21B	37U2C	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E28/S78	22A	37V1A	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	22A	37V1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	22A	37V1B	II	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E28/S78	22A	37V1B	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	22A	37V1B	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E28/S78	22B	37V2A	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
E28/S78	22B	37V2A	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E28/S78	23A	37W1A	II	L. Paleo.		Mammalia (Large)	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E28/S78	23A	37W1A	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	23A	37W1A	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	23A	37W1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	23A	37W1B	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	23B	37W2A	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	23B	37W2B	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	23B	37W2C	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
E28/S78	23B	37W2C	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	23B	37W2D	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	24A	37X1A	II	L. Paleo.		Mammalia (Medium/large)	Caudal vertebra	1
E28/S78	24A	37X1B	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	24A	37X1C	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E28/S78	24A	37X1D	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	24B	37X2C	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	25A	37Y1A	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	25A	37Y1B	II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	25A	37Y1D	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	25A	37Y1D	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	25B	37Y2B	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E28/S78	25B	37Y2C	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	26A	37Z1B	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	26A	37Z1D	Id	L. Paleo.		Testudinata	Neural	1
E28/S78	26A	37Z1D	Id	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	26B	37Z2A	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	26B	37Z2C	Id	L. Paleo.		<i>Odocoileus</i> sp.	Permanent tooth	1
E28/S78	26B	37Z2D	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	27A	37AA1D	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	27B	37AA2A	Id	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	27B	37AA2B	Id	L. Paleo.		Leporidae	Permanent tooth	1
E28/S78	27B	37AA2B	Id	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
E28/S78	27B	37AA2B	Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	27B	37AA2B	Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	27B	37AA2B	Id	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	27B	37AA2C	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	28A	37BB1B	Isi-c/Id	L. Paleo.		<i>Odocoileus</i> sp.	Middle phalange	1
E28/S78	28A	37BB1B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	28A	37BB1C	Isi-c/Id	L. Paleo.		<i>Odocoileus</i> sp.	Permanent tooth	1
E28/S78	28B	37BB2A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	3
E28/S78	28B	37BB2B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	28B	37BB2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	28B	37BB2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E28/S78	28B	37BB2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E28/S78	28B	37BB2D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	29A	37CC1A	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	3
E28/S78	29A	37CC1B	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	29A	37CC1C	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	29A	37CC1D	Isi-c	L. Paleo.		Chondrichthyes	Tooth	1
E28/S78	29A	37CC1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	29A	37CC1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	29A	37CC1D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	29A	37CC1D	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
E28/S78	29A	37CC1D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
E28/S78	29B	37CC2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	29B	37CC2B	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	5
E28/S78	29B	37CC2B	Isi-c	L. Paleo.		Vertebrata	Long bone	1
E28/S78	29B	37CC2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	29B	37CC2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	29B	37CC2D	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	30A	37DD1A	Isi-c	L. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	1
E28/S78	30A	37DD1A	Isi-c	L. Paleo.		Mammalia (Large)	Long bone	1
E28/S78	30A	37DD1A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E28/S78	30A	37DD1B	Isi-c	L. Paleo.		Kinosternidae	Peripheral	1
E28/S78	30A	37DD1B	Isi-c	L. Paleo.		Vertebrata	Indeterminate	1
E28/S78	30B	37DD2A	Isi-c	L. Paleo.		Vertebrata	Indeterminate	2
E28/S78	30B	37DD2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E28/S78	30B	37DD2D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	30B	37DD2D	Isi-c	L. Paleo.		Testudinata	Peripheral	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E28/S78	30B	37DD2D	Isi-c	L. Paleo.	f187	Vertebrata	Indeterminate	1
E28/S78	31	37EE	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7
E28/S78	31A	37EE1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	31A	37EE1D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E28/S78	31A	37EE1D	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Tibia	1
E28/S78	31A	37EE1D	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
E28/S78	31B	37EE2B	Isi-c	L. Paleo.		Leporidae	Permanent tooth	1
E28/S78	31B	37EE2C	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	31B	37EE2C	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	32A	37FF1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	32A	37FF1A	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	32A	37FF1B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	3
E28/S78	32A	37FF1B	Icl/Isi-c	Paleoindian		Testudinata	Shell fragment	1
E28/S78	32A	37FF1D	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	32A	37FF1D	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E28/S78	32B	37FF2B	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E28/S78	32B	37FF2B	Icl/Isi-c	Paleoindian		Testudinata	Shell fragment	1
E28/S78	32B	37FF2B	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E28/S78	32B	37FF2D	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E28/S78	32B	37FF2D	Icl/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	1
E28/S78	32B	37FF2D	Icl/Isi-c	Paleoindian		Osteichthyes (Small)	Atlas	1
E28/S78	32B-33A	37FF2GG	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
E28/S78	33A	37GG1A	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Podial	1
E28/S78	33A	37GG1B	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	33B	37GG2B	Icl	E. Paleo.		Mammalia (Small)	Humerus	1
E28/S78	33B	37GG2C	Icl	E. Paleo.		Mammalia (Medium/large)	Caudal vertebra	1
E28/S78	33B	37GG2C	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	33B	37GG2C	Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	3
E28/S78	34A	37HH1A	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	34A	37HH1B	Icl	E. Paleo.		Mammalia (Large)	Indeterminate	2
E28/S78	34A	37HH1B	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E28/S78	34A	37HH1B	Icl	E. Paleo.		Serpentes	Dorsal vertebra	1
E28/S78	34A	37HH1B	Icl	E. Paleo.		Vertebrata	Indeterminate	5
E28/S78	34A	37HH1C	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	34B	37HH2A	Icl	E. Paleo.		Serpentes	Dorsal vertebra	1
E28/S78	34B	37HH2C	Icl	E. Paleo.		Serpentes	Dorsal vertebra	1
E28/S78	34B	37HH2C	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E28/S78	34B	37HH2D	Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E28/S78	35A	37II1A	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	35A	37II1A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	35A	37II1B	Icl	E. Paleo.		Serpentes	Dorsal vertebra	1
E28/S78	35A	37II1B	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	35A	37II1D	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	35A	37II1D	Icl	E. Paleo.		Mammalia (Small)	Caudal vertebra	1
E28/S78	35A	37II1D	Icl	E. Paleo.		Osteichthyes (Small)	Amphicelous vertebra	1
E28/S78	35A	37II1D	Icl	E. Paleo.		Small vertebrate, class ind.	Caudal vertebra	1
E28/S78	35A	37II1D	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	35B	37II2A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	36A	37JJ1A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	36A	37JJ1C	Icl	E. Paleo.		Carnivora	Tooth, perm./decid. ind.	1
E28/S78	36A	37JJ1D	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	36A	37JJ1D	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	36B	37JJ2A	Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	36B	37JJ2A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	36B	37JJ2B	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	36B	37JJ2C	Icl	E. Paleo.		Vertebrata	Indeterminate	5
E28/S78	36B	37JJ2D	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	37A	37KK1C	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	37A	37KK1D	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E28/S78	37A	37KK1D	Icl	E. Paleo.		Small/Medium Vertebrata	Middle phalange	1
E28/S78	37A	37KK1D	Icl	E. Paleo.		Vertebrata	Indeterminate	15
E28/S78	37B	37KK2A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	37B	37KK2B	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	37B	37KK2B	Icl	E. Paleo.		Vertebrata	Indeterminate	3
E28/S78	37B	37KK2D	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	37B	37KK2D	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	10
E28/S78	38A	37LL1B	Icl	E. Paleo.		Mammalia (Medium)	Pelvis	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E28/S78	38A	37LL1B	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E28/S78	38A	37LL1B	Icl	E. Paleo.		Vertebrata	Indeterminate	8
E28/S78	38A	37LL1C	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E28/S78	38A	37LL1D	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	38B	37LL2A	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	38B	37LL2B	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	3
E28/S78	38B	37LL2B	Icl	E. Paleo.		Vertebrata	Indeterminate	4
E28/S78	38B	37LL2C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E28/S78	38B	37LL2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	7
E28/S78	39A	37MM1A	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	39A	37MM1A	Icl	E. Paleo.		Vertebrata	Indeterminate	9
E28/S78	39A	37MM1B	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E28/S78	39A	37MM1C	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Permanent tooth	1
E28/S78	39A	37MM1C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	39A	37MM1D	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	39A	37MM1D	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	39A	37MM1D	Isi	E. Paleo.		Vertebrata	Indeterminate	3
E28/S78	39A&B	37MM1&	Isi/Icl	E. Paleo.		<i>Equus</i> sp.	Central tarsal bone	1
E28/S78	39B	37MM2A	Isi/Icl	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E28/S78	39B	37MM2A	Isi/Icl	E. Paleo.		Testudinata	Shell fragment	1
E28/S78	39B	37MM2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	5
E28/S78	39B	37MM2B	Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	39B	37MM2C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E28/S78	39B	37MM2D	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E28/S78	39B	37MM2D	Isi	E. Paleo.		Vertebrata	Indeterminate	9
E28/S78	40A	37NN1A	Isi/Icl	E. Paleo.		Rodentia (Small)	Permanent tooth	1
E28/S78	40A	37NN1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E28/S78	40A	37NN1B	Icl	E. Paleo.		Carnivora	Middle phalange	1
E28/S78	40A	37NN1B	Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	4
E28/S78	40A	37NN1B	Icl	E. Paleo.		Vertebrata	Indeterminate	15
E28/S78	40A	37NN1C	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E28/S78	40A	37NN1C	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E28/S78	40A	37NN1C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	2
E28/S78	40B	37NN2A	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	40B	37NN2A	Isi/Icl	E. Paleo.		Small/Medium Vertebrata	Phalange	1
E28/S78	40B	37NN2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	40B	37NN2B	Icl	E. Paleo.		cf. <i>Sylvilagus</i> sp.	Humerus	1
E28/S78	40B	37NN2B	Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	40B	37NN2B	Icl	E. Paleo.		Vertebrata	Indeterminate	2
E28/S78	40B	37NN2C	Isi/Icl	E. Paleo.		Phasianidae	Humerus	1
E28/S78	40B	37NN2C	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	40B	37NN2D	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	6
E28/S78	40B	37NN2D	Isi	E. Paleo.		Vertebrata	Indeterminate	3
E28/S78	41A	37OO1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E28/S78	41A	37OO1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	41A	37OO1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Long bone	1
E28/S78	41A	37OO1B	Isi/Icl	E. Paleo.		Mammalia (Small)	Metapodial	1
E28/S78	41A	37OO1B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	2
E28/S78	41A	37OO1B	Isi/Icl	E. Paleo.		Serpentes	Dorsal vertebra	2
E28/S78	41A	37OO1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	15
E28/S78	41A	37OO1C	Isi	E. Paleo.		Vertebrata	Indeterminate	6
E28/S78	41A&B	37OO1/2A	Isi/Icl	E. Paleo.		Mammalia (Very large)	Vertebra	3
E28/S78	41B	37OO2A	Isi/Icl	E. Paleo.		<i>Bison</i> sp.	Fused 3rd & 4th metacarpal	1
E28/S78	41B	37OO2A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	5
E28/S78	41B	37OO2B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	41B	37OO2B	Isi/Icl	E. Paleo.		Serpentes	Dorsal vertebra	1
E28/S78	41B	37OO2B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	4
E28/S78	41B	37OO2C	Isi	E. Paleo.		Vertebrata	Indeterminate	5
E28/S78	42A	37PP1A	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E28/S78	42A	37PP1A	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	11
E28/S78	42A	37PP1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	6
E28/S78	42A	37PP1B	Isi/Icl	E. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
E28/S78	42A	37PP1B	Isi/Icl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	1
E28/S78	42A	37PP1B	Isi/Icl	E. Paleo.		Vertebrata	Indeterminate	11
E28/S78	42A	37PP1C	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	42A	37PP1C	Isi	E. Paleo.		Vertebrata	Distal phalange	1
E28/S78	42A	37PP1C	Isi	E. Paleo.		Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E28/S78	42A	37PP1D	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	42B	37PP2A	Isi/lcl	E. Paleo.		Colubridae	Dorsal vertebra	1
E28/S78	42B	37PP2A	Isi/lcl	E. Paleo.		Mammalia (Large)	Long bone	1
E28/S78	42B	37PP2A	Isi/lcl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	11
E28/S78	42B	37PP2A	Isi/lcl	E. Paleo.		Mammalia (Very large)	Indeterminate	2
E28/S78	42B	37PP2A	Isi/lcl	E. Paleo.		Mammalia (Very large)	Vertebra	1
E28/S78	42B	37PP2A	Isi/lcl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	3
E28/S78	42B	37PP2A	Isi/lcl	E. Paleo.		Vertebrata	Indeterminate	50
E28/S78	42B	37PP2B	Isi/lcl	E. Paleo.		Leporidae	Permanent tooth	2
E28/S78	42B	37PP2B	Isi/lcl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	42B	37PP2B	Isi/lcl	E. Paleo.		Medium/Large Vertebrata	Indeterminate	7
E28/S78	42B	37PP2B	Isi/lcl	E. Paleo.		Vertebrata	Indeterminate	11
E28/S78	42B	37PP2C	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	42B	37PP2D	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	43A	37QQ1A	Isi/lcl	E. Paleo.		Mammalia (Large)	Indeterminate	1
E28/S78	43A	37QQ1A	Isi/lcl	E. Paleo.		Mammalia (Medium/large)	Indeterminate	2
E28/S78	43A	37QQ1A	Isi/lcl	E. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
E28/S78	43A	37QQ1A	Isi/lcl	E. Paleo.		Vertebrata	Indeterminate	3
E28/S78	43A	37QQ1B	Isi	E. Paleo.		Leporidae	Permanent tooth	1
E28/S78	43A	37QQ1B	Isi	E. Paleo.		Medium/Large Vertebrata	Indeterminate	5
E28/S78	43A	37QQ1B	Isi	E. Paleo.		Small/Medium Vertebrata	Long bone	1
E28/S78	43A	37QQ1B	Isi	E. Paleo.		Vertebrata	Indeterminate	3
E28/S78	43A	37QQ1C	Isi	E. Paleo.		Mammalia (Medium/large)	Indeterminate	1
E28/S78	43A	37QQ1C	Isi	E. Paleo.		Vertebrata	Distal phalange	1
E28/S78	43A	37QQ1C	Isi	E. Paleo.		Vertebrata	Indeterminate	4
E28/S78	43A	37QQ1D	Isi	E. Paleo.		Vertebrata	Indeterminate	3
E28/S78	43B	37QQ2A	Isi	E. Paleo.	f188?	Mammalia (Large)	Indeterminate	1
E28/S78	43B	37QQ2C	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	43B	37QQ2D	Isi	E. Paleo.		Osteichthyes	Tooth	1
E28/S78	44A	37RR1A	Isi	E. Paleo.		<i>Neotoma</i> sp.	Permanent tooth	1
E28/S78	44A	37RR1A	Isi	E. Paleo.		Vertebrata	Indeterminate	2
E28/S78	44A	37RR1B	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	45A	37SS1A	Isi	E. Paleo.		Vertebrata	Indeterminate	1
E28/S78	45B	37SS2B	Isi	E. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E28/S78	45B	37SS2B	Isi	E. Paleo.		Vertebrata	Indeterminate	2
E40/S70	0	36?	Unknown	Unassigned		Mammalia (Medium/large)	Long bone	1
E40/S70	1	36A	IIIc	L. Prehist.		Vertebrata	Indeterminate	22
E40/S70	2	36B	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Third carpal bone	1
E40/S70	2	36B	IIIc	L. Archaic/L. Prehist.		Kinosternidae	Peripheral	1
E40/S70	2	36B	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	2
E40/S70	2	36B	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	42
E40/S70	3	36C	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E40/S70	3	36C	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
E40/S70	3	36C	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	2
E40/S70	3	36C	IIIc	L. Archaic		Vertebrata	Indeterminate	61
E40/S70	4	36D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	2
E40/S70	4	36D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E40/S70	4	36D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	2
E40/S70	4	36D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Radius	1
E40/S70	4	36D	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Third carpal bone	1
E40/S70	4	36D	IIIc	L. Archaic		<i>Bison</i> sp.	Humerus	1
E40/S70	4	36D	IIIc	L. Archaic		Carnivora	Metapodial	1
E40/S70	4	36D	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	5
E40/S70	4	36D	IIIc	L. Archaic		Mammalia (Large)	Long bone	3
E40/S70	4	36D	IIIc	L. Archaic		Mammalia (Large)	Lumbar vertebra	1
E40/S70	4	36D	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	28
E40/S70	4	36D	IIIc	L. Archaic		Mammalia (Medium/large)	Vertebra	1
E40/S70	4	36D	IIIc	L. Archaic		<i>Sciurus</i> sp.	Humerus	1
E40/S70	4	36D	IIIc	L. Archaic		Serpentes	Dorsal vertebra	1
E40/S70	4	36D	IIIc	L. Archaic		Testudinata	Peripheral	1
E40/S70	4	36D	IIIc	L. Archaic		Vertebrata	Indeterminate	121
E40/S70	4	36D	IIIc	L. Archaic		Vertebrata	Long bone	1
E40/S70	5	36E	IIIc	L. Archaic		<i>Antilocapra americana</i>	Permanent tooth	1
E40/S70	5	36E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	2
E40/S70	5	36E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	5
E40/S70	5	36E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal sesamoid	1
E40/S70	5	36E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Tibia	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E40/S70	5	36E	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Tooth, perm./decid. ind.	1
E40/S70	5	36E	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E40/S70	5	36E	IIIc	L. Archaic		Kinosternidae	Peripheral	1
E40/S70	5	36E	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	3
E40/S70	5	36E	IIIc	L. Archaic		Mammalia (Large)	Long bone	3
E40/S70	5	36E	IIIc	L. Archaic		Mammalia (Large)	Pelvis	1
E40/S70	5	36E	IIIc	L. Archaic		Mammalia (Medium)	Middle phalange	1
E40/S70	5	36E	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	32
E40/S70	5	36E	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	11
E40/S70	5	36E	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E40/S70	5	36E	IIIc	L. Archaic		Medium/Large Vertebrata	Indeterminate	12
E40/S70	5	36E	IIIc	L. Archaic		Medium/Large Vertebrata	Long bone	1
E40/S70	5	36E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Calcaneus	1
E40/S70	5	36E	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Femur	1
E40/S70	5	36E	IIIc	L. Archaic		<i>Procyon lotor</i>	Permanent tooth	1
E40/S70	5	36E	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	1
E40/S70	5	36E	IIIc	L. Archaic		Testudinata	Pleural	1
E40/S70	5	36E	IIIc	L. Archaic		Testudinata	Shell fragment	2
E40/S70	5	36E	IIIc	L. Archaic		Vertebrata	Indeterminate	160
E40/S70	5	36E	IIIc	L. Archaic		Vertebrata	Long bone	1
E40/S70	6	36F	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Astragalus	1
E40/S70	6	36F	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
E40/S70	6	36F	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
E40/S70	6	36F	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
E40/S70	6	36F	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Middle phalange	1
E40/S70	6	36F	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E40/S70	6	36F	IIIc	L. Archaic		Colubridae	Dorsal vertebra	1
E40/S70	6	36F	IIIc	L. Archaic		Kinosternidae	Hypoplastron	1
E40/S70	6	36F	IIIc	L. Archaic		Leporidae	Humerus	1
E40/S70	6	36F	IIIc	L. Archaic		Mammalia (Large)	Cranium	1
E40/S70	6	36F	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	2
E40/S70	6	36F	IIIc	L. Archaic		Mammalia (Large)	Long bone	6
E40/S70	6	36F	IIIc	L. Archaic		Mammalia (Large)	Mandible	1
E40/S70	6	36F	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	17
E40/S70	6	36F	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	2
E40/S70	6	36F	IIIc	L. Archaic		Mammalia (Medium/large)	Podial	1
E40/S70	6	36F	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E40/S70	6	36F	IIIc	L. Archaic		Mammalia (Small/medium)	Rib	1
E40/S70	6	36F	IIIc	L. Archaic		Testudinata	Neural	1
E40/S70	6	36F	IIIc	L. Archaic		Vertebrata	Indeterminate	142
E40/S70	7	36G	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused second & third tarsal	2
E40/S70	7	36G	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Third carpal bone	1
E40/S70	7	36G	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Tibia	1
E40/S70	7	36G	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Ulna	1
E40/S70	7	36G	IIIb/c	M. Archaic		Artiodactyla	Tooth, perm./decid. ind.	2
E40/S70	7	36G	IIIb/c	M. Archaic		cf. <i>Odocoileus</i> sp.	Fused 3rd & 4th metacarpal	1
E40/S70	7	36G	IIIb/c	M. Archaic		cf. <i>Sylvilagus</i> sp.	Calcaneus	1
E40/S70	7	36G	IIIb/c	M. Archaic		Leporidae	Metacarpal 4	1
E40/S70	7	36G	IIIb/c	M. Archaic		Mammalia (Large)	Indeterminate	2
E40/S70	7	36G	IIIb/c	M. Archaic		Mammalia (Large)	Long bone	3
E40/S70	7	36G	IIIb/c	M. Archaic		Mammalia (Large)	Thoracic vertebra	1
E40/S70	7	36G	IIIb/c	M. Archaic		Mammalia (Large)	Ulna	1
E40/S70	7	36G	IIIb/c	M. Archaic		Mammalia (Medium)	Proximal phalange	1
E40/S70	7	36G	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	18
E40/S70	7	36G	IIIb/c	M. Archaic		Mammalia (Medium/large)	Long bone	13
E40/S70	7	36G	IIIb/c	M. Archaic		<i>Odocoileus</i> sp.	Middle phalange	1
E40/S70	7	36G	IIIb/c	M. Archaic		<i>Odocoileus</i> sp.	Phalange	1
E40/S70	7	36G	IIIb/c	M. Archaic		Serpentes	Dorsal vertebra	2
E40/S70	7	36G	IIIb/c	M. Archaic		Small/Medium Vertebrata	Long bone	2
E40/S70	7	36G	IIIb/c	M. Archaic		Testudinata	Peripheral	1
E40/S70	7	36G	IIIb/c	M. Archaic		Testudinata	Pleural	1
E40/S70	7	36G	IIIb/c	M. Archaic		Testudinata	Shell fragment	3
E40/S70	7	36G	IIIb/c	M. Archaic		Vertebrata	Indeterminate	161
E40/S70	8	36H	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Long bone	2
E40/S70	8	36H	IIIb/c	Early/M. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
E40/S70	8	36H	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	19
E40/S70	9	36I	IIIb/c	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
E40/S70	9	36I	IIIb/c	Early/M. Archaic	f154	<i>Canis</i> sp.	Permanent tooth	1
E40/S70	9	36I	IIIb/c	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	8
E40/S70	9	36I	IIIb/c	Early/M. Archaic		<i>Odocoileus</i> sp.	Antler	2
E40/S70	9	36I	IIIb/c	Early/M. Archaic		Rodentia (Small)	Permanent tooth	1
E40/S70	9	36I	IIIb/c	Early/M. Archaic		<i>Sigmodon hispidus</i>	Mandible	1
E40/S70	9	36I	IIIb/c	Early/M. Archaic		<i>Sigmodon hispidus</i>	Permanent tooth	1
E40/S70	9	36I	IIIb/c	Early/M. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 2	1
E40/S70	9	36I	IIIb/c	Early/M. Archaic		Testudinata	Shell fragment	1
E40/S70	9	36I	IIIb/c	Early/M. Archaic		Vertebrata	Indeterminate	68
E40/S70	10	36J	IIIb	Early/M. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
E40/S70	10	36J	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	2
E40/S70	10	36J	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E40/S70	10	36J	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	36
E40/S70	10	36J	IIIb	Early/M. Archaic		Vertebrata	Long bone	1
E40/S70	11	36K	IIIb	Early/M. Archaic		Mammalia (Large)	Long bone	1
E40/S70	11	36K	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	5
E40/S70	11	36K	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	65
E40/S70	11	36K	IIIb	Early/M. Archaic		Vertebrata	Middle phalange	1
E40/S70	12	36L	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
E40/S70	12	36L	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	8
E40/S70	13	36M	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
E40/S70	13	36M	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	8
E40/S70	13	36M	IIIa	E. Archaic		Vertebrata	Indeterminate	17
E40/S70	14	36N	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	3
E40/S70	14	36N	IIIa	E. Archaic		Medium/Large Vertebrata	Long bone	1
E40/S70	14	36N	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	4
E40/S70	14	36N	IIIa	E. Archaic		Vertebrata	Indeterminate	30
E40/S70	15	36O	IIIa	E. Archaic		Artiodactyla	Tooth, perm./decid. ind.	2
E40/S70	15	36O	IIIa	E. Archaic		Vertebrata	Indeterminate	38
E40/S70	16	36P	IIIa	E. Archaic		Mammalia (Large)	Indeterminate	1
E40/S70	16	36P	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	6
E40/S70	16	36P	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	4
E40/S70	16	36P	IIIa	E. Archaic		Small/Medium Vertebrata	Indeterminate	1
E40/S70	16	36P	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	2
E40/S70	16	36P	IIIa	E. Archaic		Vertebrata	Indeterminate	9
E40/S70	17	36Q	IIIa	E. Archaic		Vertebrata	Indeterminate	37
E40/S70	18	36R	II/IIIa	L. Paleo./E. Archaic		<i>Antilocapra/Odocoileus</i>	Phalange	1
E40/S70	18	36R	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	10
E40/S70	18	36R	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E40/S70	18	36R	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	5
E40/S70	18	36R	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	3
E40/S70	18	36R	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	37
E40/S70	19	36S	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	3
E40/S70	19	36S	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
E40/S70	19	36S	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	24
E40/S70	20	36T	II/IIIa	L. Paleo./E. Archaic		Mammalia (Large)	Proximal phalange	1
E40/S70	20	36T	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
E40/S70	20	36T	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	13
E40/S70	21	36U	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	10
E40/S70	21	36U	II	L. Paleo.		Vertebrata	Indeterminate	5
E40/S70	22	36V	I/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	7
E40/S70	22	36V	I/II	L. Paleo.		Mammalia (Medium/large)	Long bone	4
E40/S70	22	36V	I/II	L. Paleo.		Mammalia (Medium/large)	Vertebra	1
E40/S70	22	36V	I/II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
E40/S70	22	36V	I/II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
E40/S70	22	36V	I/II	L. Paleo.		Vertebrata	Indeterminate	7
E40/S70	23	36W	I	Paleoindian		Vertebrata	Indeterminate	1
E40/S70	24	36X	I	Paleoindian		Vertebrata	Indeterminate	2
E40/S70	25	36Y	I	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
E40/S70	25	36Y	I	Paleoindian		Mammalia (Medium/large)	Long bone	1
E40/S70	26	36Z	I	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
E40/S70	28	36BBD	I	Paleoindian		Mammalia (Medium/large)	Long bone	1
E40/S70	28	36BBD	I	Paleoindian		Vertebrata	Indeterminate	2
T-Pit1	1	TP1A	Unknown	L. Prehist.		Mammalia (Medium/large)	Indeterminate	8
T-Pit1	1	TP1A	Unknown	L. Prehist.		Mammalia (Medium/large)	Long bone	5
T-Pit1	1	TP1A	Unknown	L. Prehist.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
T-Pit1	1	TP1A	Unknown	L. Prehist.		Medium/Large Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
T-Pit1	1	TP1A	Unknown	L. Prehist.		Vertebrata	Indeterminate	7
T-Pit1	2	TP1B	Unknown	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	1
T-Pit1	2	TP1B	Unknown	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	7
T-Pit1	2	TP1B	Unknown	L. Archaic/L. Prehist.		Medium/Large Vertebrata	Indeterminate	1
T-Pit1	2	TP1B	Unknown	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	1
T-Pit1	3	TP1C	Unknown	L. Archaic		<i>Antilocapra/Odocoileus</i>	Mandible	1
T-Pit1	3	TP1C	Unknown	L. Archaic		Mammalia (Medium/large)	Indeterminate	1
T-Pit1	3	TP1C	Unknown	L. Archaic		Mammalia (Medium/large)	Long bone	1
T-Pit1	5	TP1E	Unknown	Unassigned		Medium/Large Vertebrata	Indeterminate	1
T-Pit1	6	TP1F	Unknown	Unassigned		Vertebrata	Indeterminate	2
T-Pit1	9	TP1I	Unknown	Unassigned		<i>Antilocapra/Odocoileus</i>	Tooth, perm./decid. ind.	1
T-Pit2	1	TP2A	Unknown	Unassigned		Mammalia (Large)	Tooth, perm./decid. ind.	2
T-Pit2	3	TP2C	Unknown	Unassigned		Mammalia (Medium/large)	Long bone	1
T-Pit2	4	TP2D	Unknown	Unassigned		Mammalia (Large)	Long bone	1
T-Pit2	4	TP2D	Unknown	Unassigned		Mammalia (Medium/large)	Indeterminate	1
T-Pit2	4	TP2D	Unknown	Unassigned		Mammalia (Medium/large)	Long bone	1
T-Pit2	4	TP2D	Unknown	Unassigned		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
T-Pit2	2	TP3B	Unknown	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	2
T-Pit3	2	TP3B	Unknown	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	4
T-Pit3	3	TP3C	Unknown	L. Archaic		Mammalia (Medium/large)	Indeterminate	2
T-Pit3	4	TP3D	Unknown	L. Archaic		Mammalia (Medium/large)	Indeterminate	4
T-Pit3	4	TP3D	Unknown	L. Archaic		Medium/Large Vertebrata	Indeterminate	1
T-Pit3	4	TP3D	Unknown	L. Archaic		Vertebrata	Indeterminate	2
T-Pit3	5	TP3E	Unknown	L. Archaic		Mammalia (Medium/large)	Indeterminate	6
T-Pit3	5	TP3E	Unknown	L. Archaic		Vertebrata	Indeterminate	2
T-Pit3	6	TP3F	Unknown	Unassigned		<i>Antilocapra/Odocoileus</i>	Humerus	1
T-Pit3	6	TP3F	Unknown	Unassigned		Mammalia (Medium/large)	Alveolar ridge fragment	1
T-Pit3	6	TP3F	Unknown	Unassigned		Mammalia (Medium/large)	Indeterminate	4
T-Pit3	6	TP3F	Unknown	Unassigned		Mammalia (Medium/large)	Long bone	3
T-Pit3	6	TP3F	Unknown	Unassigned		<i>Odocoileus</i> sp.	Permanent tooth	1
T-Pit3	6	TP3F	Unknown	Unassigned		Small/Medium Vertebrata	Indeterminate	1
T-Pit3	6	TP3F	Unknown	Unassigned		Vertebrata	Indeterminate	4
T-Pit3	7	TP3G	Unknown	Unassigned		Mammalia (Medium/large)	Indeterminate	5
T-Pit3	7	TP3G	Unknown	Unassigned		Medium/Large Vertebrata	Indeterminate	1
T-Pit3	7	TP3G	Unknown	Unassigned		Vertebrata	Indeterminate	5
T-Pit3	8	TP3H	Unknown	Unassigned		Mammalia (Medium/large)	Indeterminate	1
T-Pit3	8	TP3H	Unknown	Unassigned		Mammalia (Medium/large)	Long bone	1
T-Pit3	9	TP3I	Unknown	Unassigned		<i>Antilocapra/Odocoileus</i>	Metapodial	1
T-Pit3	9	TP3I	Unknown	Unassigned		Mammalia (Medium/large)	Indeterminate	3

TABLE A10-2

Provenience of Faunal Materials Recovered from 1/8-inch Screens, TARL Excavations

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
Surface	0	707	?	Unassigned		Mammalia (Large)	Long bone	1
11	5	323	IIIb/c	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
11	5	323	IIIb/c	L. Archaic		<i>Antilocapra/Odocoileus</i>	Ulnar carpal bone	1
11	5	323	IIIb/c	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
11	5	323	IIIb/c	L. Archaic		Mammalia (Large)	Indeterminate	1
11	5	323	IIIb/c	L. Archaic		Mammalia (Medium/large)	Cranium	1
11	5	323	IIIb/c	L. Archaic		Mammalia (Medium/large)	Indeterminate	23
11	5	323	IIIb/c	L. Archaic		Medium/Large Vertebrata	Indeterminate	1
11	5	323	IIIb/c	L. Archaic		Medium/Large Vertebrata	Long bone	1
11	5	323	IIIb/c	L. Archaic		Small/Medium Vertebrata	Long bone	4
11	5	323	IIIb/c	L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
11	5	323	IIIb/c	L. Archaic		Vertebrata	Indeterminate	40
11	5	575	IIIb/c	L. Archaic		Mammalia (Large)	Long bone	1
11	6	405	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Phalange	1
11	6	405	IIIb/c	Middle/L. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
11	6	405	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Indeterminate	1
11	6	405	IIIb/c	Middle/L. Archaic		Mammalia (Medium)	Femur	1
11	6	405	IIIb/c	Middle/L. Archaic		Mammalia (Medium)	Middle phalange	1
11	6	405	IIIb/c	Middle/L. Archaic		Mammalia (Medium)	Rib	1
11	6	405	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	13
11	6	405	IIIb/c	Middle/L. Archaic		Serpentes	Dorsal vertebra	1
11	6	405	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	11
11	6	405	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Central tarsal bone	1
11	6	405	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
11	6	405	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	101
11	7	474	IIIb	Middle/L. Archaic		Colubridae	Dorsal vertebra	1
11	7	474	IIIb	Middle/L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
11	7	474	IIIb	Middle/L. Archaic		<i>Lepus californicus</i>	Radius	1
11	7	474	IIIb	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	1
11	7	474	IIIb	Middle/L. Archaic		Mammalia (Small)	Calcaneus	1
11	7	474	IIIb	Middle/L. Archaic		Mammalia (Small)	Humerus	1
11	7	474	IIIb	Middle/L. Archaic		Mammalia (Small)	Metapodial	1
11	7	474	IIIb	Middle/L. Archaic		Mammalia (Small)	Permanent tooth	1
11	7	474	IIIb	Middle/L. Archaic		Mammalia (Small)	Radius	1
11	7	474	IIIb	Middle/L. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
11	7	474	IIIb	Middle/L. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
11	7	474	IIIb	Middle/L. Archaic		Serpentes	Dorsal vertebra	4
11	7	474	IIIb	Middle/L. Archaic		Small/Medium Vertebrata	Distal phalange	1
11	7	474	IIIb	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	10
11	7	474	IIIb	Middle/L. Archaic		Small/Medium Vertebrata	Proximal phalange	1
11	7	474	IIIb	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
11	7	474	IIIb	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	1
11	7	474	IIIb	Middle/L. Archaic		Testudinata	Shell fragment	1
11	7	474	IIIb	Middle/L. Archaic		Vertebrata	Indeterminate	88
11	8	508	IIIb	M. Archaic		Anura	Humerus	1
11	8	508	IIIb	M. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
11	8	508	IIIb	M. Archaic		Colubridae	Dorsal vertebra	4
11	8	508	IIIb	M. Archaic		Cricetidae (Small)	Femur	1
11	8	508	IIIb	M. Archaic		Leporidae	Cranium	1
11	8	508	IIIb	M. Archaic		Leporidae	Distal phalange	1
11	8	508	IIIb	M. Archaic		Leporidae	Metapodial	1
11	8	508	IIIb	M. Archaic		<i>Lepus californicus</i>	Central tarsal bone	1
11	8	508	IIIb	M. Archaic		<i>Lepus californicus</i>	Humerus	1
11	8	508	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	3
11	8	508	IIIb	M. Archaic		Mammalia (Large)	Indeterminate	1
11	8	508	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	4
11	8	508	IIIb	M. Archaic		Mammalia (Small)	Alveolar ridge fragment	1
11	8	508	IIIb	M. Archaic		Mammalia (Small)	Femur	1
11	8	508	IIIb	M. Archaic		Mammalia (Small)	Metapodial	1
11	8	508	IIIb	M. Archaic		Mammalia (Small)	Permanent tooth	1
11	8	508	IIIb	M. Archaic		<i>Neotoma</i> sp.	Astragalus	1
11	8	508	IIIb	M. Archaic		<i>Neotoma</i> sp.	Calcaneus	2
11	8	508	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	13
11	8	508	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
11	8	508	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
11	8	508	IIIb	M. Archaic		Testudinata	Carapace fragment ind.	1
11	8	508	IIIb	M. Archaic		Vertebrata	Indeterminate	133
11	10	552	IIIb	M. Archaic		Colubridae	Dorsal vertebra	3
11	10	552	IIIb	M. Archaic		Cricetidae (Medium)	Femur	1
11	10	552	IIIb	M. Archaic		Mammalia (Small)	Caudal vertebra	2
11	10	552	IIIb	M. Archaic		Mammalia (Small)	Cranium	1
11	10	552	IIIb	M. Archaic		Mammalia (Small)	Metapodial	1
11	10	552	IIIb	M. Archaic		Rodentia (Small)	Permanent tooth	1
11	10	552	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	19
11	10	552	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
11	10	552	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
11	10	552	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	6
11	10	552	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Ulna	1
11	10	552	IIIb	M. Archaic		Testudinata	Shell fragment	2
11	10	552	IIIb	M. Archaic		Vertebrata	Indeterminate	71
11	11	570	IIIa/b	Early/M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
11	11	570	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	3
11	11	570	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
11	11	570	IIIa/b	Early/M. Archaic		Mammalia (Small)	Proximal phalange	1
11	11	570	IIIa/b	Early/M. Archaic		Serpentes	Dorsal vertebra	1
11	11	570	IIIa/b	Early/M. Archaic		Small/Medium Vertebrata	Long bone	13
11	11	570	IIIa/b	Early/M. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	1
11	11	570	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	57
11	12	611	IIIa/b	E. Archaic		Mammalia (Large)	Long bone	1
11	12	611	IIIa/b	E. Archaic		Mammalia (Medium)	Patella	1
11	12	611	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	7
11	12	611	IIIa/b	E. Archaic		Mammalia (Micro)	Permanent tooth	1
11	12	611	IIIa/b	E. Archaic		Mammalia (Small)	Metapodial	1
11	12	611	IIIa/b	E. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
11	12	611	IIIa/b	E. Archaic		Small vertebrate, class ind.	Middle phalange	2
11	12	611	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	10
11	12	611	IIIa/b	E. Archaic		Vertebrata	Indeterminate	40
11	13	658	IIIa	E. Archaic		Kinosternidae	Peripheral	1
11	13	658	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	6
11	13	658	IIIa	E. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
11	13	658	IIIa	E. Archaic		Rodentia (Medium)	Caudal vertebra	1
11	13	658	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
11	13	658	IIIa	E. Archaic		Testudinata	Carapace fragment ind.	1
11	13	658	IIIa	E. Archaic		Vertebrata	Indeterminate	13
12	0	681	?	Unassigned		Mammalia (Medium/large)	Indeterminate	5
12	0	681	?	Unassigned		Mammalia (Medium/large)	Long bone	3
12	0	681	?	Unassigned		Vertebrata	Indeterminate	14
12	4	202	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	1
12	12B	613	IIIa/b	E. Archaic	213	<i>Lepus californicus</i>	Humerus	1
12	69	2501	Igl	E. Paleoindian		Vertebrata	Indeterminate	1
13	3	176	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Metapodial	1
13	3	176	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Phalange	1
13	3	176	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	1
13	3	176	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Long bone	1
13	3	176	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	31
13	3	176	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	8
13	3	176	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
13	3	176	IIIc	L. Archaic/L. Prehist.		Mammalia (Small)	Metapodial	1
13	3	176	IIIc	L. Archaic/L. Prehist.		Small/Medium Vertebrata	Long bone	7
13	3	176	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	5
13	5	327	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
13	5	327	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal abaxial sesamoid	1
13	5	327	IIIc	L. Archaic		Anura	Humerus	1
13	5	327	IIIc	L. Archaic		cf. Leporidae	Tibia	1
13	5	327	IIIc	L. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
13	5	327	IIIc	L. Archaic		Leporidae	Metacarpal 3	1
13	5	327	IIIc	L. Archaic		Mammalia (Medium/large)	Cranium	1
13	5	327	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	11
13	5	327	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	14
13	5	327	IIIc	L. Archaic		Mammalia (Medium/large)	Scapula	1
13	5	327	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
13	5	327	IIIc	L. Archaic		Mammalia (Small)	Femur	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
13	5	327	IIIc	L. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
13	5	327	IIIc	L. Archaic		Mammalia (Small/medium)	Metapodial	1
13	5	327	IIIc	L. Archaic		Neotoma sp.	Permanent tooth	2
13	5	327	IIIc	L. Archaic		Rodentia (Medium)	Permanent tooth	2
13	5	327	IIIc	L. Archaic		Serpentes	Dorsal vertebra	1
13	5	327	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	17
13	5	327	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
13	5	327	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	1
13	5	327	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	3
13	5	327	IIIc	L. Archaic		Testudinata	Neural	1
13	5	327	IIIc	L. Archaic		Testudinata	Pleural	1
13	5	327	IIIc	L. Archaic		Vertebrata	Indeterminate	290
13	5	376	IIIc	L. Archaic		Mammalia (Large)	Long bone	15
13	5	376	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	2
13	5	386	IIIc	L. Archaic		Mammalia (Very large)	Long bone	1
13	6	447	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Femur	1
13	6	447	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
13	6	447	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Middle phalange	1
13	6	447	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal abaxial sesamoid	1
13	6	447	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal axial sesamoid	1
13	6	447	IIIc	L. Archaic		Colubridae	Dorsal vertebra	1
13	6	447	IIIc	L. Archaic		Leporidae	Permanent tooth	1
13	6	447	IIIc	L. Archaic		<i>Lepus californicus</i>	Humerus	1
13	6	447	IIIc	L. Archaic		Mammalia (Large)	Long bone	2
13	6	447	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	24
13	6	447	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	7
13	6	447	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
13	6	447	IIIc	L. Archaic		Mammalia (Small/medium)	Patella	1
13	6	447	IIIc	L. Archaic		Medium vertebrate, class ind.	Phalange	1
13	6	447	IIIc	L. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
13	6	447	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Dist. phalange of paradigit	1
13	6	447	IIIc	L. Archaic		<i>Sigmodon hispidus</i>	Mandible	1
13	6	447	IIIc	L. Archaic		<i>Sigmodon hispidus</i>	Permanent tooth	1
13	6	447	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	3
13	6	447	IIIc	L. Archaic		Small/Medium Vertebrata	Proximal phalange	1
13	6	447	IIIc	L. Archaic		Testudinata	Peripheral	1
13	6	447	IIIc	L. Archaic		Testudinata	Plastron fragment ind.	1
13	6	447	IIIc	L. Archaic		Testudinata	Shell fragment	5
13	6	447	IIIc	L. Archaic		Vertebrata	Indeterminate	230
13	7	490	IIIb/c	Middle/L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
13	7	490	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	2
13	7	490	IIIb/c	Middle/L. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
13	7	490	IIIb/c	Middle/L. Archaic		Mammalia (Small/medium)	Middle phalange	1
13	7	490	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	3
13	8	494	IIIb	M. Archaic		<i>Geomys</i> sp.	Cranium	1
13	8	494	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
13	8	494	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	5
13	8	494	IIIb	M. Archaic		Vertebrata	Indeterminate	8
13	9	518	IIIb	M. Archaic		<i>Chrysemys sensu lato</i>	Suprapygial	1
13	9	518	IIIb	M. Archaic		Colubridae	Dorsal vertebra	2
13	9	518	IIIb	M. Archaic		Cricetidae	Calcaneus	1
13	9	518	IIIb	M. Archaic		<i>Geomys</i> sp.	Humerus	1
13	9	518	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
13	9	518	IIIb	M. Archaic		Mammalia (Large)	Long bone	3
13	9	518	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	7
13	9	518	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	1
13	9	518	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
13	9	518	IIIb	M. Archaic		Mammalia (Small)	Long bone	1
13	9	518	IIIb	M. Archaic		Mammalia (Small)	Metapodial	1
13	9	518	IIIb	M. Archaic		Mammalia (Small)	Permanent tooth	1
13	9	518	IIIb	M. Archaic		Mammalia (Small/medium)	Caudal vertebra	1
13	9	518	IIIb	M. Archaic		Mammalia (Small/medium)	Long bone	1
13	9	518	IIIb	M. Archaic		Serpentes	Dorsal vertebra	1
13	9	518	IIIb	M. Archaic		Small vertebrate, class ind.	Distal phalange	1
13	9	518	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	7
13	9	518	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
13	9	518	IIIb	M. Archaic		Testudinata	Carapace fragment ind.	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
13	9	518	IIIb	M. Archaic		Vertebrata	Indeterminate	49
13	10A	543	IIIb	M. Archaic		Carnivora	Permanent tooth	1
13	10A	543	IIIb	M. Archaic		Colubridae	Dorsal vertebra	1
13	10A	543	IIIb	M. Archaic		<i>Lepus californicus</i>	Astragalus	1
13	10A	543	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
13	10A	543	IIIb	M. Archaic		<i>Lepus californicus</i>	Radius	1
13	10A	543	IIIb	M. Archaic		Mammalia (Large)	Indeterminate	1
13	10A	543	IIIb	M. Archaic		Mammalia (Large)	Long bone	1
13	10A	543	IIIb	M. Archaic		Mammalia (Medium)	Radius	3
13	10A	543	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	10
13	10A	543	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	3
13	10A	543	IIIb	M. Archaic		Mammalia (Small)	Humerus	1
13	10A	543	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	4
13	10A	543	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
13	10A	543	IIIb	M. Archaic		Testudinata	Shell fragment	8
13	10A	543	IIIb	M. Archaic		Vertebrata	Indeterminate	12
13	10B	560	IIIb	M. Archaic	213	Colubridae	Dorsal vertebra	1
13	10B	560	IIIb	M. Archaic	213	<i>Lepus californicus</i>	Permanent tooth	1
13	10B	560	IIIb	M. Archaic	213	Mammalia (Medium)	Proximal phalange	1
13	10B	560	IIIb	M. Archaic	213	Medium/Large Vertebrata	Indeterminate	1
13	10B	560	IIIb	M. Archaic	213	Vertebrata	Indeterminate	2
13	11A	563	IIIb	Early/M. Archaic		Carnivora	Accessory carpal bone	1
13	11A	563	IIIb	Early/M. Archaic		Colubridae	Dorsal vertebra	1
13	11A	563	IIIb	Early/M. Archaic		Leporidae	Scapula	1
13	11A	563	IIIb	Early/M. Archaic		Mammalia (Large)	Indeterminate	2
13	11A	563	IIIb	Early/M. Archaic		Mammalia (Medium)	Proximal phalange	1
13	11A	563	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Cranium	2
13	11A	563	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
13	11A	563	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Long bone	1
13	11A	563	IIIb	Early/M. Archaic		Mammalia (Small)	Calcaneus	1
13	11A	563	IIIb	Early/M. Archaic		Mammalia (Small/medium)	Caudal vertebra	1
13	11A	563	IIIb	Early/M. Archaic		Mammalia (Small/medium)	Long bone	1
13	11A	563	IIIb	Early/M. Archaic		Mammalia (Small/medium)	Vertebra	1
13	11A	563	IIIb	Early/M. Archaic		Medium vertebrate, class ind.	Middle phalange	1
13	11A	563	IIIb	Early/M. Archaic		Medium/Large Vertebrata	Indeterminate	5
13	11A	563	IIIb	Early/M. Archaic		Rodentia (Medium)	Permanent tooth	2
13	11A	563	IIIb	Early/M. Archaic		Serpentes	Dorsal vertebra	1
13	11A	563	IIIb	Early/M. Archaic		<i>Sigmodon hispidus</i>	Mandible	1
13	11A	563	IIIb	Early/M. Archaic		<i>Sigmodon hispidus</i>	Permanent tooth	1
13	11A	563	IIIb	Early/M. Archaic		Small/Medium Vertebrata	Long bone	4
13	11A	563	IIIb	Early/M. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
13	11A	563	IIIb	Early/M. Archaic		Testudinata	Shell fragment	4
13	11A	563	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	61
13	11B	586	IIIb	Early/M. Archaic	213	<i>Lepus californicus</i>	Permanent tooth	1
13	11B	586	IIIb	Early/M. Archaic	213	Small/Medium Vertebrata	Long bone	2
13	11B	586	IIIb	Early/M. Archaic	213	Vertebrata	Indeterminate	9
13	12A	628	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	10
13	12A	628	IIIa/b	E. Archaic		Mammalia (Micro)	Permanent tooth	1
13	12A	628	IIIa/b	E. Archaic		Mammalia (Small)	Calcaneus	1
13	12A	628	IIIa/b	E. Archaic		Mammalia (Small)	Distal phalange	1
13	12A	628	IIIa/b	E. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
13	12A	628	IIIa/b	E. Archaic		Serpentes	Dorsal vertebra	2
13	12A	628	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	4
13	12A	628	IIIa/b	E. Archaic		<i>Sylvilagus</i> sp.	Third tarsal	1
13	12A	628	IIIa/b	E. Archaic		Testudinata	Shell fragment	1
13	12A	628	IIIa/b	E. Archaic		Vertebrata	Indeterminate	32
13	13	655	IIIa/b	E. Archaic		Colubridae	Dorsal vertebra	1
13	13	655	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	4
13	13	655	IIIa/b	E. Archaic		Vertebrata	Indeterminate	11
14	2	147	IIIc/FILL	Unassigned		Vertebrata	Indeterminate	1
14	3	187	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	35
14	3	187	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	2
14	3	187	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Astragalus	1
14	3	187	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
14	3	187	IIIc	L. Archaic/L. Prehist.		Small/Medium Vertebrata	Long bone	7
14	3	187	IIIc	L. Archaic/L. Prehist.		Testudinata	Shell fragment	1
14	3	187	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	64

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
14	3	229	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	4
14	3	229	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Tibia	1
14	4	306	IIIc	L. Archaic/L. Prehist.	202	<i>Antilocapra/Odocoileus</i>	Metapodial	1
14	4	306	IIIc	L. Archaic/L. Prehist.	202	<i>Antilocapra/Odocoileus</i>	Proximal axial sesamoid	1
14	4	306	IIIc	L. Archaic/L. Prehist.	202	Colubridae	Dorsal vertebra	1
14	4	306	IIIc	L. Archaic/L. Prehist.	202	Mammalia (Large)	Long bone	1
14	4	306	IIIc	L. Archaic/L. Prehist.	202	Mammalia (Medium/large)	Indeterminate	26
14	4	306	IIIc	L. Archaic/L. Prehist.	202	Mammalia (Medium/large)	Long bone	10
14	4	306	IIIc	L. Archaic/L. Prehist.	202	Mammalia (Small)	Femur	1
14	4	306	IIIc	L. Archaic/L. Prehist.	202	<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	3
14	4	306	IIIc	L. Archaic/L. Prehist.	202	Serpentes	Dorsal vertebra	1
14	4	306	IIIc	L. Archaic/L. Prehist.	202	Small/Medium Vertebrata	Long bone	7
14	4	306	IIIc	L. Archaic/L. Prehist.	202	Testudinata	Shell fragment	1
14	4	306	IIIc	L. Archaic/L. Prehist.	202	Vertebrata	Indeterminate	84
14	4	347	IIIc	L. Archaic/L. Prehist.	202	<i>Odocoileus</i> sp.	Permanent tooth	6
14	5	368	IIIc	L. Archaic/L. Prehist.		Emydidae	Carapace fragment ind.	1
14	5	368	IIIc	L. Archaic/L. Prehist.		<i>Geomys</i> sp.	Permanent tooth	1
14	5	368	IIIc	L. Archaic/L. Prehist.		Leporidae	Permanent tooth	2
14	5	368	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Vertebra	1
14	5	368	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium)	Patella	1
14	5	368	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	36
14	5	368	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	12
14	5	368	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
14	5	368	IIIc	L. Archaic/L. Prehist.		Mammalia (Small)	Caudal vertebra	1
14	5	368	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Middle phalange	1
14	5	368	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
14	5	368	IIIc	L. Archaic/L. Prehist.		Testudinata	Shell fragment	1
14	5	368	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	171
14	6A	408	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Radial carpal bone	1
14	6A	408	IIIc	L. Archaic		Colubridae	Dorsal vertebra	3
14	6A	408	IIIc	L. Archaic		Emydidae	Shell fragment	8
14	6A	408	IIIc	L. Archaic		<i>Lepus californicus</i>	Metatarsal 3	1
14	6A	408	IIIc	L. Archaic		Mammalia (Medium)	Cranium	1
14	6A	408	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	30
14	6A	408	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	4
14	6A	408	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
14	6A	408	IIIc	L. Archaic		Mammalia (Small)	Cranium	1
14	6A	408	IIIc	L. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
14	6A	408	IIIc	L. Archaic		Mammalia (Small/medium)	Metapodial	1
14	6A	408	IIIc	L. Archaic		Medium/Large Vertebrata	Long bone	1
14	6A	408	IIIc	L. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
14	6A	408	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Middle phalange	1
14	6A	408	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Prox. phalange of paradigit	1
14	6A	408	IIIc	L. Archaic		Serpentes	Dorsal vertebra	1
14	6A	408	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	11
14	6A	408	IIIc	L. Archaic		Small/Medium Vertebrata	Phalange	1
14	6A	408	IIIc	L. Archaic		Small/Medium Vertebrata	Proximal phalange	1
14	6A	408	IIIc	L. Archaic		Testudinata	Carapace fragment ind.	1
14	6A	408	IIIc	L. Archaic		Testudinata	Plastron fragment ind.	1
14	6A	408	IIIc	L. Archaic		Testudinata	Shell fragment	8
14	6A	408	IIIc	L. Archaic		Vertebrata	Indeterminate	203
14	6B	421	IIIc	L. Archaic	207	Mammalia (Large)	Indeterminate	2
14	6B	441	IIIc	L. Archaic	207	Mammalia (Large)	Indeterminate	3
14	6B	441	IIIc	L. Archaic	207	Mammalia (Large)	Long bone	3
14	6B	441	IIIc	L. Archaic	207	Mammalia (Medium/large)	Indeterminate	5
14	6B	441	IIIc	L. Archaic	207	<i>Odocoileus</i> sp.	Radius	1
14	7	488	IIIb/c	L. Archaic		<i>Lepus californicus</i>	Metacarpal 3	1
14	7	488	IIIb/c	L. Archaic		Mammalia (Medium/large)	Indeterminate	8
14	7	488	IIIb/c	L. Archaic		Medium/Large Vertebrata	Long bone	1
14	7	488	IIIb/c	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
14	7	488	IIIb/c	L. Archaic		Small/Medium Vertebrata	Long bone	7
14	7	488	IIIb/c	L. Archaic		Vertebrata	Indeterminate	21
14	8	506	IIIb/c	L. Archaic		Leporidae	Permanent tooth	1
14	8	506	IIIb/c	L. Archaic		Mammalia (Medium)	Patella	1
14	8	506	IIIb/c	L. Archaic		Mammalia (Medium/large)	Indeterminate	4
14	8	506	IIIb/c	L. Archaic		Mammalia (Small)	Caudal vertebra	1
14	8	506	IIIb/c	L. Archaic		Mammalia (Small)	Proximal phalange	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
14	8	506	IIIb/c	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
14	8	506	IIIb/c	L. Archaic		Rodentia (Medium)	Femur	1
14	8	506	IIIb/c	L. Archaic		Serpentes	Dorsal vertebra	1
14	8	506	IIIb/c	L. Archaic		Small vertebrate, class ind.	Vertebra	1
14	8	506	IIIb/c	L. Archaic		Small/Medium Vertebrata	Long bone	3
14	8	506	IIIb/c	L. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
14	8	506	IIIb/c	L. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
14	8	506	IIIb/c	L. Archaic		Vertebrata	Indeterminate	34
14	8	506	IIIb/c	L. Archaic		Viperidae	Dorsal vertebra	1
14	9	512	IIIb	Middle/L. Archaic		cf. <i>Sigmodon hispidus</i>	Calcaneus	1
14	9	512	IIIb	Middle/L. Archaic		Leporidae	Ulna	1
14	9	512	IIIb	Middle/L. Archaic		<i>Lepus californicus</i>	Metatarsal 4	1
14	9	512	IIIb	Middle/L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
14	9	512	IIIb	Middle/L. Archaic		Mammalia (Large)	Long bone	2
14	9	512	IIIb	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	1
14	9	512	IIIb	Middle/L. Archaic		Mammalia (Micro)	Humerus	1
14	9	512	IIIb	Middle/L. Archaic		Medium/Large Vertebrata	Indeterminate	1
14	9	512	IIIb	Middle/L. Archaic		<i>Sigmodon hispidus</i>	Mandible	1
14	9	512	IIIb	Middle/L. Archaic		<i>Sigmodon hispidus</i>	Permanent tooth	3
14	9	512	IIIb	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	7
14	9	512	IIIb	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
14	9	512	IIIb	Middle/L. Archaic		Testudinata	Shell fragment	1
14	9	512	IIIb	Middle/L. Archaic		Vertebrata	Indeterminate	31
14	10	537	IIIb	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused central/fourth tarsal	1
14	10	537	IIIb	Middle/L. Archaic		Carnivora	Permanent tooth	1
14	10	537	IIIb	Middle/L. Archaic		Leporidae	Permanent tooth	1
14	10	537	IIIb	Middle/L. Archaic		Leporidae	Radius	1
14	10	537	IIIb	Middle/L. Archaic		Mammalia (Medium)	Pelvis	1
14	10	537	IIIb	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	5
14	10	537	IIIb	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	5
14	10	537	IIIb	Middle/L. Archaic		Vertebrata	Indeterminate	9
14	11	551	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
14	11	551	IIIb	M. Archaic		Leporidae	Permanent tooth	4
14	11	551	IIIb	M. Archaic		Mammalia (Large)	Indeterminate	1
14	11	551	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	17
14	11	551	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
14	11	551	IIIb	M. Archaic		<i>Neotoma</i> sp.	Humerus	1
14	11	551	IIIb	M. Archaic		Small vertebrate, class ind.	Distal phalange	1
14	11	551	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	11
14	11	551	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	2
14	11	551	IIIb	M. Archaic		Vertebrata	Indeterminate	29
14	12	561	IIIa/b	M. Archaic		Leporidae	Metacarpal 2	1
14	12	561	IIIa/b	M. Archaic		Mammalia (Large)	Indeterminate	1
14	12	561	IIIa/b	M. Archaic		Mammalia (Large)	Long bone	2
14	12	561	IIIa/b	M. Archaic		Mammalia (Medium/large)	Indeterminate	6
14	12	561	IIIa/b	M. Archaic		Mammalia (Medium/large)	Long bone	1
14	12	561	IIIa/b	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
14	12	561	IIIa/b	M. Archaic		Serpentes	Dorsal vertebra	1
14	12	561	IIIa/b	M. Archaic		Small/Medium Vertebrata	Long bone	4
14	12	561	IIIa/b	M. Archaic		Small/Medium Vertebrata	Proximal phalange	1
14	12	561	IIIa/b	M. Archaic		<i>Sylvilagus</i> sp.	Tibia	1
14	12	561	IIIa/b	M. Archaic		Testudinata	Shell fragment	1
14	12	561	IIIa/b	M. Archaic		Vertebrata	Indeterminate	44
14	13	574	IIIa/b	M. Archaic		<i>Antilocapra/Odocoileus</i>	Phalange	1
14	13	574	IIIa/b	M. Archaic		Leporidae	Permanent tooth	1
14	13	574	IIIa/b	M. Archaic		Mammalia (Medium/large)	Indeterminate	4
14	13	574	IIIa/b	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
14	13	574	IIIa/b	M. Archaic		Mammalia (Micro)	Tibia	1
14	13	574	IIIa/b	M. Archaic		Serpentes	Dorsal vertebra	2
14	13	574	IIIa/b	M. Archaic		Small/Medium Vertebrata	Long bone	5
14	13	574	IIIa/b	M. Archaic		Testudinata	Carapace fragment ind.	1
14	13	574	IIIa/b	M. Archaic		Vertebrata	Indeterminate	77
14	14	590	IIIa	E. Archaic		Medium/Large Vertebrata	Long bone	1
14	14	590	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	5
14	14	590	IIIa	E. Archaic		Small/Medium Vertebrata	Proximal phalange	1
14	14	590	IIIa	E. Archaic		Vertebrata	Indeterminate	11
14	15	608	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	8

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
14	15	608	IIIa	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
14	15	608	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	9
14	15	608	IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Metacarpal 3	1
14	15	608	IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Metapodial	1
14	15	608	IIIa	E. Archaic		Testudinata	Shell fragment	1
14	15	608	IIIa	E. Archaic		Vertebrata	Indeterminate	42
14	16	635	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
14	16	635	IIIa	E. Archaic		Mammalia (Small)	Calcaneus	1
14	16	635	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	4
14	16	635	IIIa	E. Archaic		Testudinata	Shell fragment	2
14	16	635	IIIa	E. Archaic		Vertebrata	Indeterminate	2
15	3	217	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	1
15	3	217	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Long bone	2
15	3	217	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	38
15	3	217	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
15	3	217	IIIc	L. Archaic/L. Prehist.		Medium/Large Vertebrata	Indeterminate	1
15	3	217	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Antler	3
15	3	217	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Radius	1
15	3	217	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	114
15	4A	235	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Humerus	1
15	4A	235	IIIc	L. Archaic		Cricetidae (Medium)	Tibia	1
15	4A	235	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
15	4A	235	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	33
15	4A	235	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	9
15	4A	235	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
15	4A	235	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Middle phalange	1
15	4A	235	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
15	4A	235	IIIc	L. Archaic		Testudinata	Neural	1
15	4A	235	IIIc	L. Archaic		Vertebrata	Indeterminate	140
15	4B	385	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
15	4B	385	IIIc	L. Archaic		Colubridae	Dorsal vertebra	3
15	4B	385	IIIc	L. Archaic		<i>Geomys</i> sp.	Ulna	1
15	4B	385	IIIc	L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
15	4B	385	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	50
15	4B	385	IIIc	L. Archaic		Mammalia (Medium/large)	Rib	1
15	4B	385	IIIc	L. Archaic		Mammalia (Small)	Permanent tooth	1
15	4B	385	IIIc	L. Archaic		Mammalia (Small)	Proximal phalange	1
15	4B	385	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Antler	1
15	4B	385	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Fused 3rd & 4th metatarsal	1
15	4B	385	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
15	4B	385	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	7
15	4B	385	IIIc	L. Archaic		Testudinata	Pleural	1
15	4B	385	IIIc	L. Archaic		Vertebrata	Indeterminate	261
15	5A	387	IIIc	L. Archaic		Colubridae	Dorsal vertebra	1
15	5A	387	IIIc	L. Archaic		Cricetidae (Medium)	Femur	1
15	5A	387	IIIc	L. Archaic		Cricetidae (Medium)	Tibia	1
15	5A	387	IIIc	L. Archaic		Leporidae	Metacarpal 2	1
15	5A	387	IIIc	L. Archaic		Mammalia (Large)	Long bone	3
15	5A	387	IIIc	L. Archaic		Mammalia (Medium/large)	Epiphysis	1
15	5A	387	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	28
15	5A	387	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	5
15	5A	387	IIIc	L. Archaic		Mammalia (Medium/large)	Permanent tooth	1
15	5A	387	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	4
15	5A	387	IIIc	L. Archaic		Medium/Large Vertebrata	Long bone	1
15	5A	387	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
15	5A	387	IIIc	L. Archaic		Osteichthyes (Small)	Vertebra	1
15	5A	387	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	6
15	5A	387	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
15	5A	387	IIIc	L. Archaic		Vertebrata	Indeterminate	224
15	6A	129	IIIc	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Distal phalange	1
15	6A	129	IIIc	Middle/L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	2
15	6A	129	IIIc	Middle/L. Archaic		Colubridae	Dorsal vertebra	2
15	6A	129	IIIc	Middle/L. Archaic		Leporidae	Permanent tooth	3
15	6A	129	IIIc	Middle/L. Archaic		Leporidae	Radius	1
15	6A	129	IIIc	Middle/L. Archaic		Mammalia (Large)	Long bone	6
15	6A	129	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	37
15	6A	129	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	8

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
15	6A	129	IIIc	Middle/L. Archaic		Mammalia (Small)	Femur	1
15	6A	129	IIIc	Middle/L. Archaic		Mammalia (Small)	Mandible	1
15	6A	129	IIIc	Middle/L. Archaic		Mammalia (Small)	Permanent tooth	1
15	6A	129	IIIc	Middle/L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
15	6A	129	IIIc	Middle/L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
15	6A	129	IIIc	Middle/L. Archaic		Rodentia (Medium)	Permanent tooth	2
15	6A	129	IIIc	Middle/L. Archaic		Small vertebrate, class ind.	Proximal phalange	1
15	6A	129	IIIc	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Femur	1
15	6A	129	IIIc	Middle/L. Archaic		Testudinata	Pleural	1
15	6A	129	IIIc	Middle/L. Archaic		Vertebrata	Indeterminate	335
15	6A	460	IIIc	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	1
15	6A	461	IIIc	Middle/L. Archaic		Mammalia (Large)	Indeterminate	1
15	6B	475	IIIc	Middle/L. Archaic	206	Mammalia (Medium/large)	Indeterminate	1
15	6B	475	IIIc	Middle/L. Archaic	206	Medium/Large Vertebrata	Long bone	1
15	7	486	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Phalange	1
15	7	486	IIIb/c	Middle/L. Archaic		Aves (Medium)	Tarsometatarsus	1
15	7	486	IIIb/c	Middle/L. Archaic		Leporidae	Permanent tooth	1
15	7	486	IIIb/c	Middle/L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
15	7	486	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Long bone	2
15	7	486	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	20
15	7	486	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	1
15	7	486	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Permanent tooth	1
15	7	486	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
15	7	486	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Tibia	1
15	7	486	IIIb/c	Middle/L. Archaic		Mammalia (Small/medium)	Femur	1
15	7	486	IIIb/c	Middle/L. Archaic		<i>Odocoileus</i> sp.	Antler	1
15	7	486	IIIb/c	Middle/L. Archaic		Rodentia (Medium)	Permanent tooth	1
15	7	486	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	25
15	7	486	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Phalange	3
15	7	486	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Proximal phalange	1
15	7	486	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Vertebra	1
15	7	486	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Central tarsal bone	1
15	7	486	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
15	7	486	IIIb/c	Middle/L. Archaic		Testudinata	Pleural	1
15	7	486	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	146
15	8	507	IIIb/c	M. Archaic		<i>Antilocapra americana</i>	Permanent tooth	1
15	8	507	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	2nd or 4th metacarpal	1
15	8	507	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
15	8	507	IIIb/c	M. Archaic		Artiodactyla	Tooth, perm./decid. ind.	2
15	8	507	IIIb/c	M. Archaic		cf. <i>Lepus californicus</i>	Patella	2
15	8	507	IIIb/c	M. Archaic		<i>Lepus californicus</i>	Ulna	1
15	8	507	IIIb/c	M. Archaic		Mammalia (Large)	Long bone	2
15	8	507	IIIb/c	M. Archaic		Mammalia (Large)	Rib	2
15	8	507	IIIb/c	M. Archaic		Mammalia (Medium)	Metapodial	1
15	8	507	IIIb/c	M. Archaic		Mammalia (Medium/large)	Alveolar ridge fragment	1
15	8	507	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	15
15	8	507	IIIb/c	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
15	8	507	IIIb/c	M. Archaic		Mammalia (Micro)	Humerus	1
15	8	507	IIIb/c	M. Archaic		Medium/Large Vertebrata	Indeterminate	1
15	8	507	IIIb/c	M. Archaic		<i>Odocoileus</i> sp.	Astragalus	1
15	8	507	IIIb/c	M. Archaic		<i>Odocoileus</i> sp.	Calcaneus	1
15	8	507	IIIb/c	M. Archaic		<i>Odocoileus</i> sp.	Mandible	1
15	8	507	IIIb/c	M. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	2
15	8	507	IIIb/c	M. Archaic		Small/Medium Vertebrata	Middle phalange	1
15	8	507	IIIb/c	M. Archaic		Small/Medium Vertebrata	Phalange	1
15	8	507	IIIb/c	M. Archaic		Vertebrata	Indeterminate	76
15	9	526	IIIb	M. Archaic		Cricetidae (Medium)	Astragalus	1
15	9	526	IIIb	M. Archaic		Cricetidae (Medium)	Humerus	1
15	9	526	IIIb	M. Archaic		Leporidae	Metatarsal 4	1
15	9	526	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	4
15	9	526	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	7
15	9	526	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	4
15	9	526	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
15	9	526	IIIb	M. Archaic		Mammalia (Small)	Permanent tooth	1
15	9	526	IIIb	M. Archaic		Mammalia (Small)	Phalange	1
15	9	526	IIIb	M. Archaic		Mammalia (Small)	Proximal phalange	1
15	9	526	IIIb	M. Archaic		Mammalia (Small/medium)	Proximal phalange	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
15	9	526	IIIb	M. Archaic		Rodentia (Medium)	Permanent tooth	1
15	9	526	IIIb	M. Archaic		Serpentes	Dorsal vertebra	1
15	9	526	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	9
15	9	526	IIIb	M. Archaic		Vertebrata	Indeterminate	23
15	10	542	IIIb	M. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
15	10	542	IIIb	M. Archaic		Emydidae	Peripheral	1
15	10	542	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
15	10	542	IIIb	M. Archaic		Leporidae	Permanent tooth	1
15	10	542	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	2
15	10	542	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	8
15	10	542	IIIb	M. Archaic		Mammalia (Small)	Distal phalange	1
15	10	542	IIIb	M. Archaic		Mammalia (Small)	Metapodial	1
15	10	542	IIIb	M. Archaic		Medium/Large Vertebrata	Indeterminate	2
15	10	542	IIIb	M. Archaic		Serpentes	Dorsal vertebra	1
15	10	542	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	2
15	10	542	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
15	10	542	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Radius	1
15	10	542	IIIb	M. Archaic		Vertebrata	Indeterminate	5
15	11	549	IIIb	Early/M. Archaic		Leporidae	Permanent tooth	1
15	11	549	IIIb	Early/M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
15	11	549	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
15	11	549	IIIb	Early/M. Archaic		Mammalia (Small)	Metapodial	1
15	11	549	IIIb	Early/M. Archaic		Mammalia (Small/medium)	Epiphysis	1
15	11	549	IIIb	Early/M. Archaic		Medium/Large Vertebrata	Indeterminate	3
15	11	549	IIIb	Early/M. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
15	11	549	IIIb	Early/M. Archaic		Serpentes	Dorsal vertebra	1
15	11	549	IIIb	Early/M. Archaic		Small/Medium Vertebrata	Long bone	3
15	11	549	IIIb	Early/M. Archaic		<i>Sylvilagus</i> sp.	Cranium	1
15	11	549	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	48
15	12	568	IIIa/b	Early/M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
15	12	568	IIIa/b	Early/M. Archaic		Leporidae	Permanent tooth	1
15	12	568	IIIa/b	Early/M. Archaic		<i>Lepus californicus</i>	Astragalus	1
15	12	568	IIIa/b	Early/M. Archaic		Mammalia (Large)	Indeterminate	1
15	12	568	IIIa/b	Early/M. Archaic		Mammalia (Medium)	Metapodial	1
15	12	568	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	3
15	12	568	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
15	12	568	IIIa/b	Early/M. Archaic		Mammalia (Small/medium)	Tibia	1
15	12	568	IIIa/b	Early/M. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
15	12	568	IIIa/b	Early/M. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
15	12	568	IIIa/b	Early/M. Archaic		Rodentia (Medium)	Tibia	1
15	12	568	IIIa/b	Early/M. Archaic		Small/Medium Vertebrata	Long bone	5
15	12	568	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	43
15	13	596	IIIa/b	E. Archaic		Mammalia (Large)	Long bone	2
15	13	596	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	14
15	13	596	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	2
15	13	596	IIIa/b	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
15	13	596	IIIa/b	E. Archaic		Small vertebrate, class ind.	Distal phalange	1
15	13	596	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	5
15	13	596	IIIa/b	E. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	2
15	13	596	IIIa/b	E. Archaic		Testudinata	Shell fragment	2
15	13	596	IIIa/b	E. Archaic		Vertebrata	Indeterminate	26
15	14	640	IIIa/b	E. Archaic		Leporidae	Permanent tooth	2
15	14	640	IIIa/b	E. Archaic		Mammalia (Large)	Indeterminate	1
15	14	640	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	13
15	14	640	IIIa/b	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	5
15	14	640	IIIa/b	E. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
15	14	640	IIIa/b	E. Archaic		Serpentes	Dorsal vertebra	1
15	14	640	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	4
15	14	640	IIIa/b	E. Archaic		Vertebrata	Indeterminate	21
16	3	168	IIIc	L. Archaic/L. Prehist.		Colubridae	Dorsal vertebra	1
16	3	168	IIIc	L. Archaic/L. Prehist.		Emydidae	Peripheral	1
16	3	168	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Long bone	8
16	3	168	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	61
16	3	168	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	2
16	3	168	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	4
16	3	168	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Antler	1
16	3	168	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Tibia	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
16	3	168	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	5
16	3	168	IIIc	L. Archaic/L. Prehist.		Testudinata	Shell fragment	3
16	3	168	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	146
16	4	120	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Astragalus	1
16	4	120	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
16	4	120	IIIc	L. Archaic/L. Prehist.		Colubridae	Dorsal vertebra	2
16	4	120	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	1
16	4	120	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Tooth, perm./decid. ind.	1
16	4	120	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	225
16	4	120	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
16	4	120	IIIc	L. Archaic/L. Prehist.		<i>Neotoma</i> sp.	Permanent tooth	1
16	4	120	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
16	4	120	IIIc	L. Archaic/L. Prehist.		Testudinata	Shell fragment	3
16	4	120	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	225
16	4	120	IIIc	L. Archaic/L. Prehist.		Viperidae	Dorsal vertebra	1
16	5	391	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
16	5	391	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
16	5	391	IIIc	L. Archaic		cf. <i>Odocoileus</i> sp.	Cranium	1
16	5	391	IIIc	L. Archaic		Kinosternidae	Peripheral	1
16	5	391	IIIc	L. Archaic		Leporidae	Permanent tooth	1
16	5	391	IIIc	L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
16	5	391	IIIc	L. Archaic		Mammalia (Large)	Long bone	8
16	5	391	IIIc	L. Archaic		Mammalia (Medium)	Proximal phalange	1
16	5	391	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	38
16	5	391	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	6
16	5	391	IIIc	L. Archaic		Mammalia (Medium/large)	Patella	1
16	5	391	IIIc	L. Archaic		Mammalia (Medium/large)	Permanent tooth	1
16	5	391	IIIc	L. Archaic		Mammalia (Medium/large)	Rib	1
16	5	391	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	14
16	5	391	IIIc	L. Archaic		Mammalia (Small)	Femur	1
16	5	391	IIIc	L. Archaic		Mammalia (Small)	Tibia	1
16	5	391	IIIc	L. Archaic		Mammalia (Small/medium)	Metapodial	1
16	5	391	IIIc	L. Archaic		Mammalia (Small/medium)	Proximal phalange	2
16	5	391	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Middle phalange	1
16	5	391	IIIc	L. Archaic		Osteichthyes (Small)	Vertebra	2
16	5	391	IIIc	L. Archaic		Rodentia (Medium)	Permanent tooth	1
16	5	391	IIIc	L. Archaic		Serpentes	Dorsal vertebra	3
16	5	391	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	9
16	5	391	IIIc	L. Archaic		Testudinata	Pleural	1
16	5	391	IIIc	L. Archaic		Testudinata	Shell fragment	2
16	5	391	IIIc	L. Archaic		Vertebrata	Indeterminate	487
16	6A	448	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Mandible	1
16	6A	448	IIIc	L. Archaic		Mammalia (Large)	Cranium	2
16	6A	448	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	2
16	6A	448	IIIc	L. Archaic		Mammalia (Large)	Long bone	4
16	6A	448	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	15
16	6A	448	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
16	6A	448	IIIc	L. Archaic		Mammalia (Micro)	Metapodial	1
16	6A	448	IIIc	L. Archaic		Mammalia (Small)	Cranium	1
16	6A	448	IIIc	L. Archaic		Medium/Large Vertebrata	Long bone	1
16	6A	448	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
16	6A	448	IIIc	L. Archaic		Rodentia (Small)	Femur	1
16	6A	448	IIIc	L. Archaic		Testudinata	Peripheral	1
16	6A	448	IIIc	L. Archaic		Vertebrata	Indeterminate	10
16	6A	448	IIIc	L. Archaic		Viperidae	Dorsal vertebra	1
16	6A	455	IIIc	L. Archaic		Aves (Large)	Distal phalange	1
16	6A	455	IIIc	L. Archaic		cf. <i>Odocoileus</i> sp.	Permanent tooth	1
16	6A	455	IIIc	L. Archaic		Colubridae	Dorsal vertebra	2
16	6A	455	IIIc	L. Archaic		Leporidae	Permanent tooth	1
16	6A	455	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	12
16	6A	455	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	10
16	6A	455	IIIc	L. Archaic		Mammalia (Medium/large)	Rib	1
16	6A	455	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	4
16	6A	455	IIIc	L. Archaic		Mammalia (Small)	Metapodial	1
16	6A	455	IIIc	L. Archaic		Mammalia (Small)	Radius	1
16	6A	455	IIIc	L. Archaic		Rodentia (Medium)	Permanent tooth	1
16	6A	455	IIIc	L. Archaic		Serpentes	Dorsal vertebra	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
16	6A	455	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	12
16	6A	455	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Mandible	1
16	6A	455	IIIc	L. Archaic		Testudinata	Plastron fragment ind.	1
16	6A	455	IIIc	L. Archaic		Vertebrata	Indeterminate	117
16	6A	455	IIIc	L. Archaic		Viperidae	Dorsal vertebra	1
16	6B	452	IIIc	L. Archaic	206	<i>Odocoileus</i> sp.	Mandible	1
16	6B	452	IIIc	L. Archaic	206	<i>Odocoileus</i> sp.	Permanent tooth	2
16	7A	480	IIIb/c	L. Archaic		<i>Antilocapra/Odocoileus</i>	Phalange	1
16	7A	480	IIIb/c	L. Archaic		<i>Canis</i> sp.	Permanent tooth	1
16	7A	480	IIIb/c	L. Archaic		cf. <i>Canis</i> sp.	Cranium	2
16	7A	480	IIIb/c	L. Archaic		Cricetidae (Small)	Mandible	1
16	7A	480	IIIb/c	L. Archaic		Cricetidae (Small)	Permanent tooth	3
16	7A	480	IIIb/c	L. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
16	7A	480	IIIb/c	L. Archaic		Leporidae	Permanent tooth	3
16	7A	480	IIIb/c	L. Archaic		Mammalia (Medium/large)	Indeterminate	22
16	7A	480	IIIb/c	L. Archaic		Mammalia (Medium/large)	Long bone	12
16	7A	480	IIIb/c	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
16	7A	480	IIIb/c	L. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
16	7A	480	IIIb/c	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
16	7A	480	IIIb/c	L. Archaic		Serpentes	Dorsal vertebra	2
16	7A	480	IIIb/c	L. Archaic		Small/Medium Vertebrata	Long bone	9
16	7A	480	IIIb/c	L. Archaic		Small/Medium Vertebrata	Phalange	1
16	7A	480	IIIb/c	L. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	2
16	7A	480	IIIb/c	L. Archaic		<i>Sylvilagus</i> sp.	Metacarpal 4	1
16	7A	480	IIIb/c	L. Archaic		Vertebrata	Indeterminate	90
16	8	511	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
16	8	511	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	5
16	8	511	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	1
16	8	511	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
16	8	511	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Metapodial	1
16	8	511	IIIb/c	Middle/L. Archaic		Medium/Large Vertebrata	Indeterminate	4
16	8	511	IIIb/c	Middle/L. Archaic		<i>Sigmodon hispidus</i>	Mandible	1
16	8	511	IIIb/c	Middle/L. Archaic		<i>Sigmodon hispidus</i>	Permanent tooth	4
16	8	511	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	7
16	8	511	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	37
16	9	530	IIIb/c	M. Archaic		Colubridae	Dorsal vertebra	1
16	9	530	IIIb/c	M. Archaic		Leporidae	Permanent tooth	1
16	9	530	IIIb/c	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	3
16	9	530	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	6
16	9	530	IIIb/c	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
16	9	530	IIIb/c	M. Archaic		Mammalia (Small)	Calcaneus	1
16	9	530	IIIb/c	M. Archaic		Mammalia (Small)	Ulna	1
16	9	530	IIIb/c	M. Archaic		Small/Medium Vertebrata	Long bone	9
16	9	530	IIIb/c	M. Archaic		Vertebrata	Indeterminate	34
16	10A	573	IIIb	M. Archaic		Mammalia (Large)	Long bone	1
16	10A	573	IIIb	M. Archaic		Mammalia (Small)	Femur	2
16	10A	573	IIIb	M. Archaic		Rodentia (Medium)	Astragalus	2
16	10B	609	IIIb	M. Archaic	214	<i>Geomys</i> sp.	Permanent tooth	1
16	10B	609	IIIb	M. Archaic	214	Leporidae	Permanent tooth	2
16	10B	609	IIIb	M. Archaic	214	<i>Lepus californicus</i>	Metatarsal 2	1
16	10B	609	IIIb	M. Archaic	214	<i>Lepus californicus</i>	Metatarsal 4	1
16	10B	609	IIIb	M. Archaic	214	<i>Lepus californicus</i>	Permanent tooth	1
16	10B	609	IIIb	M. Archaic	214	Mammalia (Medium)	Calcaneus	1
16	10B	609	IIIb	M. Archaic	214	Mammalia (Medium)	Middle phalange	1
16	10B	609	IIIb	M. Archaic	214	Mammalia (Medium/large)	Indeterminate	1
16	10B	609	IIIb	M. Archaic	214	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
16	10B	609	IIIb	M. Archaic	214	Mammalia (Small)	Femur	1
16	10B	609	IIIb	M. Archaic	214	Mammalia (Small)	Proximal phalange	1
16	10B	609	IIIb	M. Archaic	214	Mammalia (Small/medium)	Cranium	1
16	10B	609	IIIb	M. Archaic	214	<i>Neotoma</i> sp.	Permanent tooth	4
16	10B	609	IIIb	M. Archaic	214	Serpentes	Vertebra	2
16	10B	609	IIIb	M. Archaic	214	Small/Medium Vertebrata	Long bone	3
16	10B	609	IIIb	M. Archaic	214	<i>Sylvilagus</i> sp.	Humerus	1
16	10B	609	IIIb	M. Archaic	214	Testudinata	Plastron fragment ind.	1
16	10B	609	IIIb	M. Archaic	214	Testudinata	Shell fragment	2
16	10B	609	IIIb	M. Archaic	214	Vertebrata	Indeterminate	51
16	11A	580	IIIb	M. Archaic		Leporidae	Permanent tooth	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
16	11A	580	IIIb	M. Archaic		Mammalia (Large)	Long bone	1
16	11A	580	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	6
16	11A	580	IIIb	M. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
16	11A	580	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	8
16	11A	580	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Metapodial	1
16	11A	580	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	1
16	11A	580	IIIb	M. Archaic		Vertebrata	Indeterminate	61
16	11B	581	IIIb	M. Archaic	214?	Mammalia (Medium)	Metapodial	1
16	11B	581	IIIb	M. Archaic	214?	Serpentes	Dorsal vertebra	1
16	11B	581	IIIb	M. Archaic	214?	Small/Medium Vertebrata	Long bone	2
16	11B	581	IIIb	M. Archaic	214?	Vertebrata	Indeterminate	14
16	12A	651	IIIb	Early/M. Archaic		Colubridae	Dorsal vertebra	3
16	12A	651	IIIb	Early/M. Archaic		Leporidae	Permanent tooth	1
16	12A	651	IIIb	Early/M. Archaic		Mammalia (Large)	Indeterminate	1
16	12A	651	IIIb	Early/M. Archaic		Mammalia (Large)	Long bone	1
16	12A	651	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	16
16	12A	651	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
16	12A	651	IIIb	Early/M. Archaic		Mammalia (Small)	Metapodial	2
16	12A	651	IIIb	Early/M. Archaic		<i>Neotoma</i> sp.	Permanent tooth	2
16	12A	651	IIIb	Early/M. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
16	12A	651	IIIb	Early/M. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	5
16	12A	651	IIIb	Early/M. Archaic		Small vertebrate, class ind.	Middle phalange	1
16	12A	651	IIIb	Early/M. Archaic		Small/Medium Vertebrata	Long bone	9
16	12A	651	IIIb	Early/M. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
16	12A	651	IIIb	Early/M. Archaic		<i>Sylvilagus</i> sp.	Ulna	1
16	12A	651	IIIb	Early/M. Archaic		Testudinata	Shell fragment	2
16	12A	651	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	102
16	13	685	IIIa/b	Early/M. Archaic		Anura	Humerus	1
16	13	685	IIIa/b	Early/M. Archaic		Anura	Indeterminate	5
16	13	685	IIIa/b	Early/M. Archaic		Anura	Tibiofibula	1
16	13	685	IIIa/b	Early/M. Archaic		cf. Leporidae	Distal phalange	1
16	13	685	IIIa/b	Early/M. Archaic		Colubridae	Dorsal vertebra	1
16	13	685	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	11
16	13	685	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
16	13	685	IIIa/b	Early/M. Archaic		Mammalia (Micro)	Permanent tooth	4
16	13	685	IIIa/b	Early/M. Archaic		Mammalia (Small)	Metapodial	1
16	13	685	IIIa/b	Early/M. Archaic		Medium/Large Vertebrata	Indeterminate	2
16	13	685	IIIa/b	Early/M. Archaic		Small/Medium Vertebrata	Long bone	3
16	13	685	IIIa/b	Early/M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
16	13	685	IIIa/b	Early/M. Archaic		Testudinata	Shell fragment	1
16	13	685	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	90
17	0	436	?	Unassigned		Vertebrata	Indeterminate	2
17	1	110	FILL	Unassigned		Mammalia (Large)	Long bone	2
17	3	194	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Proximal abaxial sesamoid	1
17	3	194	IIIc	L. Archaic/L. Prehist.		Artiodactyla	Tooth, perm./decid. ind.	1
17	3	194	IIIc	L. Archaic/L. Prehist.		Colubridae	Dorsal vertebra	1
17	3	194	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	6
17	3	194	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	26
17	3	194	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	1
17	3	194	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
17	3	194	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	94
17	4	119	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Indeterminate	2
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Metapodial	1
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Phalange	2
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Antilocapra/Odocoileus</i>	Tibia	1
17	4	258	IIIc	L. Archaic/L. Prehist.		Artiodactyla	Tooth, perm./decid. ind.	1
17	4	258	IIIc	L. Archaic/L. Prehist.		cf. <i>Odocoileus</i> sp.	Mandible	1
17	4	258	IIIc	L. Archaic/L. Prehist.		Colubridae	Dorsal vertebra	5
17	4	258	IIIc	L. Archaic/L. Prehist.		Leporidae	Permanent tooth	1
17	4	258	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Long bone	9
17	4	258	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	96
17	4	258	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	7
17	4	258	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Rib	4
17	4	258	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	10
17	4	258	IIIc	L. Archaic/L. Prehist.		Mammalia (Small)	Alveolar ridge fragment	1
17	4	258	IIIc	L. Archaic/L. Prehist.		Mammalia (Small)	Cranium	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
17	4	258	IIIc	L. Archaic/L. Prehist.		Mammalia (Small/medium)	Scapula	1
17	4	258	IIIc	L. Archaic/L. Prehist.		Medium vertebrate, class ind.	Long bone	1
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Antler	1
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Distal fibula	1
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Permanent tooth	2
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	5
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Ulna	1
17	4	258	IIIc	L. Archaic/L. Prehist.		Serpentes	Dorsal vertebra	1
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Sigmodon hispidus</i>	Mandible	1
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Sigmodon hispidus</i>	Permanent tooth	2
17	4	258	IIIc	L. Archaic/L. Prehist.		Small/Medium Vertebrata	Long bone	10
17	4	258	IIIc	L. Archaic/L. Prehist.		<i>Sylvilagus</i> sp.	Metatarsal 3	1
17	4	258	IIIc	L. Archaic/L. Prehist.		Testudinata	Neural	2
17	4	258	IIIc	L. Archaic/L. Prehist.		Testudinata	Shell fragment	1
17	4	258	IIIc	L. Archaic/L. Prehist.		Vertebrata	Indeterminate	380
17	4	264	IIIc	L. Archaic/L. Prehist.		<i>Odocoileus</i> sp.	Proximal phalange	1
17	4	292	IIIc	L. Archaic/L. Prehist.		Mammalia (Large)	Long bone	1
17	4	309	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	1
17	4	309	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Long bone	1
17	4	310	IIIc	L. Archaic/L. Prehist.		Mammalia (Medium/large)	Indeterminate	1
17	5	344	IIIc	L. Archaic		Antilocapra/Odocoileus	Phalange	1
17	5	344	IIIc	L. Archaic		Emydidae	Carapace fragment ind.	1
17	5	344	IIIc	L. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
17	5	344	IIIc	L. Archaic		Leporidae	Permanent tooth	1
17	5	344	IIIc	L. Archaic		Leporidae	Tooth, perm./decid. ind.	1
17	5	344	IIIc	L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
17	5	344	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
17	5	344	IIIc	L. Archaic		Mammalia (Medium)	Proximal phalange	1
17	5	344	IIIc	L. Archaic		Mammalia (Medium)	Radius	1
17	5	344	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	32
17	5	344	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	19
17	5	344	IIIc	L. Archaic		Mammalia (Medium/large)	Rib	1
17	5	344	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	5
17	5	344	IIIc	L. Archaic		Mammalia (Small)	Alveolar ridge fragment	1
17	5	344	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
17	5	344	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	7
17	5	344	IIIc	L. Archaic		Vertebrata	Indeterminate	150
17	6	390	IIIc	L. Archaic		<i>Antilocapra americana</i>	Permanent tooth	1
17	6	390	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Intermediate carpal bone	1
17	6	390	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	4
17	6	390	IIIc	L. Archaic		Carnivora	Permanent tooth	1
17	6	390	IIIc	L. Archaic		Emydidae	Neural	1
17	6	390	IIIc	L. Archaic		Emydidae	Periphereal	1
17	6	390	IIIc	L. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
17	6	390	IIIc	L. Archaic		<i>Lepus californicus</i>	Astragalus	1
17	6	390	IIIc	L. Archaic		<i>Lepus californicus</i>	Calcaneus	1
17	6	390	IIIc	L. Archaic		Mammalia (Large)	Alveolar ridge fragment	2
17	6	390	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
17	6	390	IIIc	L. Archaic		Mammalia (Large)	Long bone	8
17	6	390	IIIc	L. Archaic		Mammalia (Medium)	Proximal phalange	1
17	6	390	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	29
17	6	390	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	12
17	6	390	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
17	6	390	IIIc	L. Archaic		Mammalia (Medium/large)	Vertebra	1
17	6	390	IIIc	L. Archaic		Mammalia (Small/medium)	Middle phalange	1
17	6	390	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	2
17	6	390	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
17	6	390	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	8
17	6	390	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
17	6	390	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
17	6	390	IIIc	L. Archaic		Testudinata	Shell fragment	1
17	6	390	IIIc	L. Archaic		Vertebrata	Indeterminate	116
17	6	437	IIIc	L. Archaic		Mammalia (Very large)	Long bone	1
17	7A	454	IIIb/c	L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
17	7A	454	IIIb/c	L. Archaic		<i>Antilocapra/Odocoileus</i>	Metapodial	1
17	7A	454	IIIb/c	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	3
17	7A	454	IIIb/c	L. Archaic		<i>Canis</i> sp.	Permanent tooth	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
17	7A	454	IIIb/c	L. Archaic		Mammalia (Large)	Indeterminate	3
17	7A	454	IIIb/c	L. Archaic		Mammalia (Large)	Long bone	6
17	7A	454	IIIb/c	L. Archaic		Mammalia (Large)	Tooth, perm./decid. ind.	1
17	7A	454	IIIb/c	L. Archaic		Mammalia (Medium/large)	Indeterminate	28
17	7A	454	IIIb/c	L. Archaic		Mammalia (Medium/large)	Long bone	6
17	7A	454	IIIb/c	L. Archaic		Mammalia (Medium/large)	Permanent tooth	1
17	7A	454	IIIb/c	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
17	7A	454	IIIb/c	L. Archaic		Mammalia (Medium/large)	Vertebra	1
17	7A	454	IIIb/c	L. Archaic		<i>Odocoileus</i> sp.	Proximal phalange	1
17	7A	454	IIIb/c	L. Archaic		Small/Medium Vertebrata	Long bone	10
17	7A	454	IIIb/c	L. Archaic		Testudinata	Shell fragment	1
17	7A	454	IIIb/c	L. Archaic		Vertebrata	Indeterminate	95
17	8A	462	IIIb/c	Middle/L. Archaic		<i>Antilocapra americana</i>	Tooth, perm./decid. ind.	2
17	8A	462	IIIb/c	Middle/L. Archaic		Colubridae	Dorsal vertebra	1
17	8A	462	IIIb/c	Middle/L. Archaic		Leporidae	Permanent tooth	1
17	8A	462	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Indeterminate	1
17	8A	462	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Long bone	2
17	8A	462	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Rib	1
17	8A	462	IIIb/c	Middle/L. Archaic		Mammalia (Medium)	Patella	1
17	8A	462	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	10
17	8A	462	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
17	8A	462	IIIb/c	Middle/L. Archaic		Mammalia (Small/medium)	Phalange	1
17	8A	462	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	3
17	8A	462	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Metacarpal 3	1
17	8A	462	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 4	1
17	8A	462	IIIb/c	Middle/L. Archaic		Testudinata	Shell fragment	1
17	8A	462	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	92
17	9	544	IIIb	M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
17	9	544	IIIb	M. Archaic		Anura	Pelvis	1
17	9	544	IIIb	M. Archaic		Colubridae	Dorsal vertebra	1
17	9	544	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
17	9	544	IIIb	M. Archaic		Leporidae	Permanent tooth	1
17	9	544	IIIb	M. Archaic		<i>Lepus californicus</i>	Astragalus	1
17	9	544	IIIb	M. Archaic		<i>Lepus californicus</i>	Radius	1
17	9	544	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	4
17	9	544	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	1
17	9	544	IIIb	M. Archaic		Mammalia (Micro)	Permanent tooth	1
17	9	544	IIIb	M. Archaic		Medium/Large Vertebrata	Indeterminate	1
17	9	544	IIIb	M. Archaic		Rodentia (Small)	Tibia	1
17	9	544	IIIb	M. Archaic		Serpentes	Dorsal vertebra	1
17	9	544	IIIb	M. Archaic		Small vertebrate, class ind.	Distal phalange	1
17	9	544	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	17
17	9	544	IIIb	M. Archaic		Vertebrata	Indeterminate	34
17	9	544	IIIb	M. Archaic		Viperidae	Dorsal vertebra	1
17	10	595	IIIb	M. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal axial sesamoid	1
17	10	595	IIIb	M. Archaic		Colubridae	Dorsal vertebra	1
17	10	595	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
17	10	595	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
17	10	595	IIIb	M. Archaic		Mammalia (Small)	Phalange	1
17	10	595	IIIb	M. Archaic		Medium/Large Vertebrata	Indeterminate	1
17	10	595	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	6
17	10	595	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
17	10	595	IIIb	M. Archaic		Vertebrata	Indeterminate	32
17	11	652	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
17	11	652	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
17	11	652	IIIb	M. Archaic		Mammalia (Micro)	Tooth, perm./decid. ind.	1
17	11	652	IIIb	M. Archaic		Mammalia (Small)	Distal phalange	1
17	11	652	IIIb	M. Archaic		Mammalia (Small)	Metapodial	1
17	11	652	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	6
17	11	652	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
17	11	652	IIIb	M. Archaic		Vertebrata	Indeterminate	25
17	12	676	IIIb	Early/M. Archaic		Leporidae	Permanent tooth	2
17	12	676	IIIb	Early/M. Archaic		Mammalia (Medium)	Alveolar ridge fragment	1
17	12	676	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	11
17	12	676	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Long bone	2
17	12	676	IIIb	Early/M. Archaic		Mammalia (Small)	Cranium	1
17	12	676	IIIb	Early/M. Archaic		Mammalia (Small)	Patella	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
17	12	676	IIIb	Early/M. Archaic		Small/Medium Vertebrata	Long bone	13
17	12	676	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	48
17	13	703	IIIa/b	E. Archaic		Leporidae	Permanent tooth	1
17	13	703	IIIa/b	E. Archaic		Mammalia (Large)	Long bone	1
17	13	703	IIIa/b	E. Archaic		Mammalia (Large)	Tooth, perm./decid. ind.	2
17	13	703	IIIa/b	E. Archaic		Mammalia (Medium)	Vertebra	2
17	13	703	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	5
17	13	703	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	1
17	13	703	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	4
17	13	703	IIIa/b	E. Archaic		<i>Odocoileus</i> sp.	Middle phalange	1
17	13	703	IIIa/b	E. Archaic		Serpentes	Dorsal vertebra	5
17	13	703	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	3
17	13	703	IIIa/b	E. Archaic		Vertebrata	Indeterminate	25
18	8	188	IIIc/FILL	Unassigned		Mammalia (Large)	Indeterminate	1
18	8	188	IIIc/FILL	Unassigned		Mammalia (Large)	Long bone	1
18	8	188	IIIc/FILL	Unassigned		Mammalia (Medium/large)	Permanent tooth	1
18	8	188	IIIc/FILL	Unassigned		<i>Odocoileus</i> sp.	Humerus	1
18	8	188	IIIc/FILL	Unassigned		Small/Medium Vertebrata	Long bone	2
18	8	188	IIIc/FILL	Unassigned		Vertebrata	Indeterminate	1
18	9	371	IIIb/c/FILL	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
18	9	371	IIIb/c/FILL	Middle/L. Archaic		Leporidae	Permanent tooth	1
18	9	371	IIIb/c/FILL	Middle/L. Archaic		Mammalia (Large)	Long bone	3
18	9	371	IIIb/c/FILL	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	13
18	9	371	IIIb/c/FILL	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
18	9	371	IIIb/c/FILL	Middle/L. Archaic		Serpentes	Dorsal vertebra	1
18	9	371	IIIb/c/FILL	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	2
18	9	371	IIIb/c/FILL	Middle/L. Archaic		Vertebrata	Indeterminate	62
18	9	394	IIIb/c/FILL	Middle/L. Archaic		<i>Odocoileus</i> sp.	Tibia	1
18	10	412	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Mandible	1
18	10	412	IIIb/c	Middle/L. Archaic		Anura	Humerus	1
18	10	412	IIIb/c	Middle/L. Archaic		<i>Geomys</i> sp.	Femur	1
18	10	412	IIIb/c	Middle/L. Archaic		<i>Geomys</i> sp.	Permanent tooth	2
18	10	412	IIIb/c	Middle/L. Archaic		Leporidae	Permanent tooth	2
18	10	412	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	20
18	10	412	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	2
18	10	412	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Alveolar ridge fragment	1
18	10	412	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Tibia	1
18	10	412	IIIb/c	Middle/L. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
18	10	412	IIIb/c	Middle/L. Archaic		Medium vertebrate, class ind.	Middle phalange	1
18	10	412	IIIb/c	Middle/L. Archaic		Medium/Large Vertebrata	Long bone	1
18	10	412	IIIb/c	Middle/L. Archaic		Rodentia (Medium)	Permanent tooth	1
18	10	412	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	15
18	10	412	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Middle phalange	1
18	10	412	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
18	10	412	IIIb/c	Middle/L. Archaic		Testudinata	Shell fragment	6
18	10	412	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	118
18	10	429	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	4
18	11	2171	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal axial sesamoid	1
18	11	2171	IIIb/c	M. Archaic		Leporidae	Permanent tooth	1
18	11	2171	IIIb/c	M. Archaic		<i>Lepus californicus</i>	Calcaneus	1
18	11	2171	IIIb/c	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
18	11	2171	IIIb/c	M. Archaic		Mammalia (Medium)	Distal phalange	1
18	11	2171	IIIb/c	M. Archaic		Mammalia (Medium)	Middle phalange	1
18	11	2171	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	6
18	11	2171	IIIb/c	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	4
18	11	2171	IIIb/c	M. Archaic		Mammalia (Small)	Distal phalange	1
18	11	2171	IIIb/c	M. Archaic		Mammalia (Small)	Proximal phalange	1
18	11	2171	IIIb/c	M. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
18	11	2171	IIIb/c	M. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
18	11	2171	IIIb/c	M. Archaic		Serpentes	Dorsal vertebra	1
18	11	2171	IIIb/c	M. Archaic		Small/Medium Vertebrata	Long bone	10
18	11	2171	IIIb/c	M. Archaic		Testudinata	Carapace fragment ind.	4
18	11	2171	IIIb/c	M. Archaic		Vertebrata	Indeterminate	222
18	12	607	IIIb	M. Archaic		Leporidae	Cranium	1
18	12	607	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	6
18	12	607	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	2
18	12	607	IIIb	M. Archaic		Mammalia (Micro)	Femur	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
18	12	607	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	10
18	12	607	IIIb	M. Archaic		Vertebrata	Indeterminate	44
18	13	653	IIIb	M. Archaic		Colubridae	Dorsal vertebra	1
18	13	653	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	3
18	13	653	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	6
18	13	653	IIIb	M. Archaic		Medium/Large Vertebrata	Indeterminate	7
18	13	653	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	1
18	13	653	IIIb	M. Archaic		Vertebrata	Indeterminate	26
18	14	662	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	9
18	14	662	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	5
18	14	662	IIIb	M. Archaic		Vertebrata	Indeterminate	16
19	7	230	IIIc/FILL	Unassigned		Mammalia (Large)	Indeterminate	1
19	7	230	IIIc/FILL	Unassigned		Mammalia (Medium/large)	Indeterminate	2
19	7	230	IIIc/FILL	Unassigned		<i>Odocoileus</i> sp.	Permanent tooth	1
19	7	230	IIIc/FILL	Unassigned		Small/Medium Vertebrata	Long bone	2
19	7	230	IIIc/FILL	Unassigned		Vertebrata	Indeterminate	12
19	8A	262	IIIb/c/FILL	Unassigned		Leporidae	Metatarsal 3	1
19	8A	262	IIIb/c/FILL	Unassigned		Mammalia (Medium/large)	Indeterminate	10
19	8A	262	IIIb/c/FILL	Unassigned		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
19	8A	262	IIIb/c/FILL	Unassigned		Mammalia (Small/medium)	Alveolar ridge fragment	1
19	8A	262	IIIb/c/FILL	Unassigned		Medium/Large Vertebrata	Long bone	2
19	8A	262	IIIb/c/FILL	Unassigned		<i>Odocoileus</i> sp.	Permanent tooth	1
19	8A	262	IIIb/c/FILL	Unassigned		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
19	8A	262	IIIb/c/FILL	Unassigned		Small/Medium Vertebrata	Long bone	3
19	8A	262	IIIb/c/FILL	Unassigned		Small/Medium Vertebrata	Vertebra	1
19	8A	262	IIIb/c/FILL	Unassigned		Vertebrata	Indeterminate	88
19	8A	287	IIIb/c/FILL	Unassigned		Mammalia (Large)	Indeterminate	1
19	8A	287	IIIb/c/FILL	Unassigned		Mammalia (Medium/large)	Indeterminate	7
19	8A	329	IIIb/c/FILL	Unassigned		Mammalia (Large)	Long bone	1
19	8A	340	IIIb/c/FILL	Unassigned		<i>Odocoileus</i> sp.	Permanent tooth	1
19	8A	343	IIIb/c/FILL	Unassigned		Mammalia (Medium/large)	Indeterminate	2
19	8A	353	IIIb/c/FILL	Unassigned		Mammalia (Large)	Long bone	1
19	9A	365	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
19	9A	365	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Phalange	1
19	9A	365	IIIb/c	Middle/L. Archaic		Colubridae	Dorsal vertebra	1
19	9A	365	IIIb/c	Middle/L. Archaic		Leporidae	Permanent tooth	4
19	9A	365	IIIb/c	Middle/L. Archaic		<i>Lepus californicus</i>	Permanent tooth	2
19	9A	365	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Long bone	11
19	9A	365	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Caudal vertebra	1
19	9A	365	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	19
19	9A	365	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	15
19	9A	365	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Mandible	1
19	9A	365	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	4
19	9A	365	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Middle phalange	2
19	9A	365	IIIb/c	Middle/L. Archaic		<i>Odocoileus</i> sp.	Fused second & third carpal	1
19	9A	365	IIIb/c	Middle/L. Archaic		Small vertebrate, class ind.	Distal phalange	1
19	9A	365	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	12
19	9A	365	IIIb/c	Middle/L. Archaic		Testudinata	Shell fragment	3
19	9A	365	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	279
19	9A	427	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
19	9A	427	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	3
19	9A	618	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Long bone	3
19	9B	450	IIIb/c	Middle/L. Archaic	203	Mammalia (Medium/large)	Indeterminate	1
19	9B	450	IIIb/c	Middle/L. Archaic	203	<i>Odocoileus</i> sp.	Metapodial of paradiigit	1
19	9B	450	IIIb/c	Middle/L. Archaic	203	<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
19	9B	450	IIIb/c	Middle/L. Archaic	203	Small/Medium Vertebrata	Long bone	2
19	9B	450	IIIb/c	Middle/L. Archaic	203	Vertebrata	Indeterminate	21
19	10	487	IIIb/c	Middle/L. Archaic		Leporidae	Permanent tooth	1
19	10	487	IIIb/c	Middle/L. Archaic		Mammalia (Medium)	Cranium	1
19	10	487	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	16
19	10	487	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Mandible	1
19	10	487	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	4
19	10	487	IIIb/c	Middle/L. Archaic		Mammalia (Small/medium)	Tooth, perm./decid. ind.	2
19	10	487	IIIb/c	Middle/L. Archaic		Medium/Large Vertebrata	Long bone	2
19	10	487	IIIb/c	Middle/L. Archaic		<i>Odocoileus</i> sp.	Antler	1
19	10	487	IIIb/c	Middle/L. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	2
19	10	487	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	20

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
19	10	487	IIIb/c	Middle/L. Archaic		Testudinata	Shell fragment	1
19	10	487	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	162
19	11	513	IIIb	M. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal axial sesamoid	1
19	11	513	IIIb	M. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
19	11	513	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
19	11	513	IIIb	M. Archaic		Leporidae	Permanent tooth	4
19	11	513	IIIb	M. Archaic		Leporidae	Ulna	1
19	11	513	IIIb	M. Archaic		<i>Lepus californicus</i>	Patella	1
19	11	513	IIIb	M. Archaic		<i>Lepus californicus</i>	Third tarsal	1
19	11	513	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	7
19	11	513	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
19	11	513	IIIb	M. Archaic		Mammalia (Micro)	Permanent tooth	1
19	11	513	IIIb	M. Archaic		Mammalia (Small)	Proximal phalange	1
19	11	513	IIIb	M. Archaic		Medium/Large Vertebrata	Indeterminate	2
19	11	513	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	8
19	11	513	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
19	11	513	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Distal phalange	1
19	11	513	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	2
19	11	513	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Scapula	1
19	11	513	IIIb	M. Archaic		Testudinata	Shell fragment	1
19	11	513	IIIb	M. Archaic		Vertebrata	Indeterminate	216
19	12	626	IIIb	M. Archaic		cf. <i>Microtus</i> sp.	Mandible	1
19	12	626	IIIb	M. Archaic		cf. <i>Microtus</i> sp.	Permanent tooth	1
19	12	626	IIIb	M. Archaic		Colubridae	Dorsal vertebra	1
19	12	626	IIIb	M. Archaic		Leporidae	Metapodial	1
19	12	626	IIIb	M. Archaic		<i>Lepus californicus</i>	Metatarsal 4	1
19	12	626	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
19	12	626	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	3
19	12	626	IIIb	M. Archaic		Small vertebrate, class ind.	Distal phalange	1
19	12	626	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	15
19	12	626	IIIb	M. Archaic		Testudinata	Shell fragment	2
19	12	626	IIIb	M. Archaic		Vertebrata	Indeterminate	81
19	13	654	IIIb	M. Archaic		Mammalia (Large)	Long bone	1
19	13	654	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	7
19	13	654	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	2
19	13	654	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
19	13	654	IIIb	M. Archaic		Small vertebrate, class ind.	Proximal phalange	1
19	13	654	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	4
19	13	654	IIIb	M. Archaic		Testudinata	Shell fragment	1
19	13	654	IIIb	M. Archaic		Vertebrata	Indeterminate	40
19	14A	663	IIIb	M. Archaic		Mammalia (Medium)	Middle phalange	1
19	14A	663	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	11
19	14A	663	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
19	14A	663	IIIb	M. Archaic		Mammalia (Micro)	Humerus	1
19	14A	663	IIIb	M. Archaic		Mammalia (Small)	Long bone	1
19	14A	663	IIIb	M. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
19	14A	663	IIIb	M. Archaic		Serpentes	Dorsal vertebra	1
19	14A	663	IIIb	M. Archaic		Small vertebrate, class ind.	Middle phalange	1
19	14A	663	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	10
19	14A	663	IIIb	M. Archaic		Vertebrata	Indeterminate	31
20	7	203	IIIc	L. Archaic		Vertebrata	Indeterminate	2
20	13A	489	IIIb	M. Archaic		Vertebrata	Indeterminate	2
20	16A	562	IIIa/b	Early/M. Archaic		Small/Medium Vertebrata	Long bone	1
21	1	154	FILL	Unassigned		Mammalia (Large)	Indeterminate	1
21	5	175	IIIc/FILL	Unassigned		Mammalia (Large)	Indeterminate	2
21	5	175	IIIc/FILL	Unassigned		Mammalia (Medium/large)	Indeterminate	5
21	5	175	IIIc/FILL	Unassigned		Mammalia (Medium/large)	Long bone	2
21	5	175	IIIc/FILL	Unassigned		<i>Odocoileus</i> sp.	Distal fibula	1
21	5	175	IIIc/FILL	Unassigned		Vertebrata	Indeterminate	6
21	6A-B	209	IIIc/FILL	Unassigned	201/NO	Mammalia (Large)	Long bone	1
21	6A-B	209	IIIc/FILL	Unassigned	201/NO	Mammalia (Medium/large)	Indeterminate	9
21	6A-B	209	IIIc/FILL	Unassigned	201/NO	Vertebrata	Indeterminate	27
21	6B	227	IIIc/FILL	Unassigned	201	Mammalia (Large)	Long bone	1
21	6B	253	IIIc/FILL	Unassigned	201	Mammalia (Medium/large)	Long bone	1
21	7A	254	IIIc	L. Archaic		Medium/Large Vertebrata	Long bone	2
21	7A	260	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
21	7A	260	IIIc	L. Archaic		Mammalia (Large)	Tooth, perm./decid. ind.	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
21	7A	260	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	18
21	7A	260	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	3
21	7A	260	IIIc	L. Archaic		Mammalia (Small)	Ulna	1
21	7A	260	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	2
21	7A	260	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
21	7A	260	IIIc	L. Archaic		Vertebrata	Indeterminate	40
21	7A	326	IIIc	L. Archaic		<i>Antilocapra/Odocoileus</i>	Ulnar carpal bone	1
21	7B	367	IIIc	L. Archaic	201	Mammalia (Medium/large)	Indeterminate	1
21	7B	381	IIIc	L. Archaic	201	Mammalia (Medium/large)	Indeterminate	3
21	7B	383	IIIc	L. Archaic	201	Mammalia (Medium/large)	Indeterminate	1
21	7B	438	IIIc	L. Archaic	201	Mammalia (Medium)	Middle phalange	1
21	7B	438	IIIc	L. Archaic	201	Mammalia (Medium/large)	Indeterminate	40
21	7B	438	IIIc	L. Archaic	201	Mammalia (Medium/large)	Long bone	2
21	7B	438	IIIc	L. Archaic	201	Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
21	7B	438	IIIc	L. Archaic	201	Mammalia (Small/medium)	Vertebra	1
21	7B	438	IIIc	L. Archaic	201	<i>Neotoma</i> sp.	Permanent tooth	1
21	7B	438	IIIc	L. Archaic	201	<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
21	7B	438	IIIc	L. Archaic	201	Rodentia (Medium)	Permanent tooth	3
21	7B	438	IIIc	L. Archaic	201	Small/Medium Vertebrata	Long bone	14
21	7B	438	IIIc	L. Archaic	201	Testudinata	Shell fragment	2
21	7B	438	IIIc	L. Archaic	201	Vertebrata	Indeterminate	172
21	8	431	IIIb/c	L. Archaic		<i>Canis</i> sp.	Permanent tooth	1
21	8	431	IIIb/c	L. Archaic		Leporidae	Distal phalange	1
21	8	431	IIIb/c	L. Archaic		<i>Lepus californicus</i>	Calcaneus	1
21	8	431	IIIb/c	L. Archaic		Mammalia (Large)	Indeterminate	3
21	8	431	IIIb/c	L. Archaic		Mammalia (Large)	Long bone	4
21	8	431	IIIb/c	L. Archaic		Mammalia (Medium/large)	Cranium	1
21	8	431	IIIb/c	L. Archaic		Mammalia (Medium/large)	Indeterminate	54
21	8	431	IIIb/c	L. Archaic		Mammalia (Medium/large)	Long bone	5
21	8	431	IIIb/c	L. Archaic		Mammalia (Medium/large)	Permanent tooth	1
21	8	431	IIIb/c	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	5
21	8	431	IIIb/c	L. Archaic		Mammalia (Small)	Femur	1
21	8	431	IIIb/c	L. Archaic		Mammalia (Small/medium)	Metapodial	1
21	8	431	IIIb/c	L. Archaic		Mammalia (Very large)	Long bone	4
21	8	431	IIIb/c	L. Archaic		<i>Odocoileus</i> sp.	Proximal phalange	1
21	8	431	IIIb/c	L. Archaic		Small/Medium Vertebrata	Middle phalange	2
21	8	431	IIIb/c	L. Archaic		Small/Medium Vertebrata	Phalange	1
21	8	431	IIIb/c	L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	2
21	8	431	IIIb/c	L. Archaic		Testudinata	Shell fragment	2
21	8	431	IIIb/c	L. Archaic		Vertebrata	Indeterminate	491
21	8	431	IIIb/c	L. Archaic		Vertebrata	Long bone	12
21	8	435	IIIb/c	L. Archaic		<i>Antilocapra/Odocoileus</i>	Femur	1
21	8	484	IIIb/c	L. Archaic		Mammalia (Large)	Long bone	1
21	9	503	IIIb/c	Middle/L. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
21	9	503	IIIb/c	Middle/L. Archaic		<i>Geomys</i> sp.	Ulna	1
21	9	503	IIIb/c	Middle/L. Archaic		Leporidae	Permanent tooth	2
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	21
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	1
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	5
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Distal phalange	1
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Humerus	1
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Metapodial	2
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Metatarsal	1
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Permanent tooth	2
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Radius	1
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
21	9	503	IIIb/c	Middle/L. Archaic		Mammalia (Small/medium)	Vertebra	1
21	9	503	IIIb/c	Middle/L. Archaic		<i>Odocoileus</i> sp.	Proximal phalange	2
21	9	503	IIIb/c	Middle/L. Archaic		Rodentia (Medium)	Femur	1
21	9	503	IIIb/c	Middle/L. Archaic		Rodentia (Medium)	Permanent tooth	1
21	9	503	IIIb/c	Middle/L. Archaic		Serpentes	Dorsal vertebra	3
21	9	503	IIIb/c	Middle/L. Archaic		Small vertebrate, class ind.	Vertebra	1
21	9	503	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	4
21	9	503	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	2
21	9	503	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Scapula	1
21	9	503	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	156
21	10	522	IIIb	Middle/L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
21	10	522	IIIb	Middle/L. Archaic		Colubridae	Dorsal vertebra	1
21	10	522	IIIb	Middle/L. Archaic		<i>Geomys</i> sp.	Cranium	1
21	10	522	IIIb	Middle/L. Archaic		Leporidae	Permanent tooth	1
21	10	522	IIIb	Middle/L. Archaic		<i>Lepus californicus</i>	Humerus	2
21	10	522	IIIb	Middle/L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Large)	Indeterminate	2
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Medium)	Distal phalange	1
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	14
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	1
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Small)	Distal phalange	1
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Small)	Epiphysis	1
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Small)	Long bone	1
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Small)	Permanent tooth	2
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Small)	Proximal phalange	1
21	10	522	IIIb	Middle/L. Archaic		Mammalia (Small)	Radius	1
21	10	522	IIIb	Middle/L. Archaic		<i>Neotoma</i> sp.	Humerus	1
21	10	522	IIIb	Middle/L. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
21	10	522	IIIb	Middle/L. Archaic		<i>Odocoileus</i> sp.	Fused second & third carpal	1
21	10	522	IIIb	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	25
21	10	522	IIIb	Middle/L. Archaic		Small/Medium Vertebrata	Rib	1
21	10	522	IIIb	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	1
21	10	522	IIIb	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 5	1
21	10	522	IIIb	Middle/L. Archaic		Vertebrata	Indeterminate	175
21	11	555	IIIb	M. Archaic		Colubridae	Dorsal vertebra	1
21	11	555	IIIb	M. Archaic		Leporidae	Cranium	1
21	11	555	IIIb	M. Archaic		Leporidae	Femur	1
21	11	555	IIIb	M. Archaic		Leporidae	Permanent tooth	3
21	11	555	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	3
21	11	555	IIIb	M. Archaic		Mammalia (Large)	Indeterminate	2
21	11	555	IIIb	M. Archaic		Mammalia (Large)	Long bone	1
21	11	555	IIIb	M. Archaic		Mammalia (Medium)	Tarsal	1
21	11	555	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	5
21	11	555	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	4
21	11	555	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
21	11	555	IIIb	M. Archaic		Mammalia (Micro)	Calcaneus	1
21	11	555	IIIb	M. Archaic		Mammalia (Small)	Permanent tooth	1
21	11	555	IIIb	M. Archaic		Rodentia (Small)	Permanent tooth	1
21	11	555	IIIb	M. Archaic		Small vertebrate, class ind.	Phalange	1
21	11	555	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	14
21	11	555	IIIb	M. Archaic		Vertebrata	Indeterminate	69
21	12	584	IIIb	M. Archaic		Leporidae	Permanent tooth	4
21	12	584	IIIb	M. Archaic		Leporidae	Scapula	1
21	12	584	IIIb	M. Archaic		Mammalia (Large)	Long bone	1
21	12	584	IIIb	M. Archaic		Mammalia (Large)	Vertebra	1
21	12	584	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	4
21	12	584	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	4
21	12	584	IIIb	M. Archaic		Mammalia (Small)	Phalange	1
21	12	584	IIIb	M. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
21	12	584	IIIb	M. Archaic		Serpentes	Dorsal vertebra	1
21	12	584	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	9
21	12	584	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
21	12	584	IIIb	M. Archaic		Vertebrata	Indeterminate	68
21	13	594	IIIb	M. Archaic		Mammalia (Large)	Indeterminate	1
21	13	594	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	2
21	13	594	IIIb	M. Archaic		Medium/Large Vertebrata	Indeterminate	2
21	13	594	IIIb	M. Archaic		Osteichthyes	Dental bearing element	1
21	13	594	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	9
21	13	594	IIIb	M. Archaic		Vertebrata	Indeterminate	15
21	14	649	IIIb	M. Archaic		cf. <i>Geomys</i> sp.	Cranium	1
21	14	649	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
21	14	649	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	4
21	14	649	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	1
21	14	649	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
21	14	649	IIIb	M. Archaic		Rodentia (Medium)	Permanent tooth	1
21	14	649	IIIb	M. Archaic		Serpentes	Dorsal vertebra	1
21	14	649	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	2
21	14	649	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Radius	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
21	14	649	IIIb	M. Archaic		Vertebrata	Indeterminate	14
22	4	179	FILL	Unassigned		Mammalia (Medium/large)	Indeterminate	2
22	5	183	IIIc/FILL	Unassigned		<i>Antilocapra/Odocoileus</i>	Calcaneus	1
22	5	208	IIIc/FILL	Unassigned		Artiodactyla	Tooth, perm./decid. ind.	2
22	5	208	IIIc/FILL	Unassigned		Mammalia (Large)	Indeterminate	1
22	5	208	IIIc/FILL	Unassigned		Mammalia (Large)	Long bone	1
22	5	208	IIIc/FILL	Unassigned		Mammalia (Large)	Vertebra	1
22	5	208	IIIc/FILL	Unassigned		Mammalia (Medium/large)	Epiphysis	1
22	5	208	IIIc/FILL	Unassigned		Mammalia (Medium/large)	Indeterminate	23
22	5	208	IIIc/FILL	Unassigned		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
22	5	208	IIIc/FILL	Unassigned		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
22	5	208	IIIc/FILL	Unassigned		Small/Medium Vertebrata	Long bone	4
22	5	208	IIIc/FILL	Unassigned		Vertebrata	Indeterminate	61
22	6	226	IIIc	L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	13
22	6	226	IIIc	L. Archaic		cf. Leporidae	Lumbar vertebra	1
22	6	226	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	28
22	6	226	IIIc	L. Archaic		Mammalia (Medium/large)	Long bone	1
22	6	226	IIIc	L. Archaic		Mammalia (Small/medium)	Alveolar ridge fragment	1
22	6	226	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	5
22	6	226	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
22	6	226	IIIc	L. Archaic		Vertebrata	Indeterminate	120
22	6	233	IIIc	L. Archaic		Mammalia (Large)	Femur	1
22	7	286	IIIc	L. Archaic		Leporidae	Mandible	1
22	7	286	IIIc	L. Archaic		<i>Lepus californicus</i>	Patella	1
22	7	286	IIIc	L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
22	7	286	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
22	7	286	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	24
22	7	286	IIIc	L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	7
22	7	286	IIIc	L. Archaic		Mammalia (Medium/large)	Vertebra	1
22	7	286	IIIc	L. Archaic		Mammalia (Small)	Alveolar ridge fragment	1
22	7	286	IIIc	L. Archaic		<i>Neotoma</i> sp.	Humerus	1
22	7	286	IIIc	L. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
22	7	286	IIIc	L. Archaic		Serpentes	Dorsal vertebra	1
22	7	286	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	14
22	7	286	IIIc	L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
22	7	286	IIIc	L. Archaic		Vertebrata	Indeterminate	353
22	7	328	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	2
22	7	331	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
22	7-10	650	IIIc	L. Archaic		Mammalia (Large)	Indeterminate	1
22	7-10	650	IIIc	L. Archaic		Mammalia (Large)	Long bone	1
22	7-10	650	IIIc	L. Archaic		Mammalia (Medium/large)	Indeterminate	1
22	7-10	650	IIIc	L. Archaic		Medium/Large Vertebrata	Indeterminate	3
22	7-10	650	IIIc	L. Archaic		Small/Medium Vertebrata	Long bone	1
22	7-10	650	IIIc	L. Archaic		Vertebrata	Indeterminate	7
22	8	399	IIIb/c	L. Archaic	205	<i>Antilocapra americana</i>	Permanent tooth	1
22	8	399	IIIb/c	L. Archaic	205	Leporidae	Permanent tooth	1
22	8	399	IIIb/c	L. Archaic	205	Mammalia (Medium/large)	Indeterminate	24
22	8	399	IIIb/c	L. Archaic	205	Mammalia (Medium/large)	Long bone	1
22	8	399	IIIb/c	L. Archaic	205	Mammalia (Medium/large)	Tooth, perm./decid. ind.	6
22	8	399	IIIb/c	L. Archaic	205	Mammalia (Small)	Radius	1
22	8	399	IIIb/c	L. Archaic	205	Mammalia (Small/medium)	Metapodial	1
22	8	399	IIIb/c	L. Archaic	205	Mammalia (Small/medium)	Permanent tooth	1
22	8	399	IIIb/c	L. Archaic	205	Mammalia (Small/medium)	Proximal phalange	1
22	8	399	IIIb/c	L. Archaic	205	<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
22	8	399	IIIb/c	L. Archaic	205	Rodentia	Permanent tooth	1
22	8	399	IIIb/c	L. Archaic	205	Small/Medium Vertebrata	Long bone	17
22	8	399	IIIb/c	L. Archaic	205	Vertebrata	Indeterminate	283
22	8	428	IIIb/c	L. Archaic	205	Mammalia (Large)	Indeterminate	2
22	8	428	IIIb/c	L. Archaic	205	<i>Odocoileus</i> sp.	Middle phalange	1
22	8	428	IIIb/c	L. Archaic	205	<i>Odocoileus</i> sp.	Permanent tooth	1
22	8-10	2183	IIIb/c	Middle/L. Archaic		Artiodactyla	Tooth, perm./decid. ind.	2
22	8-10	2183	IIIb/c	Middle/L. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
22	8-10	2183	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	1
22	8-10	2183	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	12
22	8B	404	IIIb/c	L. Archaic	205	<i>Antilocapra/Odocoileus</i>	Ulna	1
22	8B	404	IIIb/c	L. Archaic	205	Mammalia (Medium/large)	Long bone	1
22	9A	521	IIIb/c	Middle/L. Archaic		<i>Antilocapra/Odocoileus</i>	Axis	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
22	9A	521	IIIb/c	Middle/L. Archaic		Colubridae	Dorsal vertebra	1
22	9A	521	IIIb/c	Middle/L. Archaic		Leporidae	Astragalus	1
22	9A	521	IIIb/c	Middle/L. Archaic		Leporidae	Permanent tooth	2
22	9A	521	IIIb/c	Middle/L. Archaic		Leporidae	Scapula	1
22	9A	521	IIIb/c	Middle/L. Archaic		<i>Lepus californicus</i>	Third tarsal	1
22	9A	521	IIIb/c	Middle/L. Archaic		Mammalia (Large)	Long bone	2
22	9A	521	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	18
22	9A	521	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	5
22	9A	521	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Metapodial	1
22	9A	521	IIIb/c	Middle/L. Archaic		Mammalia (Small)	Permanent tooth	3
22	9A	521	IIIb/c	Middle/L. Archaic		Mammalia (Small/medium)	Phalange	1
22	9A	521	IIIb/c	Middle/L. Archaic		Micro vertebrate, class ind.	Mandible	1
22	9A	521	IIIb/c	Middle/L. Archaic		Serpentes	Dorsal vertebra	1
22	9A	521	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	3
22	9A	521	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
22	9A	521	IIIb/c	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	1
22	9A	521	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	136
22	9B	558	IIIb/c	Middle/L. Archaic	210	Leporidae	Permanent tooth	1
22	9B	558	IIIb/c	Middle/L. Archaic	210	Mammalia (Large)	Vertebra	1
22	9B	558	IIIb/c	Middle/L. Archaic	210	Medium/Large Vertebrata	Indeterminate	3
22	9B	558	IIIb/c	Middle/L. Archaic	210	Serpentes	Dorsal vertebra	1
22	9B	558	IIIb/c	Middle/L. Archaic	210	Vertebrata	Indeterminate	20
22	10A	538	IIIb	Middle/L. Archaic		Colubridae	Dorsal vertebra	2
22	10A	538	IIIb	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	6
22	10A	538	IIIb	Middle/L. Archaic		Mammalia (Medium/large)	Long bone	2
22	10A	538	IIIb	Middle/L. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	4
22	10A	538	IIIb	Middle/L. Archaic		Mammalia (Micro)	Permanent tooth	2
22	10A	538	IIIb	Middle/L. Archaic		Mammalia (Micro)	Tibia	1
22	10A	538	IIIb	Middle/L. Archaic		Mammalia (Small)	Alveolar ridge fragment	2
22	10A	538	IIIb	Middle/L. Archaic		Mammalia (Small)	Mandible	2
22	10A	538	IIIb	Middle/L. Archaic		Mammalia (Small)	Tarsal	1
22	10A	538	IIIb	Middle/L. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
22	10A	538	IIIb	Middle/L. Archaic		Serpentes	Dorsal vertebra	1
22	10A	538	IIIb	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	12
22	10A	538	IIIb	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Metacarpal 2	1
22	10A	538	IIIb	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	2
22	10A	538	IIIb	Middle/L. Archaic		<i>Sylvilagus</i> sp.	Scapula	1
22	10A	538	IIIb	Middle/L. Archaic		Testudinata	Shell fragment	4
22	10A	538	IIIb	Middle/L. Archaic		Vertebrata	Indeterminate	147
22	10B	566	IIIb	Middle/L. Archaic	210	Leporidae	Permanent tooth	1
22	10B	566	IIIb	Middle/L. Archaic	210	<i>Lepus californicus</i>	Permanent tooth	1
22	10B	566	IIIb	Middle/L. Archaic	210	Mammalia (Small)	Metapodial	1
22	10B	566	IIIb	Middle/L. Archaic	210	Medium/Large Vertebrata	Indeterminate	1
22	10B	566	IIIb	Middle/L. Archaic	210	Small/Medium Vertebrata	Long bone	10
22	10B	566	IIIb	Middle/L. Archaic	210	<i>Sylvilagus</i> sp.	Metatarsal 3	1
22	10B	566	IIIb	Middle/L. Archaic	210	Vertebrata	Indeterminate	43
22	11	572	IIIb	M. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
22	11	572	IIIb	M. Archaic		<i>Chrysemys</i> sensu lato	Peripheral	1
22	11	572	IIIb	M. Archaic		Colubridae	Dorsal vertebra	1
22	11	572	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
22	11	572	IIIb	M. Archaic		Leporidae	Permanent tooth	2
22	11	572	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
22	11	572	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	12
22	11	572	IIIb	M. Archaic		Mammalia (Medium/large)	Permanent tooth	1
22	11	572	IIIb	M. Archaic		Mammalia (Small/medium)	Middle phalange	1
22	11	572	IIIb	M. Archaic		Mammalia (Small/medium)	Phalange	1
22	11	572	IIIb	M. Archaic		Serpentes	Dorsal vertebra	3
22	11	572	IIIb	M. Archaic		Small/Medium Vertebrata	Distal phalange	1
22	11	572	IIIb	M. Archaic		Small/Medium Vertebrata	Phalange	1
22	11	572	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Femur	1
22	11	572	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Metacarpal 2	1
22	11	572	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	2
22	11	572	IIIb	M. Archaic		Vertebrata	Indeterminate	208
22	12A	610	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	7
22	12A	610	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	3
22	12A	610	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
22	12A	610	IIIb	M. Archaic		Mammalia (Small/medium)	Patella	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
22	12A	610	IIIb	M. Archaic		Medium/Large Vertebrata	Indeterminate	3
22	12A	610	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	9
22	12A	610	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	3
22	12A	610	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Ulna	1
22	12A	610	IIIb	M. Archaic		Testudinata	Shell fragment	2
22	12A	610	IIIb	M. Archaic		Vertebrata	Indeterminate	65
22	13	644	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	8
22	13	644	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	2
22	13	644	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	6
22	13	644	IIIb	M. Archaic		Vertebrata	Indeterminate	19
22	14	675	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	2
22	14	675	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	16
22	14	675	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	1
22	14	675	IIIb	M. Archaic		Mammalia (Micro)	Long bone	1
22	14	675	IIIb	M. Archaic		Mammalia (Micro)	Permanent tooth	2
22	14	675	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	8
22	14	675	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 2	1
22	14	675	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Ulna	1
22	14	675	IIIb	M. Archaic		Testudinata	Shell fragment	1
22	14	675	IIIb	M. Archaic		Vertebrata	Indeterminate	44
25	14	697	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
25	14	697	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	1
25	14	697	IIIb	M. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
25	14	697	IIIb	M. Archaic		<i>Odocoileus</i> sp.	Middle phalange	1
25	14	697	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	4
25	14	697	IIIb	M. Archaic		Vertebrata	Indeterminate	41
25	15	724	IIIb	Early/M. Archaic		Leporidae	Permanent tooth	1
25	15	724	IIIb	Early/M. Archaic		Mammalia (Small)	Epiphysis	1
25	15	724	IIIb	Early/M. Archaic		Medium/Large Vertebrata	Indeterminate	1
25	15	724	IIIb	Early/M. Archaic		Rodentia (Small/Medium)	Permanent tooth	2
25	15	724	IIIb	Early/M. Archaic		Small vertebrate, class ind.	Phalange	1
25	15	724	IIIb	Early/M. Archaic		Small/Medium Vertebrata	Long bone	6
25	15	724	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	40
25	16	748	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	2
25	16	748	IIIb	Early/M. Archaic		Mammalia (Small)	Permanent tooth	1
25	16	748	IIIb	Early/M. Archaic		Small/Medium Vertebrata	Long bone	1
25	16	748	IIIb	Early/M. Archaic		Testudinata	Carapace fragment ind.	1
25	16	748	IIIb	Early/M. Archaic		Testudinata	Shell fragment	1
25	16	748	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	23
25	17	481	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	1
25	17	481	IIIb	Early/M. Archaic		Testudinata	Carapace fragment ind.	1
25	17	481	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	6
25	18	823	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	7
25	19	848	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
25	19	848	IIIa/b	E. Archaic		Vertebrata	Indeterminate	8
25	20	871	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
25	20	871	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	2
25	20	871	IIIa/b	E. Archaic		Vertebrata	Indeterminate	6
25	21	909	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	2
25	21	909	IIIa	E. Archaic		Vertebrata	Indeterminate	12
25	22	924	IIIa	E. Archaic		Leporidae	Calcaneus	1
25	22	924	IIIa	E. Archaic		Mammalia (Micro)	Femur	1
25	22	924	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	3
25	22	924	IIIa	E. Archaic		Small vertebrate, class ind.	Phalange	1
25	22	924	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	4
25	22	924	IIIa	E. Archaic		Squamata	Dorsal vertebra	1
25	22	924	IIIa	E. Archaic		Vertebrata	Indeterminate	24
25	24	978	IIIa	E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
25	24	978	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
25	24	978	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	11
25	24	978	IIIa	E. Archaic		Vertebrata	Indeterminate	46
25	25	1040	IIIa	E. Archaic		<i>Lepus californicus</i>	Tibia	1
25	25	1040	IIIa	E. Archaic		Mammalia (Medium)	Proximal phalange	1
25	25	1040	IIIa	E. Archaic		Mammalia (Small)	Permanent tooth	1
25	25	1040	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
25	25	1040	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	6
25	25	1040	IIIa	E. Archaic		Vertebrata	Indeterminate	19

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
25	26	1161	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	2
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Astragalus	1
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	3
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Distal phalange	2
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Proximal phalange	1
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	2
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	16
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	3
25	26	1161	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	60
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Caudal vertebra	1
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Pelvis	1
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Mammalia micro/small	Calcaneus	1
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Mammalia micro/small	Permanent tooth	1
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	13
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Testudinata	Carapace fragment ind.	1
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	34
25	27	1196	II/IIIa	L. Paleo./E. Archaic		Viperidae	Dorsal vertebra	1
25	28	1236	II/IIIa	L. Paleo./E. Archaic		Colubridae	Dorsal vertebra	1
25	28	1236	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Cranium	1
25	28	1236	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
25	28	1236	II/IIIa	L. Paleo./E. Archaic		Serpentes	Dorsal vertebra	1
25	28	1236	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	10
25	28	1236	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	23
25	29	1270	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
25	29	1270	II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
25	29	1270	II	L. Paleo.		Vertebrata	Indeterminate	22
25	30	1316	II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
25	30	1316	II	L. Paleo.		Mammalia (Small)	Metapodial	1
25	30	1316	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
25	30	1316	II	L. Paleo.		Testudinata	Shell fragment	1
25	30	1316	II	L. Paleo.		Vertebrata	Indeterminate	23
25	31	1377	II	L. Paleo.		Leporidae	Permanent tooth	1
25	31	1377	II	L. Paleo.		Medium/Large Vertebrata	Long bone	2
25	31	1377	II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
25	31	1377	II	L. Paleo.		Vertebrata	Indeterminate	32
25	32	1411	II	L. Paleo.		Leporidae	Permanent tooth	1
25	32	1411	II	L. Paleo.		<i>Lepus californicus</i>	Metatarsal 4	1
25	32	1411	II	L. Paleo.		Mammalia (Small)	Epiphysis	1
25	32	1411	II	L. Paleo.		Mammalia (Small)	Radius	2
25	32	1411	II	L. Paleo.		Small vertebrate, class ind.	Middle phalange	1
25	32	1411	II	L. Paleo.		Small/Medium Vertebrata	Long bone	21
25	32	1411	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
25	32	1411	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metatarsal 3	1
25	32	1411	II	L. Paleo.		Vertebrata	Indeterminate	44
25	33	1293	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
25	33	1293	II	L. Paleo.		Leporidae	Permanent tooth	1
25	33	1293	II	L. Paleo.		Mammalia (Medium)	Distal phalange	1
25	33	1293	II	L. Paleo.		Mammalia (Medium)	Vertebra	2
25	33	1293	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	7
25	33	1293	II	L. Paleo.		Mammalia (Medium/large)	Long bone	4
25	33	1293	II	L. Paleo.		Mammalia (Medium/large)	Permanent tooth	1
25	33	1293	II	L. Paleo.		Mammalia (Micro)	Permanent tooth	1
25	33	1293	II	L. Paleo.		Mammalia (Small)	Long bone	1
25	33	1293	II	L. Paleo.		Mammalia (Small)	Tibia	1
25	33	1293	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	4
25	33	1293	II	L. Paleo.		Osteichthyes (Small)	Spine	1
25	33	1293	II	L. Paleo.		Rodentia (Medium)	Permanent tooth	1
25	33	1293	II	L. Paleo.		Rodentia (Small)	Humerus	1
25	33	1293	II	L. Paleo.		Serpentes	Dorsal vertebra	2
25	33	1293	II	L. Paleo.		Small vertebrate, class ind.	Proximal phalange	1
25	33	1293	II	L. Paleo.		Small vertebrate, class ind.	Vertebra	1
25	33	1293	II	L. Paleo.		Small/Medium Vertebrata	Long bone	45

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
25	33	1293	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
25	33	1293	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metacarpal 2	1
25	33	1293	II	L. Paleo.		Vertebrata	Indeterminate	113
25	34	1598	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
25	34	1598	II	L. Paleo.		Mammalia (Medium)	Caudal vertebra	1
25	34	1598	II	L. Paleo.		Mammalia (Medium)	Distal phalange	1
25	34	1598	II	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
25	34	1598	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
25	34	1598	II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
25	34	1598	II	L. Paleo.		Vertebrata	Indeterminate	33
25	35	1715	II	L. Paleo.		Mammalia (Small)	Permanent tooth	3
25	35	1715	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	12
25	35	1715	II	L. Paleo.		Small/Medium Vertebrata	Long bone	13
25	35	1715	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	3
25	35	1715	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metapodial	1
25	35	1715	II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
25	35	1715	II	L. Paleo.		<i>Sylvilagus</i> sp.	Radius	1
25	35	1715	II	L. Paleo.		Vertebrata	Indeterminate	24
25	36	1619	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
25	36	1619	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
25	36	1619	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	8
25	36	1734	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	5
25	37	1634	Isi-c/II	L. Paleo.		Rodentia (Small/Medium)	Permanent tooth	1
25	37	1634	Isi-c/II	L. Paleo.		Small vertebrate, class ind.	Middle phalange	1
25	37	1634	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
25	37	1634	Isi-c/II	L. Paleo.		<i>Sylvilagus</i> sp.	Humerus	1
25	37	1634	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	14
25	38	1836	Isi-c/II	L. Paleo.		Leporidae	Permanent tooth	1
25	38	1836	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
25	38	1836	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
25	38	1836	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	5
25	38	1836	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	14
25	39	1891	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
25	39	1891	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
25	39-45	2839	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
25	39-45	2839	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
25	39-45	2839	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
26	15	700	IIIb	Early/M. Archaic		Colubridae	Dorsal vertebra	1
26	15	700	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Long bone	1
26	15	700	IIIb	Early/M. Archaic		Small/Medium Vertebrata	Long bone	1
26	15	700	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	4
26	16	714	IIIa/b	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
26	16	714	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	5
26	16	714	IIIa/b	E. Archaic		Testudinata	Shell fragment	2
26	16	714	IIIa/b	E. Archaic		Vertebrata	Indeterminate	9
26	16	714	IIIa/b	E. Archaic		Viperidae	Dorsal vertebra	1
26	17	752	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	4
26	17	752	IIIa/b	E. Archaic		Vertebrata	Indeterminate	6
26	18	407	IIIa/b	E. Archaic		Leporidae	Permanent tooth	1
26	18	407	IIIa/b	E. Archaic		Mammalia (Large)	Long bone	3
26	18	407	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	7
26	18	407	IIIa/b	E. Archaic		Testudinata	Shell fragment	2
26	18	407	IIIa/b	E. Archaic		Vertebrata	Indeterminate	8
26	19	810	IIIa/b	E. Archaic		Testudinata	Carapace fragment ind.	1
26	19	810	IIIa/b	E. Archaic		Vertebrata	Indeterminate	12
26	20	835	IIIa/b	E. Archaic		Mammalia (Medium)	Long bone	1
26	20	835	IIIa/b	E. Archaic		Vertebrata	Indeterminate	5
26	21	855	IIIa	E. Archaic		Medium/Large Vertebrata	Long bone	1
26	21	855	IIIa	E. Archaic		Vertebrata	Indeterminate	11
26	22	897	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Tooth, perm./decid. ind.	1
26	22	897	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
26	22	897	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	10
26	22	897	IIIa	E. Archaic		Testudinata	Carapace fragment ind.	1
26	22	897	IIIa	E. Archaic		Vertebrata	Indeterminate	13
26	24	938	IIIa	E. Archaic		Mammalia (Large)	Indeterminate	1
26	24	938	IIIa	E. Archaic		Mammalia (Large)	Long bone	1
26	24	938	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
26	24	938	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
26	24	938	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
26	24	938	IIIa	E. Archaic		Vertebrata	Indeterminate	4
26	25	1094	IIIa	E. Archaic		Mammalia (Medium)	Proximal phalange	1
26	25	1094	IIIa	E. Archaic		Mammalia (Medium)	Scapula	1
26	25	1094	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	5
26	25	1094	IIIa	E. Archaic		Mammalia (Small)	Permanent tooth	1
26	25	1094	IIIa	E. Archaic		Mammalia (Small)	Rib	1
26	25	1094	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
26	25	1094	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	8
26	25	1094	IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
26	25	1094	IIIa	E. Archaic		Testudinata	Neural	1
26	25	1094	IIIa	E. Archaic		Vertebrata	Indeterminate	48
26	26	1153	IIIa	E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
26	26	1153	IIIa	E. Archaic		Leporidae	Permanent tooth	3
26	26	1153	IIIa	E. Archaic		Leporidae	Ulna	1
26	26	1153	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
26	26	1153	IIIa	E. Archaic		Mammalia (Small)	Phalange	1
26	26	1153	IIIa	E. Archaic		Osteichthyes (Small)	Sagitta otolith	1
26	26	1153	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	11
26	26	1153	IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	2
26	26	1153	IIIa	E. Archaic		Vertebrata	Indeterminate	38
26	27	1199	II/IIIa	L. Paleo./E. Archaic		<i>Ictalurus</i> sp.	Pectoral spine	1
26	27	1199	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Alveolar ridge fragment	1
26	27	1199	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	3
26	27	1199	II/IIIa	L. Paleo./E. Archaic		Serpentes	Dorsal vertebra	1
26	27	1199	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	8
26	27	1199	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Radius	1
26	27	1199	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
26	27	1199	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	31
26	28	1260	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Metapodial	1
26	28	1260	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	8
26	28	1260	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	21
26	29	1378	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
26	29	1378	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
26	29	1378	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	3
26	29	1378	II/IIIa	L. Paleo./E. Archaic		Serpentes	Dorsal vertebra	1
26	29	1378	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	7
26	29	1378	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Vertebra	1
26	29	1378	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Metacarpal 2	1
26	29	1378	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	33
26	30	1419	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
26	30	1419	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
26	30	1419	II	L. Paleo.		Vertebrata	Indeterminate	23
26	31	1467	II	L. Paleo.		Mammalia (Medium)	Caudal vertebra	1
26	31	1467	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
26	31	1467	II	L. Paleo.		Small vertebrate, class ind.	Phalange	1
26	31	1467	II	L. Paleo.		Small/Medium Vertebrata	Long bone	11
26	31	1467	II	L. Paleo.		Vertebrata	Indeterminate	59
26	32	1500	II	L. Paleo.		Leporidae	Permanent tooth	1
26	32	1500	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
26	32	1500	II	L. Paleo.		Mammalia (Medium/large)	Long bone	3
26	32	1500	II	L. Paleo.		Small/Medium Vertebrata	Long bone	12
26	32	1500	II	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
26	32	1500	II	L. Paleo.		Vertebrata	Indeterminate	35
26	33	1667	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
26	33	1667	II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
26	33	1667	II	L. Paleo.		Vertebrata	Indeterminate	11
26	34	1716	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
26	34	1716	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
26	34	1716	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
26	34	1716	II	L. Paleo.		Rodentia (Small)	Permanent tooth	1
26	34	1716	II	L. Paleo.		Small vertebrate, class ind.	Proximal phalange	1
26	34	1716	II	L. Paleo.		Vertebrata	Indeterminate	27
26	35	1618	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
26	35	1618	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
26	35	1618	II	L. Paleo.		Vertebrata	Indeterminate	20

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
26	36	1629	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
26	36	1629	II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
26	36	1629	II	L. Paleo.		Vertebrata	Indeterminate	14
26	37	1821	Id/II	L. Paleo.		Mammalia (Large)	Indeterminate	1
26	37	1821	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
26	37	1821	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Fourth tarsal	1
26	37	1821	Id/II	L. Paleo.		Vertebrata	Indeterminate	10
26	38	1879	Isi-c/Id/II	L. Paleo.		Mammalia (Medium)	Tooth, perm./decid. ind.	1
26	38	1879	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
26	38	1879	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
26	38	1879	Isi-c/Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
26	38	1879	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	17
26	39	1937	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
26	39	1937	Isi-c/Id	L. Paleo.		Mammalia (Small)	Metapodial	1
26	39	1937	Isi-c/Id	L. Paleo.		Mammalia (Small/medium)	Long bone	1
26	39	1937	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	3
26	39	1937	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
26	39	1937	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	13
26	40	1960	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
26	40	1960	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
26	40	1960	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Tibia	1
26	40	1960	Isi-c	L. Paleo.		Vertebrata	Indeterminate	24
26	41	2016	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	6
26	41	2016	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	6
26	41	2016	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	8
26	41	2016	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
26	41	2016	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
26	41	2016	Isi-c	L. Paleo.		Vertebrata	Indeterminate	64
26	42	2036	Isi-c	L. Paleo.		cf. <i>Sylvilagus</i> sp.	Ulna	1
26	42	2036	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	19
26	42	2036	Isi-c	L. Paleo.		Mammalia (Small)	Radius	1
26	42	2036	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	7
26	42	2036	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	2
26	42	2036	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Metapodial	1
26	42	2036	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Metatarsal 2	1
26	42	2036	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Third tarsal	1
26	42	2036	Isi-c	L. Paleo.		Vertebrata	Indeterminate	86
26	43	2075	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	4
26	43	2075	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
26	43	2075	Icl/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	1
26	43	2075	Icl/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Metatarsal 2	1
26	43	2075	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	14
26	44	2808	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
26	44	2808	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	5
26	44	2808	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	11
26	45	2831	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
26	45	2831	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
26	46	2660	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
26	46	2660	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
26	46	2660	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
26	46	2660	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	3
26	46	2660	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	10
26	47	2662	Icl	E. Paleoindian		Mammalia (Small)	Permanent tooth	1
26	47	2662	Icl	E. Paleoindian		<i>Sylvilagus</i> sp.	Metatarsal 2	1
26	47	2662	Icl	E. Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1
26	47	2662	Icl	E. Paleoindian		Vertebrata	Indeterminate	1
26	48	2273	Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	3
26	48	2273	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	3
26	48	2273	Icl	E. Paleoindian		Vertebrata	Indeterminate	2
26	49	2602	Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
26	49	2602	Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	4
26	49	2602	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	4
26	49	2602	Icl	E. Paleoindian		Vertebrata	Indeterminate	6
26	50	2589	Isi/Icl	E. Paleoindian		Leporidae	Permanent tooth	1
26	50	2589	Isi/Icl	E. Paleoindian		Mammalia (Medium)	Proximal phalange	1
26	50	2589	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	5
26	50	2589	Isi/Icl	E. Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
26	50	2589	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
26	51	2447	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
26	51	2481	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
26	51	2483	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
26	51	2484	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
26	51	2485	Isi/Icl	E. Paleoindian		Leporidae	Permanent tooth	2
26	51	2485	Isi/Icl	E. Paleoindian		<i>Lepus californicus</i>	Permanent tooth	2
26	51	2485	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
26	51	2485	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
26	51	2485	Isi/Icl	E. Paleoindian		Mammalia (Small)	Middle phalange	1
26	51	2485	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	4
26	51	2485	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
26	51	2485	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	32
26	51	2486	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	2
26	51	2486	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	3
26	52	2509	Igl/Isi/Icl	E. Paleoindian		Mammalia (Medium)	Mandible	1
26	52	2510	Igl/Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	1
26	52	2511	Igl/Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
26	52	2516	Igl/Isi/Icl	E. Paleoindian		<i>Bison</i> sp.	Permanent tooth	1
26	52	2516	Igl/Isi/Icl	E. Paleoindian		Mammalia (Small)	Permanent tooth	1
26	52	2516	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	40
26	53	2514	Igl/Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	1
26	53	2515	Igl/Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
26	53	2569	Igl/Isi/Icl	E. Paleoindian		Mammalia (Very large)	Tooth, perm./decid. ind.	1
26	53	2569	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	1
26	53	2570	Igl/Isi/Icl	E. Paleoindian		Mammalia (Very large)	Tooth, perm./decid. ind.	1
26	53	2571	Igl/Isi/Icl	E. Paleoindian		Mammalia (Large)	Long bone	1
26	53	2572	Igl/Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	1
26	53	2574	Igl/Isi/Icl	E. Paleoindian		Leporidae	Permanent tooth	8
26	53	2574	Igl/Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	10
26	53	2574	Igl/Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
26	53	2574	Igl/Isi/Icl	E. Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1
26	53	2574	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
26	54A	2761	Igl/Isi	E. Paleoindian		Leporidae	Permanent tooth	1
26	54A	2761	Igl/Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	4
26	54A	2761	Igl/Isi	E. Paleoindian		Mammalia (Small)	Vertebra	1
26	54A	2761	Igl/Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
26	55	2779	Igl/Isi	E. Paleoindian		Testudinata	Shell fragment	1
26	56	2813	Igl	E. Paleoindian		Leporidae	Permanent tooth	1
26	59	2814	Igl	E. Paleoindian		Vertebrata	Indeterminate	1
26	60	2674	Igl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
27	15	698	IIIb	Early/M. Archaic		Mammalia (Large)	Indeterminate	2
27	15	698	IIIb	Early/M. Archaic		Mammalia (Large)	Long bone	1
27	15	698	IIIb	Early/M. Archaic		Mammalia (Medium/large)	Long bone	1
27	15	698	IIIb	Early/M. Archaic		Rodentia (Medium)	Permanent tooth	1
27	15	698	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	2
27	16	715	IIIa/b	Early/M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
27	16	715	IIIa/b	Early/M. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
27	16	715	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	7
27	17	749	IIIa/b	E. Archaic		Mammalia (Medium)	Long bone	1
27	17	749	IIIa/b	E. Archaic		Mammalia (Medium)	Middle phalange	1
27	17	749	IIIa/b	E. Archaic		Vertebrata	Indeterminate	8
27	18	137	IIIa/b	E. Archaic		Leporidae	Permanent tooth	1
27	18	137	IIIa/b	E. Archaic		Mammalia (Small)	Permanent tooth	1
27	18	137	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	3
27	18	137	IIIa/b	E. Archaic		Vertebrata	Indeterminate	14
27	19	796	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
27	19	796	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
27	19	796	IIIa	E. Archaic		Vertebrata	Indeterminate	1
27	20	865	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
27	20	865	IIIa	E. Archaic	231	Vertebrata	Indeterminate	2
27	21	887	IIIa	E. Archaic	231	<i>Kinosternon</i> sp.	Peripheral	1
27	21	887	IIIa	E. Archaic	231	Mammalia (Medium)	Femur	1
27	21	887	IIIa	E. Archaic	231	Medium/Large Vertebrata	Long bone	1
27	21	887	IIIa	E. Archaic	231	<i>Neotoma</i> sp.	Permanent tooth	1
27	21	887	IIIa	E. Archaic	231	Vertebrata	Indeterminate	29
27	22	952	IIIa	E. Archaic	225	Mammalia (Medium/large)	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
27	22	952	IIIa	E. Archaic	225	Small/Medium Vertebrata	Long bone	7
27	22	952	IIIa	E. Archaic	225	Vertebrata	Indeterminate	3
27	24-25	1027	IIIa	E. Archaic	231/245	Leporidae	Permanent tooth	1
27	24-25	1027	IIIa	E. Archaic	231/245	Mammalia (Medium)	Metapodial	1
27	24-25	1027	IIIa	E. Archaic	231/245	Mammalia (Small)	Permanent tooth	1
27	24-25	1027	IIIa	E. Archaic	231/245	Medium/Large Vertebrata	Indeterminate	6
27	24-25	1027	IIIa	E. Archaic	231/245	Small vertebrate, class ind.	Alveolar ridge fragment	1
27	24-25	1027	IIIa	E. Archaic	231/245	Small vertebrate, class ind.	Middle phalange	1
27	24-25	1027	IIIa	E. Archaic	231/245	Small/Medium Vertebrata	Long bone	19
27	24-25	1027	IIIa	E. Archaic	231/245	<i>Sylvilagus</i> sp.	Permanent tooth	1
27	24-25	1027	IIIa	E. Archaic	231/245	Testudinata	Shell fragment	1
27	24-25	1027	IIIa	E. Archaic	231/245	Vertebrata	Indeterminate	90
27	25	1261	IIIa	E. Archaic	231/245	Small vertebrate, class ind.	Vertebra	1
27	25	1261	IIIa	E. Archaic	231/245	Vertebrata	Indeterminate	4
27	26	1289	II/IIIa	L. Paleo./E. Archaic	231/245	Colubridae	Dorsal vertebra	1
27	26	1289	II/IIIa	L. Paleo./E. Archaic	231/245	<i>Geomys</i> sp.	Permanent tooth	1
27	26	1289	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
27	26	1289	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Small)	Astragalus	1
27	26	1289	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Small)	Permanent tooth	1
27	26	1289	II/IIIa	L. Paleo./E. Archaic	231/245	Small/Medium Vertebrata	Long bone	12
27	26	1289	II/IIIa	L. Paleo./E. Archaic	231/245	<i>Sylvilagus</i> sp.	Permanent tooth	2
27	26	1289	II/IIIa	L. Paleo./E. Archaic	231/245	Vertebrata	Indeterminate	27
27	27A	1376	II/IIIa	L. Paleo./E. Archaic		<i>Canis</i> sp.	Permanent tooth	1
27	27A	1376	II/IIIa	L. Paleo./E. Archaic		Colubridae	Dorsal vertebra	1
27	27A	1376	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	2
27	27A	1376	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Permanent tooth	1
27	27A	1376	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Alveolar ridge fragment	1
27	27A	1376	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	10
27	27A	1376	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
27	27A	1376	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
27	27A	1376	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	34
27	27B-2	1767	II/IIIa	L. Paleo./E. Archaic	240	Small/Medium Vertebrata	Long bone	1
27	27B-2	1767	II/IIIa	L. Paleo./E. Archaic	240	Vertebrata	Indeterminate	16
27	28A	1456	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
27	28A	1456	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	38
27	28B	1433	II/IIIa	L. Paleo./E. Archaic	240	Mammalia (Medium/large)	Long bone	1
27	30-29	1610	II	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
27	30-29	1610	II	L. Paleo./E. Archaic		Rodentia (Medium)	Permanent tooth	1
27	30-29	1610	II	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
27	30-29	1610	II	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
27	30-29	1610	II	L. Paleo./E. Archaic		Vertebrata	Indeterminate	28
27	30A	1617	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
27	30A	1617	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
27	30A	1617	II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
27	30B	1623	II	L. Paleo.	240	Small/Medium Vertebrata	Long bone	6
27	30B	1623	II	L. Paleo.	240	Vertebrata	Indeterminate	16
27	31	1809	II	L. Paleo.		Mammalia (Medium)	Ulna	1
27	31	1809	II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
27	31	1809	II	L. Paleo.		Vertebrata	Indeterminate	9
27	32	1835	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
27	32	1835	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
27	32	1835	II	L. Paleo.		Mammalia (Small)	Cranium	1
27	32	1835	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
27	32	1835	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
27	32	1835	II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
27	32	1835	II	L. Paleo.		Vertebrata	Indeterminate	30
27	33	1902	II	L. Paleo.		cf. <i>Sylvilagus</i> sp.	Ulna	2
27	33	1902	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
27	33	1902	II	L. Paleo.		Small/Medium Vertebrata	Long bone	9
27	33	1902	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
27	33	1902	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metatarsal 2	1
27	33	1902	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metatarsal 3	1
27	33	1902	II	L. Paleo.		Vertebrata	Indeterminate	33
27	34	1994	II	L. Paleo.		Leporidae	Permanent tooth	1
27	34	1994	II	L. Paleo.		Mammalia (Small)	Humerus	1
27	34	1994	II	L. Paleo.		Rodentia (Medium)	Permanent tooth	1
27	34	1994	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
27	34	1994	II	L. Paleo.		Vertebrata	Indeterminate	48
27	35	2015	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
27	35	2015	II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
27	35	2015	II	L. Paleo.		Vertebrata	Indeterminate	41
27	36	2642	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
27	36	2642	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
27	36	2642	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
27	36	2642	II	L. Paleo.		Vertebrata	Indeterminate	1
27	37	2658	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	5
27	37	2658	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
27	37	2658	Id/II	L. Paleo.		Vertebrata	Indeterminate	5
27	38	2800	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
27	38	2800	Id/II	L. Paleo.		Vertebrata	Indeterminate	10
27	39	2605	Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
27	39	2605	Id	L. Paleo.		<i>Neotoma</i> sp.	Permanent tooth	1
27	39	2605	Id	L. Paleo.		Small/Medium Vertebrata	Long bone	5
27	39	2605	Id	L. Paleo.		Testudinata	Shell fragment	3
27	39	2605	Id	L. Paleo.		Vertebrata	Indeterminate	15
27	39	2684	Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
27	39	2684	Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
27	39	2684	Id	L. Paleo.		Vertebrata	Indeterminate	4
27	40	2663	Isi-c/Id	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
27	40	2663	Isi-c/Id	L. Paleo.		Leporidae	Metatarsal 3	1
27	40	2663	Isi-c/Id	L. Paleo.		Leporidae	Permanent tooth	1
27	40	2663	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
27	40	2663	Isi-c/Id	L. Paleo.		Mammalia (Small)	Radius	2
27	40	2663	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	9
27	40	2663	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Middle phalange	1
27	40	2663	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Proximal phalange	1
27	40	2663	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	29
27	41	2652	Isi-c	L. Paleo.		Mammalia (Medium)	Proximal phalange	1
27	41	2652	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	10
27	41	2652	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
27	41	2652	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	4
27	41	2652	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Axis	1
27	41	2652	Isi-c	L. Paleo.		Vertebrata	Indeterminate	13
27	42	2851	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
27	42	2851	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
27	42	2851	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	8
27	42	2851	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
27	42	2851	Isi-c	L. Paleo.		Vertebrata	Indeterminate	23
27	43	2812	Icl/Isi-c	Paleoindian		Mammalia (Large)	Indeterminate	1
27	43	2812	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
27	43	2812	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Vertebra	1
27	43	2812	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	11
27	44	2821	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
27	44	2821	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	6
27	44	2821	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	6
27	45	2603	Icl	E. Paleoindian		Vertebrata	Indeterminate	5
27	46	2798	Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	3
27	46	2798	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	8
27	46	2798	Icl	E. Paleoindian		Vertebrata	Indeterminate	13
27	47	2766	Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	2
27	47	2766	Icl	E. Paleoindian		Vertebrata	Indeterminate	5
27	48	2763	Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
27	48	2763	Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	2
27	48	2763	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	3
27	48	2763	Icl	E. Paleoindian		Vertebrata	Indeterminate	4
27	49	2303	Icl	E. Paleoindian		Vertebrata	Indeterminate	3
27	49	2633	Icl	E. Paleoindian		Mammalia (Small)	Permanent tooth	3
27	49	2633	Icl	E. Paleoindian		Mammalia (Small/medium)	Alveolar ridge fragment	1
27	49	2633	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	4
27	49	2633	Icl	E. Paleoindian		Vertebrata	Indeterminate	11
27	50	2435	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Long bone	1
27	50	2592	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	5
27	50	2592	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	8
27	51	2624	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
27	51	2624	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
27	51	2624	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
27	51A	2625	Isi/Icl	E. Paleoindian		Leporidae	Permanent tooth	2
27	51B	2445	Isi/Icl	E. Paleoindian	262	Mammalia (Medium/large)	Indeterminate	7
27	51B	2451	Isi/Icl	E. Paleoindian	262	Mammalia (Large)	Indeterminate	1
27	51B	2453	Isi/Icl	E. Paleoindian	262	Medium/Large Vertebrata	Indeterminate	1
27	51B	2454	Isi/Icl	E. Paleoindian	262	Mammalia (Medium/large)	Indeterminate	1
27	51B	2457	Isi/Icl	E. Paleoindian	262	Medium/Large Vertebrata	Indeterminate	1
27	51B	2535	Isi/Icl	E. Paleoindian	262	Mammalia (Large)	Long bone	1
27	51B	2538	Isi/Icl	E. Paleoindian	262	Medium/Large Vertebrata	Indeterminate	7
27	52	2621	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
27	52A	2622	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	3
27	52A	2622	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	1
27	52B	2463	Isi/Icl	E. Paleoindian	262	Medium/Large Vertebrata	Indeterminate	1
27	52B	2539	Isi/Icl	E. Paleoindian	262	Leporidae	Permanent tooth	3
27	52B	2539	Isi/Icl	E. Paleoindian	262	Medium/Large Vertebrata	Indeterminate	1
27	52B	2539	Isi/Icl	E. Paleoindian	262	Small/Medium Vertebrata	Long bone	1
27	52B	2539	Isi/Icl	E. Paleoindian	262	Vertebrata	Indeterminate	25
27	53	2506	Igl/Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
27	53	2506	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	3
27	53B	2534	Igl/Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
27	53B	2534	Igl/Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
27	53B	2534	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	5
27	54B	2526	Igl/Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	3
27	54B	2526	Igl/Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
27	55A	2573	Igl	E. Paleoindian		Vertebrata	Indeterminate	2
27	57	2645	Igl	E. Paleoindian		Leporidae	Permanent tooth	1
27	57	2645	Igl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	8
27	58	2657	Igl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
27	58	2657	Igl	E. Paleoindian		Vertebrata	Indeterminate	1
27	60	2677	Igl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
27	60	2677	Igl	E. Paleoindian		Vertebrata	Indeterminate	1
28	15	701	IIIb	Early/M. Archaic		Medium/Large Vertebrata	Indeterminate	1
28	15	701	IIIb	Early/M. Archaic		Vertebrata	Indeterminate	2
28	16	729	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	14
28	17	753	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	7
28	17	753	IIIa/b	E. Archaic		Mammalia (Medium/large)	Long bone	3
28	17	753	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	2
28	17	753	IIIa/b	E. Archaic		Vertebrata	Indeterminate	29
28	18	789	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
28	18	789	IIIa/b	E. Archaic		Testudinata	Shell fragment	1
28	18	789	IIIa/b	E. Archaic		Vertebrata	Indeterminate	8
28	19	831	IIIa	E. Archaic	231	Mammalia (Micro)	Proximal phalange	1
28	19	831	IIIa	E. Archaic	231	Mammalia (Micro)	Tibia	1
28	19	831	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
28	19	831	IIIa	E. Archaic	231	Vertebrata	Indeterminate	13
28	20	885	IIIa	E. Archaic	231	<i>Geomys</i> sp.	Permanent tooth	1
28	20	885	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
28	20	885	IIIa	E. Archaic	231	Mammalia (Small)	Metapodial	1
28	20	885	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	5
28	20	885	IIIa	E. Archaic	231	Vertebrata	Indeterminate	32
28	21	979	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
28	21	979	IIIa	E. Archaic	231	Medium/Large Vertebrata	Long bone	2
28	21	979	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	7
28	21	979	IIIa	E. Archaic	231	Vertebrata	Indeterminate	13
28	22	1025	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	5
28	22	1025	IIIa	E. Archaic	231	Mammalia (Medium/large)	Long bone	1
28	22	1025	IIIa	E. Archaic	231	Mammalia (Small)	Permanent tooth	1
28	22	1025	IIIa	E. Archaic	231	<i>Neotoma</i> sp.	Permanent tooth	1
28	22	1025	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	7
28	22	1025	IIIa	E. Archaic	231	Vertebrata	Indeterminate	52
28	22	1324	IIIa	E. Archaic	231	Vertebrata	Indeterminate	1
28	24	1488	IIIa	E. Archaic	245	Leporidae	Permanent tooth	1
28	24	1488	IIIa	E. Archaic	245	Small/Medium Vertebrata	Long bone	6
28	24	1488	IIIa	E. Archaic	245	Testudinata	Shell fragment	1
28	24	1488	IIIa	E. Archaic	245	Vertebrata	Indeterminate	1
28	24	1957	IIIa	E. Archaic	245	Artiodactyla	Tooth, perm./decid. ind.	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
28	24	1957	IIIa	E. Archaic	245	Small/Medium Vertebrata	Long bone	5
28	24	1957	IIIa	E. Archaic	245	Vertebrata	Indeterminate	5
28	24-27	1764	IIIa	E. Archaic	245	Vertebrata	Indeterminate	1
28	25	1579	IIIa	E. Archaic	245	Leporidae	Permanent tooth	1
28	25	1579	IIIa	E. Archaic	245	<i>Lepus californicus</i>	Third tarsal	1
28	25	1579	IIIa	E. Archaic	245	Mammalia (Medium/large)	Long bone	3
28	25	1579	IIIa	E. Archaic	245	Small/Medium Vertebrata	Long bone	9
28	25	1579	IIIa	E. Archaic	245	Testudinata	Shell fragment	1
28	25	1579	IIIa	E. Archaic	245	Vertebrata	Indeterminate	17
28	25	1978	IIIa	E. Archaic	245	Mammalia (Medium/large)	Indeterminate	3
28	25	1978	IIIa	E. Archaic	245	Mammalia (Small)	Metapodial	1
28	25	1978	IIIa	E. Archaic	245	<i>Sciurus</i> sp.	Humerus	1
28	25	1978	IIIa	E. Archaic	245	Vertebrata	Indeterminate	29
28	26	1655	II/IIIa	L. Paleo./E. Archaic	245	<i>Geomys</i> sp.	Permanent tooth	1
28	26	1655	II/IIIa	L. Paleo./E. Archaic	245	Leporidae	Permanent tooth	1
28	26	1655	II/IIIa	L. Paleo./E. Archaic	245	Medium/Large Vertebrata	Indeterminate	2
28	26	1655	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	10
28	26	1655	II/IIIa	L. Paleo./E. Archaic	245	<i>Sylvilagus</i> sp.	Third tarsal	1
28	26	1655	II/IIIa	L. Paleo./E. Archaic	245	Vertebrata	Indeterminate	33
28	26	2008	II/IIIa	L. Paleo./E. Archaic	245	Leporidae	Permanent tooth	1
28	26	2008	II/IIIa	L. Paleo./E. Archaic	245	Mammalia (Small)	Radius	1
28	26	2008	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	2
28	26	2008	II/IIIa	L. Paleo./E. Archaic	245	Testudinata	Shell fragment	2
28	26	2008	II/IIIa	L. Paleo./E. Archaic	245	Vertebrata	Indeterminate	15
28	27A	1627	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	5
28	27A	1627	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
28	27A	1627	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
28	27B	781	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	6
28	27B	781	II/IIIa	L. Paleo./E. Archaic	245	Vertebrata	Indeterminate	9
28	27B	1625	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	2
28	27B	1625	II/IIIa	L. Paleo./E. Archaic	245	Vertebrata	Indeterminate	2
28	27B	2091	II/IIIa	L. Paleo./E. Archaic	245	Mammalia (Small)	Vertebra	1
28	27B	2091	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	2
28	27B	2091	II/IIIa	L. Paleo./E. Archaic	245	Vertebrata	Indeterminate	10
28	28	2095	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	1
28	28	2095	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
28	28	2095	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
28	28	2095	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Rib	1
28	28	2095	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Vertebra	1
28	28	2095	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	5
28	28	2095	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	21
28	28A	1788	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
28	28A	1788	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
28	28A	1788	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	9
28	28B	1798	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	4
28	28B	1798	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
28	29	2102	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Vertebra	1
28	29	2102	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
28	29A	1890	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Ulna	1
28	29A	1890	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	5
28	29A	1890	II/IIIa	L. Paleo./E. Archaic		Squamata	Dorsal vertebra	1
28	29A	1890	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	9
28	29B	1894	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
28	29B	1894	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
28	30A	1899	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Calcaneus	1
28	30A	1899	II/IIIa	L. Paleo./E. Archaic		Osteichthyes (Small)	Sagitta otolith	1
28	30A	1899	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
28	30A	1899	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	10
28	30A	2121	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Metapodial	1
28	30A	2121	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	10
28	30A	2121	II/IIIa	L. Paleo./E. Archaic		Testudinata	Carapace fragment ind.	1
28	30A	2121	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	39
28	30B	2120	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Femur	1
28	30B	2120	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
28	31A	2073	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
28	31A	2073	II	L. Paleo.		Vertebrata	Indeterminate	3
28	31A	2124	II	L. Paleo.		<i>Lepus californicus</i>	Third tarsal	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
28	31A	2124	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
28	31A	2124	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
28	31A	2124	II	L. Paleo.		Vertebrata	Indeterminate	12
28	31B	2071	II	L. Paleo.	254	Small/Medium Vertebrata	Long bone	3
28	31B	2123	II	L. Paleo.	254	Mammalia (Medium/large)	Indeterminate	4
28	31B	2123	II	L. Paleo.	254	Small/Medium Vertebrata	Long bone	2
28	31B	2123	II	L. Paleo.	254	Vertebrata	Indeterminate	8
28	32	2130	II	L. Paleo.		cf. Leporidae	Alveolar ridge fragment	1
28	32	2130	II	L. Paleo.		cf. Leporidae	Metapodial	1
28	32	2130	II	L. Paleo.		<i>Lepus californicus</i>	Humerus	1
28	32	2130	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	6
28	32	2130	II	L. Paleo.		Mammalia (Small)	Humerus	1
28	32	2130	II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
28	32	2130	II	L. Paleo.		Vertebrata	Indeterminate	50
28	33	2152	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	5
28	33	2152	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
28	33	2152	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
28	33	2152	II	L. Paleo.		Small/Medium Vertebrata	Long bone	12
28	33	2152	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
28	33	2152	II	L. Paleo.		<i>Sylvilagus</i> sp.	Mandible	1
28	33	2152	II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
28	33	2152	II	L. Paleo.		Vertebrata	Indeterminate	35
28	34	2161	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
28	34	2161	II	L. Paleo.		Mammalia (Micro)	Permanent tooth	1
28	34	2161	II	L. Paleo.		Mammalia (Small)	Caudal vertebra	1
28	34	2161	II	L. Paleo.		Mammalia (Small/medium)	Permanent tooth	1
28	34	2161	II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
28	34	2161	II	L. Paleo.		Vertebrata	Indeterminate	4
28	35	2268	II	L. Paleo.		cf. Leporidae	Metapodial	1
28	35	2268	II	L. Paleo.		Leporidae	Calcaneus	1
28	35	2268	II	L. Paleo.		Mammalia (Medium)	Middle phalange	1
28	35	2268	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
28	35	2268	II	L. Paleo.		Serpentes	Dorsal vertebra	1
28	35	2268	II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
28	35	2268	II	L. Paleo.		Vertebrata	Indeterminate	25
28	36	2267	Id/II	L. Paleo.		Vertebrata	Indeterminate	10
28	37	2823	Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
28	37	2823	Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
28	37	2823	Id	L. Paleo.		Small/Medium Vertebrata	Long bone	4
28	37	2823	Id	L. Paleo.		Testudinata	Shell fragment	1
28	37	2823	Id	L. Paleo.		Vertebrata	Indeterminate	8
28	38	2653	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
28	38	2653	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	1
28	38	2653	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	4
28	39	2789	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Long bone	2
28	39	2789	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
28	39	2789	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	1
28	39	2789	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	10
28	40	2765	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	4
28	40	2765	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
28	40	2765	Isi-c	L. Paleo.		Vertebrata	Indeterminate	3
28	41	2294	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
28	41	2338	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	5
28	41	2338	Isi-c	L. Paleo.		Vertebrata	Indeterminate	18
28	42	2738	Isi-c	L. Paleo.		<i>Lepus californicus</i>	Second tarsal	1
28	42	2738	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	1
28	42	2738	Isi-c	L. Paleo.		Vertebrata	Indeterminate	15
28	43	2759	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
28	43	2759	Isi-c	L. Paleo.		Serpentes	Dorsal vertebra	1
28	43	2759	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
28	43	2759	Isi-c	L. Paleo.		Vertebrata	Indeterminate	15
28	44	2460	Icl/Isi-c	Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1
28	44	2460	Icl/Isi-c	Paleoindian		Mammalia (Small)	Distal phalange	1
28	44	2460	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
28	44	2460	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	15
28	45	2630	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
28	45	2630	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
28	45	2630	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	7
28	46	2626	Icl/Isi-c	Paleoindian		Mammalia (Large)	Indeterminate	1
28	46	2626	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	9
28	46	2626	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	11
28	47	2776	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
28	47	2776	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	7
28	47	2776	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	20
28	48	2593	Icl/Isi-c	Paleoindian		Mammalia (Small)	Metapodial	1
28	48	2593	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	3
28	48	2593	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	8
28	48	2593	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	7
28	49	2163	Icl	E. Paleoindian		Leporidae	Permanent tooth	1
28	49	2163	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	13
28	49	2163	Icl	E. Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1
28	49	2163	Icl	E. Paleoindian		Vertebrata	Indeterminate	13
28	50	2585	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
28	50	2585	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
28	50	2585	Isi/Icl	E. Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	1
28	50	2597	Isi/Icl	E. Paleoindian		Mammalia (Medium)	Long bone	1
28	50	2597	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
28	50	2597	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	5
28	51	2591	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
28	51	2591	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
28	52	2588	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	25
28	52	2588	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
28	52	2588	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
28	52	2588	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	14
28	53	2502	Isi/Icl	E. Paleoindian		Leporidae	Permanent tooth	1
28	53	2502	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
28	53	2502	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
28	54A	2587	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
28	54B	2771	Igl/Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	2
28	54B	2771	Igl/Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	15
28	54B	2771	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	1
28	55	2810	Igl/Isi	E. Paleoindian		Vertebrata	Indeterminate	1
28	59	2680	Igl	E. Paleoindian		Vertebrata	Indeterminate	2
30	14	686	IIIa	E. Archaic		Aves (Small)	Distal phalange	1
30	14	686	IIIa	E. Archaic		Mammalia (Medium)	Alveolar ridge fragment	1
30	14	686	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	5
30	14	686	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	2
30	14	686	IIIa	E. Archaic		Mammalia (Micro)	Permanent tooth	1
30	14	686	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	7
30	14	686	IIIa	E. Archaic		Squamata	Vertebra	1
30	14	686	IIIa	E. Archaic		Testudinata	Shell fragment	1
30	14	686	IIIa	E. Archaic		Vertebrata	Indeterminate	31
30	15	716	IIIa	E. Archaic		Mammalia (Medium)	Proximal phalange	1
30	15	716	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
30	15	716	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	3
30	15	716	IIIa	E. Archaic		Mammalia (Small)	Proximal phalange	1
30	15	716	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	7
30	15	716	IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
30	15	716	IIIa	E. Archaic		Testudinata	Shell fragment	1
30	15	716	IIIa	E. Archaic		Vertebrata	Indeterminate	34
30	16	744	IIIa	E. Archaic		Mammalia (Micro)	Metapodial	1
30	16	744	IIIa	E. Archaic		Mammalia (Small)	Middle phalange	1
30	16	744	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	3
30	16	744	IIIa	E. Archaic		<i>Trionyx</i> sp.	Shell fragment	1
30	16	744	IIIa	E. Archaic		Vertebrata	Indeterminate	7
30	17	765	IIIa	E. Archaic		Testudinata	Shell fragment	3
30	17	765	IIIa	E. Archaic		Vertebrata	Indeterminate	2
30	19	862	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
30	19	862	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
30	19	862	II/IIIa	L. Paleo./E. Archaic		Rodentia (Medium)	Permanent tooth	1
30	19	862	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
30	19	862	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	4
30	20A	904	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Fourth tarsal	1
30	20A	904	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
30	20A	904	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Humerus	1
30	20A	904	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	2
30	20A	904	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	13
30	20A	904	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
30	20A	904	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	43
30	21A	933	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
30	21A	933	II	L. Paleo.		Leporidae	Tooth, perm./decid. ind.	1
30	21A	933	II	L. Paleo.		<i>Lepus californicus</i>	Permanent tooth	2
30	21A	933	II	L. Paleo.		Mammalia (Large)	Indeterminate	1
30	21A	933	II	L. Paleo.		Mammalia (Medium)	Long bone	1
30	21A	933	II	L. Paleo.		Mammalia (Medium)	Metapodial	1
30	21A	933	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
30	21A	933	II	L. Paleo.		Medium vertebrate, class ind.	Phalange	1
30	21A	933	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
30	21A	933	II	L. Paleo.		Squamata	Dorsal vertebra	1
30	21A	933	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metacarpal 2	1
30	21A	933	II	L. Paleo.		Vertebrata	Indeterminate	28
30	21B	941	II	L. Paleo.	227	Leporidae	Permanent tooth	1
30	21B	941	II	L. Paleo.	227	Mammalia (Micro)	Femur	1
30	21B	941	II	L. Paleo.	227	Medium/Large Vertebrata	Long bone	2
30	21B	941	II	L. Paleo.	227	Serpentes	Dorsal vertebra	1
30	21B	941	II	L. Paleo.	227	Small vertebrate, class ind.	Proximal phalange	1
30	21B	941	II	L. Paleo.	227	Small/Medium Vertebrata	Long bone	7
30	21B	941	II	L. Paleo.	227	Vertebrata	Indeterminate	24
30	22A	962	II	L. Paleo.		Mammalia (Small/medium)	Alveolar ridge fragment	1
30	22A	962	II	L. Paleo.		Small vertebrate, class ind.	Proximal phalange	1
30	22A	962	II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
30	22A	962	II	L. Paleo.		<i>Sylvilagus</i> sp.	Scapula	1
30	22A	962	II	L. Paleo.		Vertebrata	Indeterminate	21
30	22B	988	II	L. Paleo.	227	<i>Lepus californicus</i>	Permanent tooth	1
30	22B	988	II	L. Paleo.	227	Mammalia (Micro)	Humerus	1
30	22B	988	II	L. Paleo.	227	Small vertebrate, class ind.	Proximal phalange	1
30	22B	988	II	L. Paleo.	227	Small/Medium Vertebrata	Long bone	3
30	22B	988	II	L. Paleo.	227	<i>Sylvilagus</i> sp.	Calcaneus	1
30	22B	988	II	L. Paleo.	227	Vertebrata	Indeterminate	25
30	23	1022	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
30	24	1029	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
30	24	1029	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
30	24	1029	II	L. Paleo.		Mammalia (Small)	Femur	1
30	24	1029	II	L. Paleo.		Mammalia (Small)	Radius	1
30	24	1029	II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
30	24	1029	II	L. Paleo.		Vertebrata	Indeterminate	30
30	25	1038	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
30	25	1038	II	L. Paleo.		Mammalia (Small)	Proximal phalange	1
30	25	1038	II	L. Paleo.		Vertebrata	Indeterminate	11
30	26	1121	II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
30	27	1154	II	L. Paleo.		Mammalia (Micro)	Humerus	1
30	27	1154	II	L. Paleo.		Mammalia (Micro)	Permanent tooth	1
30	27	1154	II	L. Paleo.		Small/Medium Vertebrata	Long bone	5
30	27	1154	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metacarpal	1
30	27	1154	II	L. Paleo.		Vertebrata	Indeterminate	9
30	28	1070	Isi-c/II	L. Paleo.		Mammalia (Medium)	Permanent tooth	1
30	28	1070	Isi-c/II	L. Paleo.		Small vertebrate, class ind.	Middle phalange	1
30	28	1070	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
30	28	1070	Isi-c/II	L. Paleo.		Testudinata	Shell fragment	2
30	28	1070	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	24
30	29B	830	Isi-c/II	L. Paleo.	234	Mammalia (Large)	Cranium	1
30	29B	830	Isi-c/II	L. Paleo.	234	Mammalia (Medium/large)	Long bone	1
30	29B	830	Isi-c/II	L. Paleo.	234	Small/Medium Vertebrata	Long bone	1
30	29B	830	Isi-c/II	L. Paleo.	234	Vertebrata	Indeterminate	10
30	30	1200	Isi-c/II	L. Paleo.	234	<i>Geomys</i> sp.	Permanent tooth	1
30	30	1200	Isi-c/II	L. Paleo.	234	Mammalia (Small)	Permanent tooth	1
30	30	1200	Isi-c/II	L. Paleo.	234	Small vertebrate, class ind.	Phalange	1
30	30	1200	Isi-c/II	L. Paleo.	234	Small/Medium Vertebrata	Long bone	4
30	30	1200	Isi-c/II	L. Paleo.	234	Vertebrata	Indeterminate	24
30	31B	1217	Isi-c/II	L. Paleo.	234	Mammalia (Small)	Permanent tooth	1
30	31B	1217	Isi-c/II	L. Paleo.	234	Small/Medium Vertebrata	Long bone	11

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
30	31B	1217	Isi-c/II	L. Paleo.	234	Vertebrata	Indeterminate	31
30	32	1250	Isi-c	L. Paleo.		Mammalia (Medium)	Metapodial	1
30	32	1250	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	10
30	32	1250	Isi-c	L. Paleo.		Vertebrata	Indeterminate	52
30	33A	1294	Isi-c	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
30	33A	1294	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
30	33A	1294	Isi-c	L. Paleo.		Medium vertebrate, class ind.	Distal phalange	3
30	33A	1294	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	12
30	33A	1294	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
30	33A	1294	Isi-c	L. Paleo.		Vertebrata	Indeterminate	84
30	33A	1294	Isi-c	L. Paleo.		Viperidae	Dorsal vertebra	1
30	33A	1314	Isi-c	L. Paleo.		Mammalia (Very large)	Long bone	1
30	34A	1348	Isi-c	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
30	34A	1348	Isi-c	L. Paleo.		Medium vertebrate, class ind.	Middle phalange	1
30	34A	1348	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	6
30	34A	1348	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	6
30	34A	1348	Isi-c	L. Paleo.		Squamata	Dorsal vertebra	1
30	34A	1348	Isi-c	L. Paleo.		Vertebrata	Indeterminate	35
30	34B	1385	Isi-c	L. Paleo.	238	Mammalia (Large)	Tooth, perm./decid. ind.	1
30	34B	1385	Isi-c	L. Paleo.	238	Medium/Large Vertebrata	Indeterminate	1
30	34B	1385	Isi-c	L. Paleo.	238	Small/Medium Vertebrata	Long bone	6
30	34B	1385	Isi-c	L. Paleo.	238	Vertebrata	Indeterminate	27
30	35	1426	Isi/Isi-c	Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1
30	35	1426	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	5
30	35	1426	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
30	35	1426	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
30	35	1426	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	31
30	37	1549	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
30	37	1549	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
30	37	1549	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
30	37	1549	Isi/Isi-c	Paleoindian		Testudinata	Shell fragment	1
30	37	1549	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	8
30	38	1597	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	2
30	38	1597	Isi	E. Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
30	38	1597	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	8
30	38	1597	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
30	38	1597	Isi	E. Paleoindian		Vertebrata	Indeterminate	22
30	40	1740	Isi	E. Paleoindian		Serpentes	Dorsal vertebra	1
30	40	1740	Isi	E. Paleoindian		Vertebrata	Indeterminate	3
30	42	1837	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
30	42	1837	Isi	E. Paleoindian		Vertebrata	Indeterminate	3
30	43	1869	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
32	14	683	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	9
32	14	683	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	10
32	14	683	IIIa	E. Archaic		Testudinata	Carapace fragment ind.	1
32	14	683	IIIa	E. Archaic		Vertebrata	Indeterminate	4
32	15	702	IIIa	E. Archaic		Leporidae	Scapula	1
32	15	702	IIIa	E. Archaic		<i>Lepus californicus</i>	Humerus	1
32	15	702	IIIa	E. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
32	15	702	IIIa	E. Archaic		Mammalia (Medium)	Middle phalange	1
32	15	702	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
32	15	702	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	3
32	15	702	IIIa	E. Archaic		Vertebrata	Indeterminate	14
32	16	717	IIIa	E. Archaic		Kinosternidae	Peripheral	1
32	16	717	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	8
32	16	717	IIIa	E. Archaic		Serpentes	Dorsal vertebra	1
32	16	717	IIIa	E. Archaic		Vertebrata	Indeterminate	11
32	17	743	IIIa	E. Archaic		Mammalia (Micro)	Long bone	1
32	17	743	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	3
32	17	743	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	2
32	17	743	IIIa	E. Archaic		Vertebrata	Indeterminate	10
32	18	772	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	10
32	18	772	IIIa	E. Archaic		Mammalia (Small)	Alveolar ridge fragment	1
32	18	772	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	6
32	18	772	IIIa	E. Archaic		Testudinata	Shell fragment	2
32	18	772	IIIa	E. Archaic		Vertebrata	Indeterminate	25
32	19	863	IIIa	E. Archaic		Mammalia (Small)	Proximal phalange	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
32	19	863	IIIa	E. Archaic		Mammalia (Small)	Tooth, perm./decid. ind.	1
32	19	863	IIIa	E. Archaic		Small vertebrate, class ind.	Distal phalange	1
32	19	863	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	5
32	19	863	IIIa	E. Archaic		Vertebrata	Indeterminate	16
32	20A	908	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
32	20A	908	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	1
32	20A	908	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
32	20A	908	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
32	20A	908	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Permanent tooth	2
32	20A	908	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Tooth, perm./decid. ind.	2
32	20A	908	II/IIIa	L. Paleo./E. Archaic		Medium vertebrate, class ind.	Proximal phalange	1
32	20A	908	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	19
32	20A	908	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 2	1
32	20A	908	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
32	20A	908	II/IIIa	L. Paleo./E. Archaic		Testudinata	Humerus	1
32	20A	908	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
32	20A	908	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	82
32	20B	915	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
32	20B	915	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
32	21	922	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	3
32	21	922	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
32	21	922	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Caudal vertebra	1
32	21	922	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
32	21	922	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Tooth, perm./decid. ind.	1
32	21	922	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
32	21	922	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	20
32	22	932	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Cranium	1
32	22	932	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	2
32	22	932	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
32	22	932	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Tibia	1
32	22	932	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Epiphysis	1
32	22	932	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Humerus	1
32	22	932	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
32	22	932	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Ulna	1
32	22	932	II/IIIa	L. Paleo./E. Archaic		Medium vertebrate, class ind.	Vertebra	1
32	22	932	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	8
32	22	932	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
32	22	932	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	41
32	23	951	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	1
32	23	951	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
32	23	951	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	3
32	23	951	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	15
32	23	951	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Metacarpal 3	1
32	23	951	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
32	23	951	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	40
32	24	973	II	L. Paleo.		cf. <i>Sylvilagus</i> sp.	Femur	1
32	24	973	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
32	24	973	II	L. Paleo.		Leporidae	Permanent tooth	1
32	24	973	II	L. Paleo.		Mammalia (Large)	Long bone	1
32	24	973	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
32	24	973	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
32	24	973	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
32	24	973	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
32	24	973	II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
32	24	973	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
32	24	973	II	L. Paleo.		Testudinata	Shell fragment	1
32	24	973	II	L. Paleo.		Vertebrata	Indeterminate	12
32	25	984	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
32	25	984	II	L. Paleo.		Small/Medium Vertebrata	Long bone	11
32	25	984	II	L. Paleo.		Vertebrata	Indeterminate	12
32	26	1007	II	L. Paleo.		Mammalia (Small)	Proximal phalange	1
32	26	1007	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
32	26	1007	II	L. Paleo.		Vertebrata	Indeterminate	21
32	26	1007	II	L. Paleo.		Viperidae	Dorsal vertebra	1
32	27	1061	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
32	27	1061	II	L. Paleo.		<i>Odocoileus</i> sp.	Antler	1
32	27	1061	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
32	27	1061	II	L. Paleo.		Vertebrata	Indeterminate	9
32	28A	1213	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
32	28A	1213	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
32	28A	1213	Isi-c/II	L. Paleo.		Mammalia (Small)	Epiphysis	1
32	28A	1213	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	14
32	28A	1213	Isi-c/II	L. Paleo.		<i>Sylvilagus</i> sp.	Central tarsal bone	1
32	28A	1213	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	29
32	29A	1263	Isi-c/II	L. Paleo.		Leporidae	Permanent tooth	1
32	29A	1263	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
32	29A	1263	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	30
32	29B	1259	Isi-c/II	L. Paleo.	235	Small/Medium Vertebrata	Long bone	5
32	29B	1259	Isi-c/II	L. Paleo.	235	Vertebrata	Indeterminate	3
32	30	1291	Isi-c/II	L. Paleo.		Leporidae	Permanent tooth	1
32	30	1291	Isi-c/II	L. Paleo.		Mammalia (Large)	Indeterminate	1
32	30	1291	Isi-c/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
32	30	1291	Isi-c/II	L. Paleo.		Mammalia (Micro)	Tooth, perm./decid. ind.	1
32	30	1291	Isi-c/II	L. Paleo.		Mammalia (Small)	Metapodial	1
32	30	1291	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
32	30	1291	Isi-c/II	L. Paleo.		Small vertebrate, class ind.	Phalange	1
32	30	1291	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	20
32	30	1291	Isi-c/II	L. Paleo.		<i>Sylvilagus</i> sp.	Tibia	1
32	30	1291	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	38
32	31	1305	Isi-c/Id/II	L. Paleo.		Leporidae	Permanent tooth	1
32	31	1305	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
32	31	1305	Isi-c/Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	4
32	31	1305	Isi-c/Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
32	31	1305	Isi-c/Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	5
32	31	1305	Isi-c/Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Central tarsal bone	1
32	31	1305	Isi-c/Id/II	L. Paleo.		Vertebrata	Indeterminate	17
32	32	1317	Isi-c/Id	L. Paleo.		Leporidae	Permanent tooth	2
32	32	1317	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	14
32	32	1317	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	2
32	32	1317	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
32	32	1317	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	5
32	32	1317	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	18
32	32	1317	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Radius	1
32	32	1317	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	73
32	33	1397	Isi-c/Id	L. Paleo.		Colubridae	Dorsal vertebra	1
32	33	1397	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Vertebra	1
32	33	1397	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	10
32	33	1397	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
32	33	1397	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
32	33	1397	Isi-c/Id	L. Paleo.		Mammalia (Small)	Permanent tooth	1
32	33	1397	Isi-c/Id	L. Paleo.		Mammalia (Small)	Tibia	1
32	33	1397	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	5
32	33	1397	Isi-c/Id	L. Paleo.		<i>Neotoma</i> sp.	Permanent tooth	1
32	33	1397	Isi-c/Id	L. Paleo.		Serpentes	Dorsal vertebra	1
32	33	1397	Isi-c/Id	L. Paleo.		Small vertebrate, class ind.	Phalange	3
32	33	1397	Isi-c/Id	L. Paleo.		Small vertebrate, class ind.	Vertebra	1
32	33	1397	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	14
32	33	1397	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Central tarsal bone	1
32	33	1397	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Radius	1
32	33	1397	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	96
32	34	1401	Isi-c/Id	L. Paleo.		Carnivora	Tooth, perm./decid. ind.	1
32	34	1401	Isi-c/Id	L. Paleo.		Emydidae	Peripheral	1
32	34	1401	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Metapodial	1
32	34	1401	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	5
32	34	1401	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
32	34	1401	Isi-c/Id	L. Paleo.		Medium vertebrate, class ind.	Phalange	1
32	34	1401	Isi-c/Id	L. Paleo.		Small vertebrate, class ind.	Caudal vertebra	1
32	34	1401	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	17
32	34	1401	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	30
32	35	1471	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	6
32	35	1471	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	23
32	35	1471	Isi/Isi-c	Paleoindian		Testudinata	Shell fragment	1
32	35	1471	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	53
32	36	1689	Isi/Isi-c	Paleoindian		Aves (Medium)	Carpometacarpus	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
32	36	1689	Isi/Isi-c	Paleoindian		Colubridae	Dorsal vertebra	1
32	36	1689	Isi/Isi-c	Paleoindian		<i>Geomys</i> sp.	Permanent tooth	5
32	36	1689	Isi/Isi-c	Paleoindian		Leporidae	Permanent tooth	2
32	36	1689	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	2
32	36	1689	Isi/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	1
32	36	1689	Isi/Isi-c	Paleoindian		<i>Neotoma</i> sp.	Permanent tooth	1
32	36	1689	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
32	36	1689	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	20
32	36	1689	Isi/Isi-c	Paleoindian		Testudinata	Shell fragment	1
32	36	1689	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	70
32	36	1693	Isi/Isi-c	Paleoindian		Mammalia (Large)	Indeterminate	1
32	38	1806	Isi/Isi-c	Paleoindian		Colubridae	Dorsal vertebra	1
32	38	1806	Isi/Isi-c	Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1
32	38	1806	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
32	38	1806	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
32	38	1806	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	3
32	38	1806	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Third tarsal	1
32	38	1806	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	27
32	39	1844	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
32	39	1844	Isi/Isi-c	Paleoindian		Mammalia (Small)	Metapodial	1
32	39	1844	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
32	39	1844	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	25
32	39	1844	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Vertebra	1
32	39	1844	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	1
32	39	1844	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Ulna	2
32	39	1844	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	48
32	40	1856	Isi/Isi-c	Paleoindian		Aves (Medium)	Distal phalange	1
32	40	1856	Isi/Isi-c	Paleoindian		Mammalia (Large)	Tooth, perm./decid. ind.	1
32	40	1856	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	23
32	40	1856	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	11
32	40	1856	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	58
33	16	682	IIIa	E. Archaic		Colubridae	Dorsal vertebra	1
33	16	682	IIIa	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
33	16	682	IIIa	E. Archaic		Serpentes	Dorsal vertebra	1
33	16	682	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	4
33	16	682	IIIa	E. Archaic		Vertebrata	Indeterminate	19
33	17A	695	IIIa	E. Archaic		Vertebrata	Indeterminate	3
33	17B	712	IIIa	E. Archaic	217	Leporidae	Permanent tooth	1
33	17B	712	IIIa	E. Archaic	217	Mammalia (Medium/large)	Indeterminate	4
33	17B	712	IIIa	E. Archaic	217	Mammalia (Medium/large)	Long bone	1
33	17B	712	IIIa	E. Archaic	217	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
33	17B	712	IIIa	E. Archaic	217	Mammalia (Small)	Radius	1
33	17B	712	IIIa	E. Archaic	217	<i>Odocoileus</i> sp.	Proximal abaxial sesamoid	1
33	17B	712	IIIa	E. Archaic	217	Serpentes	Dorsal vertebra	1
33	17B	712	IIIa	E. Archaic	217	Small/Medium Vertebrata	Long bone	3
33	17B	712	IIIa	E. Archaic	217	<i>Sylvilagus</i> sp.	Calcaneus	1
33	17B	712	IIIa	E. Archaic	217	Vertebrata	Indeterminate	27
33	19	912	IIIa	E. Archaic	231	Leporidae	Permanent tooth	2
33	19	912	IIIa	E. Archaic	231	Mammalia (Medium)	Distal phalange	1
33	19	912	IIIa	E. Archaic	231	Mammalia (Medium)	Ulna	1
33	19	912	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
33	19	912	IIIa	E. Archaic	231	Mammalia (Medium/large)	Long bone	1
33	19	912	IIIa	E. Archaic	231	Mammalia (Micro)	Permanent tooth	1
33	19	912	IIIa	E. Archaic	231	Small vertebrate, class ind.	Middle phalange	1
33	19	912	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	5
33	19	912	IIIa	E. Archaic	231	Testudinata	Shell fragment	1
33	19	912	IIIa	E. Archaic	231	Vertebrata	Indeterminate	34
33	20	974	IIIa	E. Archaic	231	<i>Geomys</i> sp.	Permanent tooth	1
33	20	974	IIIa	E. Archaic	231	<i>Lepus californicus</i>	Permanent tooth	1
33	20	974	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	3
33	20	974	IIIa	E. Archaic	231	Mammalia (Medium/large)	Long bone	1
33	20	974	IIIa	E. Archaic	231	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
33	20	974	IIIa	E. Archaic	231	Mammalia (Small)	Permanent tooth	1
33	20	974	IIIa	E. Archaic	231	<i>Neotoma</i> sp.	Permanent tooth	1
33	20	974	IIIa	E. Archaic	231	Small vertebrate, class ind.	Phalange	1
33	20	974	IIIa	E. Archaic	231	Small vertebrate, class ind.	Proximal phalange	1
33	20	974	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	14

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
33	20	974	IIIa	E. Archaic	231	Vertebrata	Indeterminate	47
33	21	995	II/IIIa	L. Paleo./E. Archaic		Carnivora	Permanent tooth	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		Mammalia (Large)	Indeterminate	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Ulna	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	2
33	21	995	II/IIIa	L. Paleo./E. Archaic		Medium vertebrate, class ind.	Middle phalange	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		Small vertebrate, class ind.	Phalange	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	11
33	21	995	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Vertebra	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Central tarsal bone	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Femur	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Humerus	2
33	21	995	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
33	21	995	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	57
33	22	1023	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	1
33	22	1023	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Middle phalange	1
33	22	1023	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Ulna	1
33	22	1023	II/IIIa	L. Paleo./E. Archaic		Small vertebrate, class ind.	Distal phalange	1
33	22	1023	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
33	22	1023	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	20
33	23	1045	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Fourth tarsal	1
33	23	1045	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	4
33	23	1045	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
33	23	1045	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
33	23	1045	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	8
33	23	1045	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Calcaneus	1
33	23	1045	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	18
33	24	1099	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
33	24	1099	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Distal phalange	1
33	24	1099	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
33	24	1099	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	21
33	24	1099	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
33	24	1099	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	36
33	25	1133	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	3
33	25	1133	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
33	25	1133	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Femur	1
33	25	1133	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	14
33	25	1133	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Metapodial	1
33	25	1133	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
33	25	1133	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	42
33	26	1177	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	4
33	26	1177	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	3
33	26	1177	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	8
33	27	1198	II	L. Paleo.		Leporidae	Permanent tooth	1
33	27	1198	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
33	27	1198	II	L. Paleo.		Mammalia (Medium/large)	Long bone	5
33	27	1198	II	L. Paleo.		Small/Medium Vertebrata	Long bone	9
33	27	1198	II	L. Paleo.		<i>Sylvilagus</i> sp.	Ulna	1
33	27	1198	II	L. Paleo.		Vertebrata	Indeterminate	37
33	28	1215	II	L. Paleo.		Mammalia (Large)	Long bone	1
33	28	1215	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
33	28	1215	II	L. Paleo.		Mammalia (Small)	Metapodial	1
33	28	1215	II	L. Paleo.		Mammalia (Small)	Tibia	1
33	28	1215	II	L. Paleo.		Small/Medium Vertebrata	Long bone	11
33	28	1215	II	L. Paleo.		Vertebrata	Indeterminate	11
33	29	1231	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
33	29	1231	II	L. Paleo.		Small/Medium Vertebrata	Long bone	12
33	29	1231	II	L. Paleo.		Vertebrata	Indeterminate	9
33	30A	1408	II	L. Paleo.		Leporidae	Permanent tooth	1
33	30A	1408	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
33	30A	1408	II	L. Paleo.		Mammalia (Medium/large)	Long bone	5
33	30A	1408	II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
33	30A	1408	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
33	30A	1408	II	L. Paleo.		<i>Sylvilagus</i> sp.	Femur	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
33	30A	1408	II	L. Paleo.	236	Vertebrata	Indeterminate	22
33	30B	1431	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
33	31A	1414	Id/II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	2
33	31A	1414	Id/II	L. Paleo.		Mammalia (Large)	Tooth, perm./decid. ind.	1
33	31A	1414	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	5
33	31A	1414	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
33	31A	1414	Id/II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
33	31A	1414	Id/II	L. Paleo.		Mammalia (Small)	Femur	1
33	31A	1414	Id/II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
33	31A	1414	Id/II	L. Paleo.		Mammalia (Small/medium)	Alveolar ridge fragment	1
33	31A	1414	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	23
33	31A	1414	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	2
33	31A	1414	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	2
33	31A	1414	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Radius	1
33	31A	1414	Id/II	L. Paleo.		Vertebrata	Indeterminate	66
33	32	1592	Id/II	L. Paleo.		Leporidae	Permanent tooth	1
33	32	1592	Id/II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
33	32	1592	Id/II	L. Paleo.		Mammalia (Small)	Middle phalange	1
33	32	1592	Id/II	L. Paleo.		Mammalia (Small)	Radius	1
33	32	1592	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
33	32	1592	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
33	32	1592	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Radius	1
33	32	1592	Id/II	L. Paleo.		Vertebrata	Indeterminate	40
33	33	1665	Id	L. Paleo.		Leporidae	Permanent tooth	1
33	33	1665	Id	L. Paleo.		Mammalia (Medium/large)	Long bone	5
33	33	1665	Id	L. Paleo.		Mammalia (Small)	Caudal vertebra	1
33	33	1665	Id	L. Paleo.		Mammalia (Small)	Scapula	1
33	33	1665	Id	L. Paleo.		Mammalia (Very large)	Tooth, perm./decid. ind.	1
33	33	1665	Id	L. Paleo.		Medium vertebrate, class ind.	Proximal phalange	2
33	33	1665	Id	L. Paleo.		<i>Neotoma</i> sp.	Permanent tooth	1
33	33	1665	Id	L. Paleo.		Small/Medium Vertebrata	Long bone	11
33	33	1665	Id	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
33	33	1665	Id	L. Paleo.		<i>Sylvilagus</i> sp.	Metatarsal 4	1
33	33	1665	Id	L. Paleo.		Vertebrata	Indeterminate	72
33	34	1782	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	3
33	34	1819	Isi-c/Id	L. Paleo.		Mammalia (Micro)	Tibia	1
33	34	1819	Isi-c/Id	L. Paleo.		Mammalia (Small)	Femur	1
33	34	1819	Isi-c/Id	L. Paleo.		Medium vertebrate, class ind.	Distal phalange	1
33	34	1819	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
33	34	1819	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	14
33	34	1819	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
33	34	1819	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	90
33	35	1889	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
33	35	1889	Isi-c/Id	L. Paleo.		Medium vertebrate, class ind.	Proximal phalange	1
33	35	1889	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	4
33	35	1889	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	9
33	35	1889	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	18
34	15	672	IIIa	E. Archaic		Leporidae	Permanent tooth	2
34	15	672	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
34	15	672	IIIa	E. Archaic		Mammalia (Medium/large)	Mandible	1
34	15	672	IIIa	E. Archaic		Mammalia (Micro)	Permanent tooth	2
34	15	672	IIIa	E. Archaic		Mammalia (Small)	Metapodial	1
34	15	672	IIIa	E. Archaic		Medium vertebrate, class ind.	Middle phalange	1
34	15	672	IIIa	E. Archaic		Serpentes	Dorsal vertebra	2
34	15	672	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	12
34	15	672	IIIa	E. Archaic		Testudinata	Shell fragment	4
34	15	672	IIIa	E. Archaic		Vertebrata	Indeterminate	83
34	16	693	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
34	16	693	IIIa	E. Archaic		Mammalia (Micro)	Calcaneus	1
34	16	693	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	9
34	16	693	IIIa	E. Archaic		Testudinata	Shell fragment	1
34	16	693	IIIa	E. Archaic		Vertebrata	Indeterminate	29
34	17	737	IIIa	E. Archaic		Mammalia (Large)	Indeterminate	1
34	17	737	IIIa	E. Archaic		Mammalia (Micro)	Permanent tooth	1
34	17	737	IIIa	E. Archaic		Mammalia (Small)	Calcaneus	1
34	17	737	IIIa	E. Archaic		Mammalia (Small)	Caudal vertebra	1
34	17	737	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
34	17	737	IIIa	E. Archaic		Small vertebrate, class ind.	Distal phalange	1
34	17	737	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	2
34	17	737	IIIa	E. Archaic		Vertebrata	Indeterminate	7
34	18	785	IIIa	E. Archaic		Leporidae	Calcaneus	1
34	18	785	IIIa	E. Archaic		Leporidae	Permanent tooth	1
34	18	785	IIIa	E. Archaic		Mammalia (Medium)	Middle phalange	1
34	18	785	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	3
34	18	785	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
34	18	785	IIIa	E. Archaic		Serpentes	Dorsal vertebra	1
34	18	785	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	6
34	18	785	IIIa	E. Archaic		Testudinata	Neural	1
34	18	785	IIIa	E. Archaic		Testudinata	Shell fragment	3
34	18	785	IIIa	E. Archaic		Vertebrata	Indeterminate	16
34	19A	845	IIIa	E. Archaic		Vertebrata	Indeterminate	4
34	19B	872	IIIa	E. Archaic	223	Leporidae	Permanent tooth	1
34	19B	872	IIIa	E. Archaic	223	Medium/Large Vertebrata	Indeterminate	4
34	19B	872	IIIa	E. Archaic	223	Small/Medium Vertebrata	Long bone	2
34	19B	872	IIIa	E. Archaic	223	Testudinata	Shell fragment	3
34	19B	872	IIIa	E. Archaic	223	Vertebrata	Indeterminate	24
34	20	985	IIIa	E. Archaic	231	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
34	20	985	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	3
34	20	985	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	3
34	20	985	IIIa	E. Archaic	231	Vertebrata	Indeterminate	12
34	21	1115	IIIa	E. Archaic	231	Colubridae	Dorsal vertebra	1
34	21	1115	IIIa	E. Archaic	231	Mammalia (Large)	Indeterminate	1
34	21	1115	IIIa	E. Archaic	231	Mammalia (Large)	Long bone	3
34	21	1115	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	3
34	21	1115	IIIa	E. Archaic	231	Mammalia (Small)	Proximal phalange	2
34	21	1115	IIIa	E. Archaic	231	<i>Neotoma</i> sp.	Permanent tooth	1
34	21	1115	IIIa	E. Archaic	231	Osteichthyes (Small)	Vertebra	1
34	21	1115	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	13
34	21	1115	IIIa	E. Archaic	231	Vertebrata	Indeterminate	55
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Leporidae	Permanent tooth	1
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	<i>Lepus californicus</i>	Humerus	1
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium)	Proximal phalange	1
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium/large)	Indeterminate	5
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Small)	Calcaneus	1
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Small)	Metapodial	1
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Small)	Proximal phalange	1
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Medium/Large Vertebrata	Indeterminate	1
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Serpentes	Dorsal vertebra	1
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	15
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	<i>Sylvilagus</i> sp.	Astragalus	1
34	22	1162	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	37
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	Carnivora	Accessory carpal bone	1
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	<i>Lepus californicus</i>	Permanent tooth	1
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium/large)	Indeterminate	3
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	Osteichthyes (Small)	Vertebra	1
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	22
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	<i>Sylvilagus</i> sp.	Astragalus	2
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	<i>Sylvilagus</i> sp.	Calcaneus	1
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	Testudinata	Peripheral	1
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	Testudinata	Shell fragment	1
34	23A	1245	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	49
34	24	1292	II/IIIa	L. Paleo./E. Archaic	231	<i>Lepus californicus</i>	Permanent tooth	1
34	24	1292	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Large)	Long bone	1
34	24	1292	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Micro)	Permanent tooth	1
34	24	1292	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	23
34	24	1292	II/IIIa	L. Paleo./E. Archaic	231	<i>Sylvilagus</i> sp.	Calcaneus	1
34	24	1292	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	39
34	25A	1346	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
34	25A	1346	II	L. Paleo.		Leporidae	Mandible	1
34	25A	1346	II	L. Paleo.		Leporidae	Permanent tooth	3
34	25A	1346	II	L. Paleo.		Mammalia (Medium)	Radius	1
34	25A	1346	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
34	25A	1346	II	L. Paleo.		Mammalia (Micro)	Permanent tooth	1
34	25A	1346	II	L. Paleo.		Serpentes	Dorsal vertebra	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
34	25A	1346	II	L. Paleo.		Small/Medium Vertebrata	Long bone	11
34	25A	1346	II	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
34	25A	1346	II	L. Paleo.		<i>Sylvilagus</i> sp.	Femur	1
34	25A	1346	II	L. Paleo.		Vertebrata	Indeterminate	19
34	25B	1382	II	L. Paleo.	239	Small/Medium Vertebrata	Long bone	4
34	25B	1382	II	L. Paleo.	239	Vertebrata	Indeterminate	8
34	26A	1421	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
34	26A	1421	II	L. Paleo.		Mammalia (Micro)	Tibia	1
34	26A	1421	II	L. Paleo.		Serpentes	Dorsal vertebra	1
34	26A	1421	II	L. Paleo.		Small vertebrate, class ind.	Proximal phalange	1
34	26A	1421	II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
34	26A	1421	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
34	26A	1421	II	L. Paleo.		Vertebrata	Indeterminate	29
34	26B	1442	II	L. Paleo.	239	Vertebrata	Indeterminate	16
34	27A	1466	II	L. Paleo.		Mammalia (Medium)	Calcaneus	1
34	27A	1466	II	L. Paleo.		Mammalia (Medium)	Femur	1
34	27A	1466	II	L. Paleo.		Mammalia (Medium/large)	Long bone	2
34	27A	1466	II	L. Paleo.		Mammalia (Medium/large)	Phalange	1
34	27A	1466	II	L. Paleo.		Mammalia (Micro)	Astragalus	1
34	27A	1466	II	L. Paleo.		Mammalia (Micro)	Tibia	1
34	27A	1466	II	L. Paleo.		Osteichthyes (Small)	Vertebra	1
34	27A	1466	II	L. Paleo.		Small vertebrate, class ind.	Phalange	2
34	27A	1466	II	L. Paleo.		Small/Medium Vertebrata	Long bone	13
34	27A	1466	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
34	27A	1466	II	L. Paleo.		Vertebrata	Indeterminate	39
34	27B	1473	II	L. Paleo.	239	Leporidae	Permanent tooth	1
34	27B	1473	II	L. Paleo.	239	Medium/Large Vertebrata	Indeterminate	1
34	27B	1473	II	L. Paleo.	239	Medium/Large Vertebrata	Long bone	4
34	27B	1473	II	L. Paleo.	239	Small/Medium Vertebrata	Long bone	3
34	27B	1473	II	L. Paleo.	239	<i>Sylvilagus</i> sp.	Tibia	1
34	27B	1473	II	L. Paleo.	239	Vertebrata	Indeterminate	7
34	28	1531	II	L. Paleo.		Colubridae	Dorsal vertebra	1
34	28	1531	II	L. Paleo.		Leporidae	Permanent tooth	1
34	28	1531	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
34	28	1531	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
34	28	1531	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
34	28	1531	II	L. Paleo.		Rodentia (Medium)	Permanent tooth	1
34	28	1531	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
34	28	1531	II	L. Paleo.		<i>Sylvilagus</i> sp.	Humerus	1
34	28	1531	II	L. Paleo.		Vertebrata	Indeterminate	10
34	29	1551	II	L. Paleo.		Mammalia (Small)	Patella	1
34	29	1551	II	L. Paleo.		Rodentia (Medium)	Femur	1
34	29	1551	II	L. Paleo.		Small/Medium Vertebrata	Long bone	13
34	29	1551	II	L. Paleo.		Small/Medium Vertebrata	Phalange	1
34	29	1551	II	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	2
34	29	1551	II	L. Paleo.		Vertebrata	Indeterminate	27
34	30	1666	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
34	30	1666	II	L. Paleo.		Vertebrata	Indeterminate	24
34	31A	1697	II	L. Paleo.		Small/Medium Vertebrata	Long bone	5
34	31A	1697	II	L. Paleo.		<i>Sylvilagus</i> sp.	Ulna	2
34	31A	1697	II	L. Paleo.		Vertebrata	Indeterminate	8
34	31C	1612	II	L. Paleo.	247	Small/Medium Vertebrata	Long bone	1
34	32A	1786	Id/II	L. Paleo.		Leporidae	Permanent tooth	1
34	32A	1786	Id/II	L. Paleo.		Mammalia (Medium)	Metapodial	1
34	32A	1786	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
34	32A	1786	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	12
34	32A	1786	Id/II	L. Paleo.		Vertebrata	Indeterminate	36
34	33	1850	Id/II	L. Paleo.		Leporidae	Permanent tooth	1
34	33	1850	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
34	33	1850	Id/II	L. Paleo.		Osteichthyes (Small)	Sagitta otolith	1
34	33	1850	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
34	33	1850	Id/II	L. Paleo.		Vertebrata	Indeterminate	53
35	14	709	IIIa/b	E. Archaic		Carnivora	Tooth, perm./decid. ind.	1
35	14	709	IIIa/b	E. Archaic		Colubridae	Dorsal vertebra	1
35	14	709	IIIa/b	E. Archaic		Leporidae	Permanent tooth	1
35	14	709	IIIa/b	E. Archaic		Mammalia (Large)	Tooth, perm./decid. ind.	5
35	14	709	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	6

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
35	14	709	IIa/b	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
35	14	709	IIa/b	E. Archaic		Mammalia (Small)	Cranium	1
35	14	709	IIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	4
35	14	709	IIa/b	E. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
35	14	709	IIa/b	E. Archaic		Serpentes	Dorsal vertebra	1
35	14	709	IIa/b	E. Archaic		<i>Sigmodon hispidus</i>	Cranium	1
35	14	709	IIa/b	E. Archaic		<i>Sigmodon hispidus</i>	Permanent tooth	3
35	14	709	IIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	3
35	14	709	IIa/b	E. Archaic		Vertebrata	Indeterminate	59
35	15	756	IIa	E. Archaic		Mammalia (Medium)	Proximal phalange	1
35	15	756	IIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	4
35	15	756	IIa	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	5
35	15	756	IIa	E. Archaic		Mammalia (Micro)	Tibia	1
35	15	756	IIa	E. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
35	15	756	IIa	E. Archaic		Rodentia (Medium)	Permanent tooth	1
35	15	756	IIa	E. Archaic		Small/Medium Vertebrata	Long bone	8
35	15	756	IIa	E. Archaic		Vertebrata	Indeterminate	82
35	16	803	IIa	E. Archaic		Colubridae	Dorsal vertebra	1
35	16	803	IIa	E. Archaic		Mammalia (Small)	Metapodial	1
35	16	803	IIa	E. Archaic		Mammalia (Small)	Middle phalange	1
35	16	803	IIa	E. Archaic		Serpentes	Dorsal vertebra	1
35	16	803	IIa	E. Archaic		Small/Medium Vertebrata	Long bone	5
35	16	803	IIa	E. Archaic		Vertebrata	Indeterminate	16
35	17A	828	IIa	E. Archaic		Leporidae	Permanent tooth	2
35	17A	828	IIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
35	17A	828	IIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
35	17A	828	IIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
35	17A	828	IIa	E. Archaic		Small vertebrate, class ind.	Middle phalange	1
35	17A	828	IIa	E. Archaic		Small/Medium Vertebrata	Long bone	8
35	17A	828	IIa	E. Archaic		Squamata	Vertebra	1
35	17A	828	IIa	E. Archaic		Vertebrata	Indeterminate	27
35	18	844	IIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
35	18	844	IIa	E. Archaic		Small/Medium Vertebrata	Long bone	5
35	18	844	IIa	E. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	1
35	18	844	IIa	E. Archaic		Testudinata	Shell fragment	1
35	18	844	IIa	E. Archaic		Vertebrata	Indeterminate	13
35	19	866	IIa	E. Archaic	231	Leporidae	Permanent tooth	1
35	19	866	IIa	E. Archaic	231	Mammalia (Small)	Calcaneus	1
35	19	866	IIa	E. Archaic	231	Mammalia (Small)	Proximal phalange	1
35	19	866	IIa	E. Archaic	231	Mammalia (Small)	Ulna	1
35	19	866	IIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	8
35	19	866	IIa	E. Archaic	231	Vertebrata	Indeterminate	24
35	20	894	IIa	E. Archaic	231	<i>Geomys</i> sp.	Permanent tooth	1
35	20	894	IIa	E. Archaic	231	Mammalia (Medium/large)	Long bone	2
35	20	894	IIa	E. Archaic	231	<i>Neotoma</i> sp.	Permanent tooth	1
35	20	894	IIa	E. Archaic	231	Rodentia (Medium)	Permanent tooth	1
35	20	894	IIa	E. Archaic	231	Small vertebrate, class ind.	Distal phalange	1
35	20	894	IIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	13
35	20	894	IIa	E. Archaic	231	Testudinata	Shell fragment	1
35	20	894	IIa	E. Archaic	231	Vertebrata	Indeterminate	45
35	21	996	IIa	E. Archaic	231	Leporidae	Permanent tooth	1
35	21	996	IIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
35	21	996	IIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	10
35	21	996	IIa	E. Archaic	231	Testudinata	Neural	1
35	21	996	IIa	E. Archaic	231	Testudinata	Shell fragment	1
35	21	996	IIa	E. Archaic	231	Vertebrata	Indeterminate	28
35	22	1041	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium)	Proximal phalange	1
35	22	1041	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
35	22	1041	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium/large)	Long bone	2
35	22	1041	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	12
35	22	1041	II/IIIa	L. Paleo./E. Archaic	231	<i>Sylvilagus</i> sp.	Astragalus	1
35	22	1041	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	64
35	23	1226	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
35	23	1226	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Metapodial	1
35	23	1226	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Tooth, perm./decid. ind.	1
35	23	1226	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	8
35	23	1226	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Mandible	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
35	23	1226	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Radius	1
35	23	1226	II/IIIa	L. Paleo./E. Archaic		Small vertebrate, class ind.	Phalange	1
35	23	1226	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	24
35	23	1226	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
35	23	1226	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	50
35	24	1300	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
35	24	1300	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	1
35	24	1300	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Permanent tooth	1
35	24	1300	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Femur	1
35	24	1300	II/IIIa	L. Paleo./E. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
35	24	1300	II/IIIa	L. Paleo./E. Archaic		Small vertebrate, class ind.	Proximal phalange	1
35	24	1300	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	22
35	24	1300	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Ulna	1
35	24	1300	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	38
35	25	1398	II	L. Paleo.		Mammalia (Large)	Tooth, perm./decid. ind.	1
35	25	1398	II	L. Paleo.		Mammalia (Medium)	Caudal vertebra	1
35	25	1398	II	L. Paleo.		Mammalia (Micro)	Permanent tooth	1
35	25	1398	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
35	25	1398	II	L. Paleo.		Small/Medium Vertebrata	Long bone	19
35	25	1398	II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
35	25	1398	II	L. Paleo.		<i>Sylvilagus</i> sp.	Radius	1
35	25	1398	II	L. Paleo.		<i>Sylvilagus</i> sp.	Tibia	1
35	25	1398	II	L. Paleo.		Testudinata	Humerus	1
35	25	1398	II	L. Paleo.		Vertebrata	Indeterminate	15
35	26A	1104	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
35	26A	1104	II	L. Paleo.		Leporidae	Permanent tooth	1
35	26A	1104	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
35	26A	1104	II	L. Paleo.		Mammalia (Small)	Caudal vertebra	1
35	26A	1104	II	L. Paleo.		Osteichthyes (Small)	Vertebra	3
35	26A	1104	II	L. Paleo.		Rodentia (Medium)	Permanent tooth	1
35	26A	1104	II	L. Paleo.		Small/Medium Vertebrata	Long bone	24
35	26A	1104	II	L. Paleo.		<i>Sylvilagus</i> sp.	Humerus	1
35	26A	1104	II	L. Paleo.		Testudinata	Peripheral	1
35	26A	1104	II	L. Paleo.		Vertebrata	Indeterminate	105
35	27	1463	II	L. Paleo.		Leporidae	Permanent tooth	1
35	27	1463	II	L. Paleo.		Mammalia (Large)	Indeterminate	1
35	27	1463	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
35	27	1463	II	L. Paleo.		Mammalia (Medium/large)	Long bone	3
35	27	1463	II	L. Paleo.		Mammalia (Small)	Caudal vertebra	1
35	27	1463	II	L. Paleo.		Mammalia (Small)	Metapodial	1
35	27	1463	II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
35	27	1463	II	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
35	27	1463	II	L. Paleo.		<i>Sylvilagus</i> sp.	Radius	1
35	27	1463	II	L. Paleo.		Vertebrata	Indeterminate	53
35	28	1562	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
35	28	1562	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	6
35	28	1562	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
35	28	1562	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
35	28	1562	II	L. Paleo.		Mammalia (Small)	Radius	1
35	28	1562	II	L. Paleo.		Small/Medium Vertebrata	Long bone	19
35	28	1562	II	L. Paleo.		Vertebrata	Indeterminate	76
35	29	1685	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
35	29	1685	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
35	29	1685	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
35	29	1685	II	L. Paleo.		Vertebrata	Indeterminate	31
35	30A	1698	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	2
35	30A	1698	II	L. Paleo.		Leporidae	Permanent tooth	1
35	30A	1698	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
35	30A	1698	II	L. Paleo.		Rodentia (Small)	Permanent tooth	1
35	30A	1698	II	L. Paleo.		Small vertebrate, class ind.	Phalange	1
35	30A	1698	II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
35	30A	1698	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
35	30A	1698	II	L. Paleo.		Vertebrata	Indeterminate	38
35	30B	1712	II	L. Paleo.	247	Vertebrata	Indeterminate	1
35	31A	1743	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
35	31A	1743	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
35	31A	1743	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
35	31A	1743	II	L. Paleo.		Vertebrata	Indeterminate	5
35	31B	1613	II	L. Paleo.	247	Small/Medium Vertebrata	Long bone	1
35	31B	1613	II	L. Paleo.	247	Vertebrata	Indeterminate	1
35	32	1614	II	L. Paleo.		Mammalia (Small)	Distal phalange	1
35	32	1614	II	L. Paleo.		Medium vertebrate, class ind.	Proximal phalange	1
35	32	1614	II	L. Paleo.		Small/Medium Vertebrata	Long bone	11
35	32	1614	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
35	32	1614	II	L. Paleo.		Vertebrata	Indeterminate	29
35	33	1810	Id/II	L. Paleo.		Leporidae	Permanent tooth	1
35	33	1810	Id/II	L. Paleo.		Mammalia (Small)	Epiphysis	1
35	33	1810	Id/II	L. Paleo.		Medium vertebrate, class ind.	Phalange	1
35	33	1810	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
35	33	1810	Id/II	L. Paleo.		Vertebrata	Indeterminate	36
35	34	1924	Id/II	L. Paleo.		Mammalia (Large)	Ulna	1
35	34	1924	Id/II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
35	34	1924	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
35	34	1924	Id/II	L. Paleo.		Rodentia (Medium)	Permanent tooth	1
35	34	1924	Id/II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	2
35	34	1924	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
35	34	1924	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Humerus	1
35	34	1924	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Metatarsal 3	1
35	34	1924	Id/II	L. Paleo.		Vertebrata	Indeterminate	12
35	35	1942	Id/II	L. Paleo.		Leporidae	Permanent tooth	1
35	35	1942	Id/II	L. Paleo.		Mammalia (Small)	Epiphysis	1
35	35	1942	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	6
35	35	1942	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	5
35	35	1942	Id/II	L. Paleo.		Vertebrata	Indeterminate	22
35	36	1982	Isi-c/Id	L. Paleo.		Leporidae	Permanent tooth	1
35	36	1982	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Rib	1
35	36	1982	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Vertebra	1
35	36	1982	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	3
35	36	1982	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	17
35	37	2001	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Rib	1
35	37	2001	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Permanent tooth	1
35	37	2001	Isi-c/Id	L. Paleo.		Mammalia (Small)	Femur	1
35	37	2001	Isi-c/Id	L. Paleo.		Mammalia (Small)	Tibia	1
35	37	2001	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	11
35	37	2001	Isi-c/Id	L. Paleo.		Testudinata	Carapace fragment ind.	1
35	37	2001	Isi-c/Id	L. Paleo.		Testudinata	Shell fragment	2
35	37	2001	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	35
35	38	2020	Isi-c/Id	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
35	38	2020	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Long bone	1
35	38	2020	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
35	38	2020	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Vertebra	1
35	38	2020	Isi-c/Id	L. Paleo.		<i>Neotoma</i> sp.	Permanent tooth	1
35	38	2020	Isi-c/Id	L. Paleo.		Serpentes	Dorsal vertebra	1
35	38	2020	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	7
35	38	2020	Isi-c/Id	L. Paleo.		Testudinata	Shell fragment	1
35	38	2020	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	20
35	39	2056	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
35	39	2056	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
35	39	2056	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Metatarsal 5	1
35	39	2056	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
35	39	2056	Isi-c	L. Paleo.		Vertebrata	Indeterminate	21
35	40	2074	Isi-c	L. Paleo.		Leporidae	Permanent tooth	1
35	40	2074	Isi-c	L. Paleo.		Mammalia (Small)	Femur	1
35	40	2074	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
35	40	2074	Isi-c	L. Paleo.		Serpentes	Dorsal vertebra	2
35	40	2074	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	7
35	40	2074	Isi-c	L. Paleo.		Testudinata	Shell fragment	2
35	40	2074	Isi-c	L. Paleo.		Vertebrata	Indeterminate	28
35	41	2692	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
35	41	2692	Isi-c	L. Paleo.		Mammalia (Small)	Radius	1
35	41	2692	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
35	41	2692	Isi-c	L. Paleo.		Vertebrata	Indeterminate	20
35	42	2118	Icl/Isi-c	Paleoindian		Leporidae	Cranium	1
35	42	2118	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	7

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
35	42	2118	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	11
35	42	2118	Icl/Isi-c	Paleoindian		Testudinata	Shell fragment	1
35	42	2118	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	11
35	43	2786	Icl/Isi-c	Paleoindian		Mammalia (Large)	Cranium	1
35	43	2786	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	10
35	43	2786	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
35	43	2786	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	3
35	43	2786	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
35	44	2659	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	11
35	44	2659	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	18
35	44	2659	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	30
35	45	2729	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	3
35	45	2729	Isi/Icl	E. Paleoindian		Mammalia (Small)	Radius	1
35	45	2729	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
35	45	2729	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	8
35	45	2729	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	13
35	46	2683	Isi/Icl	E. Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1
35	46	2683	Isi/Icl	E. Paleoindian		Mammalia (Large)	Phalange	1
35	46	2683	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
35	46	2683	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	6
35	46	2683	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	20
35	47	2636	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	3
35	47	2636	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	9
35	47	2636	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
35	47	2636	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	29
35	48	2370	Isi/Icl	E. Paleoindian	259	Vertebrata	Indeterminate	8
35	48	2380	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
35	48	2391	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
35	48	2747	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
35	48	2747	Isi/Icl	E. Paleoindian		Testudinata	Shell fragment	1
35	48	2747	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	14
35	49	2426	Isi/Icl	E. Paleoindian		Testudinata	Shell fragment	4
35	49	2426	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	3
35	49	2745	Isi/Icl	E. Paleoindian		Mammalia (Small/medium)	Long bone	1
35	49	2745	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	2
35	49	2745	Isi/Icl	E. Paleoindian		Testudinata	Shell fragment	1
35	49	2745	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	5
35	50	2425	Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	1
35	50	2427	Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	1
35	50	2595	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	2
35	50	2595	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	15
35	51	2739	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	11
35	51	2739	Isi	E. Paleoindian		Vertebrata	Indeterminate	19
35	53	2583	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
35	53	2583	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
35	53	2583	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
37	10	520	IIIb/c	M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused central/fourth tarsal	1
37	10	520	IIIb/c	M. Archaic		Colubridae	Dorsal vertebra	2
37	10	520	IIIb/c	M. Archaic		Leporidae	Patella	1
37	10	520	IIIb/c	M. Archaic		Leporidae	Permanent tooth	1
37	10	520	IIIb/c	M. Archaic		Leporidae	Ulna	1
37	10	520	IIIb/c	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
37	10	520	IIIb/c	M. Archaic		Mammalia (Medium/large)	Indeterminate	1
37	10	520	IIIb/c	M. Archaic		Mammalia (Medium/large)	Long bone	3
37	10	520	IIIb/c	M. Archaic		Mammalia (Small)	Calcaneus	1
37	10	520	IIIb/c	M. Archaic		Mammalia (Small)	Podial	1
37	10	520	IIIb/c	M. Archaic		Mammalia (Small)	Proximal phalange	1
37	10	520	IIIb/c	M. Archaic		Medium/Large Vertebrata	Indeterminate	1
37	10	520	IIIb/c	M. Archaic		Serpentes	Dorsal vertebra	2
37	10	520	IIIb/c	M. Archaic		Small/Medium Vertebrata	Long bone	18
37	10	520	IIIb/c	M. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
37	10	520	IIIb/c	M. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	1
37	10	520	IIIb/c	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	4
37	10	520	IIIb/c	M. Archaic		Vertebrata	Indeterminate	138
37	11	532	IIIb	M. Archaic		Anura	Humerus	1
37	11	532	IIIb	M. Archaic		cf. <i>Procyon lotor</i>	Permanent tooth	1
37	11	532	IIIb	M. Archaic		Colubridae	Dorsal vertebra	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
37	11	532	IIIb	M. Archaic		Leporidae	Patella	1
37	11	532	IIIb	M. Archaic		Leporidae	Permanent tooth	3
37	11	532	IIIb	M. Archaic		<i>Lepus californicus</i>	Metapodial	1
37	11	532	IIIb	M. Archaic		Mammalia (Medium)	Long bone	1
37	11	532	IIIb	M. Archaic		Mammalia (Medium)	Tooth, perm./decid. ind.	1
37	11	532	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	18
37	11	532	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
37	11	532	IIIb	M. Archaic		Mammalia (Micro)	Tooth, perm./decid. ind.	3
37	11	532	IIIb	M. Archaic		Mammalia (Small)	Metapodial	1
37	11	532	IIIb	M. Archaic		Mammalia (Small)	Middle phalange	1
37	11	532	IIIb	M. Archaic		Mammalia (Small)	Phalange	1
37	11	532	IIIb	M. Archaic		Mammalia (Small)	Proximal phalange	1
37	11	532	IIIb	M. Archaic		Mammalia (Small)	Radius	1
37	11	532	IIIb	M. Archaic		<i>Procyon lotor</i>	Permanent tooth	1
37	11	532	IIIb	M. Archaic		Serpentes	Dorsal vertebra	1
37	11	532	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	36
37	11	532	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Axis	1
37	11	532	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Humerus	1
37	11	532	IIIb	M. Archaic		Testudinata	Shell fragment	2
37	11	532	IIIb	M. Archaic		Vertebrata	Indeterminate	126
37	12A	557	IIIb	M. Archaic		Colubridae	Dorsal vertebra	1
37	12A	557	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
37	12A	557	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	3
37	12A	557	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	2
37	12A	557	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
37	12A	557	IIIb	M. Archaic		Mammalia (Micro)	Calcaneus	1
37	12A	557	IIIb	M. Archaic		Small/Medium Vertebrata	Indeterminate	3
37	12A	557	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	3
37	12A	557	IIIb	M. Archaic		Vertebrata	Indeterminate	18
37	12B	588	IIIb	M. Archaic	212	Vertebrata	Indeterminate	6
37	13A	592	IIIb	M. Archaic		Carnivora	Tooth, perm./decid. ind.	1
37	13A	592	IIIb	M. Archaic		Leporidae	Permanent tooth	1
37	13A	592	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	10
37	13A	592	IIIb	M. Archaic		Small vertebrate, class ind.	Vertebra	1
37	13A	592	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Ulna	1
37	13A	592	IIIb	M. Archaic		Testudinata	Shell fragment	1
37	13A	592	IIIb	M. Archaic		Vertebrata	Indeterminate	69
37	13B	634	IIIb	M. Archaic	212	Mammalia (Medium)	Long bone	1
37	13B	634	IIIb	M. Archaic	212	Mammalia (Medium/large)	Indeterminate	1
37	13B	634	IIIb	M. Archaic	212	Mammalia (Small)	Permanent tooth	1
37	13B	634	IIIb	M. Archaic	212	Medium/Large Vertebrata	Long bone	7
37	13B	634	IIIb	M. Archaic	212	<i>Neotoma</i> sp.	Permanent tooth	1
37	13B	634	IIIb	M. Archaic	212	Vertebrata	Indeterminate	29
37	14	673	IIIa/b	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal axial sesamoid	1
37	14	673	IIIa/b	Early/M. Archaic		Mammalia (Large)	Permanent tooth	1
37	14	673	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	12
37	14	673	IIIa/b	Early/M. Archaic		Mammalia (Micro)	Permanent tooth	5
37	14	673	IIIa/b	Early/M. Archaic		Mammalia (Micro)	Tooth, perm./decid. ind.	1
37	14	673	IIIa/b	Early/M. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
37	14	673	IIIa/b	Early/M. Archaic		Small/Medium Vertebrata	Long bone	11
37	14	673	IIIa/b	Early/M. Archaic		<i>Sylvilagus</i> sp.	Distal phalange	1
37	14	673	IIIa/b	Early/M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	2
37	14	673	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	112
37	15	692	IIIa/b	Early/M. Archaic		Carnivora	Permanent tooth	1
37	15	692	IIIa/b	Early/M. Archaic		Colubridae	Dorsal vertebra	1
37	15	692	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	7
37	15	692	IIIa/b	Early/M. Archaic		Mammalia (Small)	Tarsal	1
37	15	692	IIIa/b	Early/M. Archaic		Medium vertebrate, class ind.	Middle phalange	1
37	15	692	IIIa/b	Early/M. Archaic		Medium/Large Vertebrata	Indeterminate	4
37	15	692	IIIa/b	Early/M. Archaic		Serpentes	Dorsal vertebra	3
37	15	692	IIIa/b	Early/M. Archaic		Small/Medium Vertebrata	Long bone	14
37	15	692	IIIa/b	Early/M. Archaic		<i>Sylvilagus</i> sp.	Astragalus	1
37	15	692	IIIa/b	Early/M. Archaic		Testudinata	Shell fragment	2
37	15	692	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	70
37	16A	778	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
37	16A	778	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	4
37	16A	778	IIIa	E. Archaic		Vertebrata	Indeterminate	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
37	16B&	851	IIIa	E. Archaic	222	Vertebrata	Indeterminate	1
37	17A	825	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	4
37	17A	825	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	2
37	17A	825	IIIa	E. Archaic		Vertebrata	Indeterminate	16
37	18	852	IIIa	E. Archaic		Leporidae	Permanent tooth	2
37	18	852	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	5
37	18	852	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	3
37	18	852	IIIa	E. Archaic		Vertebrata	Indeterminate	46
37	19	893	IIIa	E. Archaic	231	Colubridae	Dorsal vertebra	1
37	19	893	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
37	19	893	IIIa	E. Archaic	231	Vertebrata	Indeterminate	28
37	20	937	IIIa	E. Archaic	231	Mammalia (Medium)	Radius	1
37	20	937	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
37	20	937	IIIa	E. Archaic	231	Mammalia (Small)	Femur	1
37	20	937	IIIa	E. Archaic	231	Mammalia (Small)	Radius	1
37	20	937	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	5
37	20	937	IIIa	E. Archaic	231	<i>Sylvilagus</i> sp.	Calcaneus	1
37	20	937	IIIa	E. Archaic	231	Vertebrata	Indeterminate	35
37	21	1017	IIIa	E. Archaic	231	Mammalia (Medium)	Proximal phalange	1
37	21	1017	IIIa	E. Archaic	231	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
37	21	1017	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	4
37	21	1017	IIIa	E. Archaic	231	<i>Sylvilagus</i> sp.	Permanent tooth	1
37	21	1017	IIIa	E. Archaic	231	Testudinata	Shell fragment	1
37	21	1017	IIIa	E. Archaic	231	Vertebrata	Indeterminate	15
37	22	1159	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
37	22	1159	IIIa	E. Archaic	231	Small vertebrate, class ind.	Proximal phalange	1
37	22	1159	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	12
37	22	1159	IIIa	E. Archaic	231	Testudinata	Shell fragment	2
37	22	1159	IIIa	E. Archaic	231	Vertebrata	Indeterminate	16
37	23	1345	IIIa	E. Archaic	231	<i>Geomys</i> sp.	Permanent tooth	1
37	23	1345	IIIa	E. Archaic	231	Leporidae	Humerus	1
37	23	1345	IIIa	E. Archaic	231	Leporidae	Mandible	1
37	23	1345	IIIa	E. Archaic	231	Leporidae	Permanent tooth	1
37	23	1345	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	3
37	23	1345	IIIa	E. Archaic	231	Mammalia (Medium/large)	Long bone	3
37	23	1345	IIIa	E. Archaic	231	Medium vertebrate, class ind.	Middle phalange	1
37	23	1345	IIIa	E. Archaic	231	Medium/Large Vertebrata	Indeterminate	1
37	23	1345	IIIa	E. Archaic	231	Medium/Large Vertebrata	Long bone	1
37	23	1345	IIIa	E. Archaic	231	<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	1
37	23	1345	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	18
37	23	1345	IIIa	E. Archaic	231	Vertebrata	Indeterminate	45
37	24A	1474	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
37	24A	1474	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
37	24A	1474	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	27
37	25	1561	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Alveolar ridge fragment	1
37	25	1561	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Metapodial	1
37	25	1561	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
37	25	1561	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	3
37	25	1561	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Caudal vertebra	1
37	25	1561	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
37	25	1561	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	11
37	25	1561	II/IIIa	L. Paleo./E. Archaic		Testudinata	Neural	1
37	25	1561	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	48
37	26	1571	II	L. Paleo.		Leporidae	Permanent tooth	1
37	26	1571	II	L. Paleo.		Mammalia (Medium)	Distal phalange	1
37	26	1571	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
37	26	1571	II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
37	26	1571	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metacarpal 2	1
37	26	1571	II	L. Paleo.		Vertebrata	Indeterminate	35
37	28	1787	II	L. Paleo.		Mammalia (Medium)	Femur	1
37	28	1787	II	L. Paleo.		Mammalia (Medium)	Metapodial	1
37	28	1787	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
37	28	1787	II	L. Paleo.		Mammalia (Micro)	Middle phalange	1
37	28	1787	II	L. Paleo.		Mammalia (Micro)	Permanent tooth	2
37	28	1787	II	L. Paleo.		Small/Medium Vertebrata	Long bone	38
37	28	1787	II	L. Paleo.		<i>Sylvilagus</i> sp.	Humerus	1
37	28	1787	II	L. Paleo.		<i>Sylvilagus</i> sp.	Third tarsal	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
37	28	1787	II	L. Paleo.		Vertebrata	Indeterminate	123
37	28	1787	II	L. Paleo.		Viperidae	Dorsal vertebra	1
37	29	1822	II	L. Paleo.		Small/Medium Vertebrata	Long bone	27
37	29	1822	II	L. Paleo.		Testudinata	Shell fragment	1
37	29	1822	II	L. Paleo.		Vertebrata	Indeterminate	23
37	30	1832	II	L. Paleo.		Small vertebrate, class ind.	Proximal phalange	1
37	30	1832	II	L. Paleo.		Small/Medium Vertebrata	Long bone	17
37	30	1832	II	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
37	30	1832	II	L. Paleo.		Vertebrata	Indeterminate	36
37	31	1860	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
37	31	1860	II	L. Paleo.		Mammalia (Small)	Cranium	1
37	31	1860	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
37	31	1860	II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
37	31	1860	II	L. Paleo.		Small/Medium Vertebrata	Long bone	15
37	31	1860	II	L. Paleo.		Vertebrata	Indeterminate	24
37	32	1897	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
37	32	1897	II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
37	32	1897	II	L. Paleo.		Small/Medium Vertebrata	Long bone	17
37	32	1897	II	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
37	32	1897	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
37	32	1897	II	L. Paleo.		Vertebrata	Indeterminate	29
37	33	1923	II	L. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	1
37	33	1923	II	L. Paleo.		Mammalia (Medium)	Rib	1
37	33	1923	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	6
37	33	1923	II	L. Paleo.		Mammalia (Medium/large)	Long bone	6
37	33	1923	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
37	33	1923	II	L. Paleo.		Mammalia (Small)	Metapodial	1
37	33	1923	II	L. Paleo.		Medium/Large Vertebrata	Vertebra	1
37	33	1923	II	L. Paleo.		Serpentes	Dorsal vertebra	1
37	33	1923	II	L. Paleo.		Small vertebrate, class ind.	Vertebra	1
37	33	1923	II	L. Paleo.		Small/Medium Vertebrata	Long bone	5
37	33	1923	II	L. Paleo.		Testudinata	Peripheral	1
37	33	1923	II	L. Paleo.		Vertebrata	Indeterminate	52
38	9	509	IIIb/c	Middle/L. Archaic		Mammalia (Medium/large)	Indeterminate	2
38	9	509	IIIb/c	Middle/L. Archaic		Small/Medium Vertebrata	Long bone	1
38	9	509	IIIb/c	Middle/L. Archaic		Vertebrata	Indeterminate	5
38	10	515	IIIb	M. Archaic		Kinosternidae	Neural	1
38	10	515	IIIb	M. Archaic		Mammalia (Large)	Long bone	1
38	10	515	IIIb	M. Archaic		Mammalia (Large)	Rib	1
38	10	515	IIIb	M. Archaic		Mammalia (Medium)	Patella	1
38	10	515	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	5
38	10	515	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	12
38	10	515	IIIb	M. Archaic		Vertebrata	Indeterminate	15
38	11	527	IIIb	M. Archaic		Colubridae	Dorsal vertebra	1
38	11	527	IIIb	M. Archaic		Cricetidae	Tibia	1
38	11	527	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
38	11	527	IIIb	M. Archaic		<i>Lepus californicus</i>	Metatarsal 2	1
38	11	527	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	5
38	11	527	IIIb	M. Archaic		Mammalia (Small)	Alveolar ridge fragment	1
38	11	527	IIIb	M. Archaic		Mammalia (Small)	Proximal phalange	3
38	11	527	IIIb	M. Archaic		Mammalia (Small/medium)	Epiphysis	1
38	11	527	IIIb	M. Archaic		<i>Odocoileus</i> sp.	Permanent tooth	1
38	11	527	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	12
38	11	527	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	3
38	11	527	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Ulna	1
38	11	527	IIIb	M. Archaic		Vertebrata	Indeterminate	56
38	12A	535	IIIb	M. Archaic		<i>Antilocapra/Odocoileus</i>	Accessory carpal bone	1
38	12A	535	IIIb	M. Archaic		<i>Geomys</i> sp.	Tibia	1
38	12A	535	IIIb	M. Archaic		<i>Lepus californicus</i>	Astragalus	1
38	12A	535	IIIb	M. Archaic		<i>Lepus californicus</i>	Calcaneus	1
38	12A	535	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	2
38	12A	535	IIIb	M. Archaic		<i>Lepus californicus</i>	Tibia	1
38	12A	535	IIIb	M. Archaic		Mammalia (Large)	Indeterminate	4
38	12A	535	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	22
38	12A	535	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
38	12A	535	IIIb	M. Archaic		Mammalia (Micro)	Permanent tooth	1
38	12A	535	IIIb	M. Archaic		Medium/Large Vertebrata	Indeterminate	6

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
38	12A	535	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	19
38	12A	535	IIIb	M. Archaic		Testudinata	Shell fragment	1
38	12A	535	IIIb	M. Archaic		Vertebrata	Indeterminate	75
38	13A	550	IIIb	M. Archaic		Artiodactyla	Tooth, perm./decid. ind.	1
38	13A	550	IIIb	M. Archaic		Leporidae	Permanent tooth	1
38	13A	550	IIIb	M. Archaic		Mammalia (Medium)	Epiphysis	1
38	13A	550	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	5
38	13A	550	IIIb	M. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
38	13A	550	IIIb	M. Archaic		Mammalia (Small)	Proximal phalange	1
38	13A	550	IIIb	M. Archaic		Mammalia (Small/medium)	Epiphysis	1
38	13A	550	IIIb	M. Archaic		<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	2
38	13A	550	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	2
38	13A	550	IIIb	M. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	4
38	13A	550	IIIb	M. Archaic		Testudinata	Shell fragment	2
38	13A	550	IIIb	M. Archaic		Vertebrata	Indeterminate	75
38	13B	571	IIIb	M. Archaic	212	Artiodactyla	Tooth, perm./decid. ind.	4
38	13B	571	IIIb	M. Archaic	212	Mammalia (Medium/large)	Long bone	1
38	13B	571	IIIb	M. Archaic	212	Vertebrata	Indeterminate	6
38	14	583	IIIb	M. Archaic		<i>Geomys</i> sp.	Permanent tooth	2
38	14	583	IIIb	M. Archaic		Leporidae	Permanent tooth	5
38	14	583	IIIb	M. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
38	14	583	IIIb	M. Archaic		Mammalia (Medium)	Long bone	3
38	14	583	IIIb	M. Archaic		Mammalia (Medium/large)	Indeterminate	13
38	14	583	IIIb	M. Archaic		Mammalia (Medium/large)	Long bone	1
38	14	583	IIIb	M. Archaic		Mammalia (Small)	Permanent tooth	2
38	14	583	IIIb	M. Archaic		Mammalia (Small)	Phalange	1
38	14	583	IIIb	M. Archaic		Mammalia (Small)	Proximal phalange	1
38	14	583	IIIb	M. Archaic		Medium/Large Vertebrata	Indeterminate	4
38	14	583	IIIb	M. Archaic		Rodentia (Medium)	Femur	1
38	14	583	IIIb	M. Archaic		Serpentes	Dorsal vertebra	1
38	14	583	IIIb	M. Archaic		Small/Medium Vertebrata	Long bone	16
38	14	583	IIIb	M. Archaic		Testudinata	Shell fragment	1
38	14	583	IIIb	M. Archaic		Vertebrata	Indeterminate	71
38	15	593	IIIa/b	Early/M. Archaic		<i>Antilocapra/Odocoileus</i>	Fused central/fourth tarsal	1
38	15	593	IIIa/b	Early/M. Archaic		Colubridae	Dorsal vertebra	1
38	15	593	IIIa/b	Early/M. Archaic		Leporidae	Permanent tooth	2
38	15	593	IIIa/b	Early/M. Archaic		Leporidae	Ulna	1
38	15	593	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	6
38	15	593	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Long bone	1
38	15	593	IIIa/b	Early/M. Archaic		<i>Odocoileus</i> sp.	Fused 3rd & 4th metatarsal	1
38	15	593	IIIa/b	Early/M. Archaic		Small/Medium Vertebrata	Long bone	6
38	15	593	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	53
38	16	639	IIIa/b	Early/M. Archaic		Mammalia (Large)	Long bone	8
38	16	639	IIIa/b	Early/M. Archaic		Mammalia (Medium/large)	Indeterminate	6
38	16	639	IIIa/b	Early/M. Archaic		Serpentes	Dorsal vertebra	1
38	16	639	IIIa/b	Early/M. Archaic		Small/Medium Vertebrata	Long bone	2
38	16	639	IIIa/b	Early/M. Archaic		Testudinata	Shell fragment	3
38	16	639	IIIa/b	Early/M. Archaic		Vertebrata	Indeterminate	32
38	17A	667	IIIa	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
38	17A	667	IIIa	E. Archaic		Serpentes	Vertebra	2
38	17A	667	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	3
38	17A	667	IIIa	E. Archaic		Vertebrata	Indeterminate	32
38	17B	816	IIIa	E. Archaic		Vertebrata	Indeterminate	1
38	19	919	IIIa	E. Archaic		Mammalia (Medium/large)	Long bone	1
38	19	919	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	4
38	19	919	IIIa	E. Archaic		Testudinata	Shell fragment	1
38	19	919	IIIa	E. Archaic		Vertebrata	Indeterminate	48
38	20	963	IIIa	E. Archaic	231	<i>Geomys</i> sp.	Permanent tooth	2
38	20	963	IIIa	E. Archaic	231	Mammalia (Large)	Long bone	2
38	20	963	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
38	20	963	IIIa	E. Archaic	231	Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
38	20	963	IIIa	E. Archaic	231	Mammalia (Small)	Permanent tooth	1
38	20	963	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	9
38	20	963	IIIa	E. Archaic	231	<i>Sylvilagus</i> sp.	Calcaneus	1
38	20	963	IIIa	E. Archaic	231	Testudinata	Shell fragment	1
38	20	963	IIIa	E. Archaic	231	Vertebrata	Indeterminate	38
38	21A	173	IIIa	E. Archaic	231	Cricetidae (Medium)	Tibia	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
38	21A	173	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	3
38	21A	173	IIIa	E. Archaic	231	Mammalia (Micro)	Tooth, perm./decid. ind.	1
38	21A	173	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	1
38	21A	173	IIIa	E. Archaic	231	Vertebrata	Indeterminate	11
38	21B	1002	IIIa	E. Archaic	228	<i>Lepus californicus</i>	Permanent tooth	1
38	21B	1002	IIIa	E. Archaic	228	Vertebrata	Indeterminate	10
38	22	1064	IIIa	E. Archaic	231	Kinosternidae	Peripheral	1
38	22	1064	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
38	22	1064	IIIa	E. Archaic	231	Mammalia (Medium/large)	Long bone	2
38	22	1064	IIIa	E. Archaic	231	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
38	22	1064	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	4
38	22	1064	IIIa	E. Archaic	231	Vertebrata	Indeterminate	42
38	23	1354	IIIa	E. Archaic	231	Leporidae	Permanent tooth	2
38	23	1354	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	3
38	23	1354	IIIa	E. Archaic	231	Medium/Large Vertebrata	Long bone	1
38	23	1354	IIIa	E. Archaic	231	Serpentes	Dorsal vertebra	1
38	23	1354	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	13
38	23	1354	IIIa	E. Archaic	231	Vertebrata	Indeterminate	36
38	24	2315	II/IIIa	L. Paleo./E. Archaic	231	cf. <i>Lepus californicus</i>	Tibia	1
38	24	2315	II/IIIa	L. Paleo./E. Archaic	231	<i>Lepus californicus</i>	Astragalus	1
38	24	2315	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium/large)	Indeterminate	3
38	24	2315	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Micro)	Permanent tooth	2
38	24	2315	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	11
38	24	2315	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Proximal phalange	1
38	24	2315	II/IIIa	L. Paleo./E. Archaic	231	Testudinata	Shell fragment	1
38	24	2315	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	62
38	24A	1961	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
38	24A	1961	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	16
38	24B&	1951	II/IIIa	L. Paleo./E. Archaic	181/231	Mammalia (Small/medium)	Vertebra	1
38	24B&	1951	II/IIIa	L. Paleo./E. Archaic	181/231	Small/Medium Vertebrata	Long bone	5
38	24B&	1951	II/IIIa	L. Paleo./E. Archaic	181/231	Vertebrata	Indeterminate	6
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		cf. <i>Lepus californicus</i>	Metapodial	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		cf. <i>Sylvilagus</i> sp.	Ulna	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Long bone	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Tibia	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Vertebra	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	3
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		Rodentia (Small)	Humerus	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		Rodentia (Small)	Permanent tooth	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
38	25A	1964	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	36
38	25B	2339	II/IIIa	L. Paleo./E. Archaic	181/231	Mammalia (Medium/large)	Indeterminate	1
38	25B	2339	II/IIIa	L. Paleo./E. Archaic	181/231	Mammalia (Small)	Permanent tooth	1
38	25B	2339	II/IIIa	L. Paleo./E. Archaic	181/231	Small/Medium Vertebrata	Long bone	4
38	25B	2339	II/IIIa	L. Paleo./E. Archaic	181/231	Vertebrata	Indeterminate	9
38	25C	2358	II/IIIa	L. Paleo./E. Archaic	258	Vertebrata	Indeterminate	3
38	26A	1972	II/IIIa	L. Paleo./E. Archaic		Carnivora	Permanent tooth	1
38	26A	1972	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
38	26A	1972	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Caudal vertebra	1
38	26A	1972	II/IIIa	L. Paleo./E. Archaic		Rodentia (Small)	Permanent tooth	1
38	26A	1972	II/IIIa	L. Paleo./E. Archaic		Serpentes	Dorsal vertebra	1
38	26A	1972	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	4
38	26A	1972	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	2
38	26A	1972	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
38	26A	2784	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
38	26A	2784	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	5
38	26A	2784	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	7
38	26B	1965	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	1
38	26B	1965	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	3
38	27	2012	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
38	27	2012	II	L. Paleo.		Mammalia (Small)	Metapodial	1
38	27	2012	II	L. Paleo.		Mammalia (Small/medium)	Podial	1
38	27	2012	II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
38	27	2012	II	L. Paleo.		Vertebrata	Indeterminate	14
38	27A	2540	II	L. Paleo.		Mammalia (Medium)	Ulna	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
38	27A	2540	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
38	27A	2540	II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
38	27A	2540	II	L. Paleo.		<i>Sylvilagus</i> sp.	Intermediate carpal bone	1
38	27A	2540	II	L. Paleo.		<i>Sylvilagus</i> sp.	Radius	1
38	27A	2540	II	L. Paleo.		Vertebrata	Indeterminate	9
38	28	2032	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
38	28	2032	II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
38	28	2032	II	L. Paleo.		Vertebrata	Indeterminate	5
38	28A	2533	II	L. Paleo.		<i>Lepus californicus</i>	Calcaneus	1
38	28A	2533	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
38	28A	2533	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
38	28A	2533	II	L. Paleo.		Small/Medium Vertebrata	Long bone	9
38	28A	2533	II	L. Paleo.		<i>Sylvilagus</i> sp.	Third tarsal	1
38	28A	2533	II	L. Paleo.		Vertebrata	Indeterminate	20
38	29	2051	II	L. Paleo.		Mammalia (Large)	Long bone	1
38	29	2061	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
38	29	2061	II	L. Paleo.		Vertebrata	Indeterminate	12
38	30	2065	II	L. Paleo.		Rodentia (Medium)	Tibia	1
38	30	2065	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
38	30	2065	II	L. Paleo.		<i>Sylvilagus</i> sp.	Ulna	1
38	30	2065	II	L. Paleo.		Vertebrata	Indeterminate	18
39	15A	722	IIIa/b	E. Archaic		Mammalia (Medium)	Metapodial	1
39	15A	722	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
39	15A	722	IIIa/b	E. Archaic		Mammalia (Small)	Permanent tooth	1
39	15A	722	IIIa/b	E. Archaic		Mammalia (Small)	Proximal phalange	1
39	15A	722	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	14
39	15A	722	IIIa/b	E. Archaic		Vertebrata	Indeterminate	23
39	15C	757	IIIa/b	E. Archaic	221	Small/Medium Vertebrata	Long bone	1
39	16A	826	IIIa/b	E. Archaic		Kinosternidae	Peripheral	1
39	16A	826	IIIa/b	E. Archaic		Mammalia (Large/very large)	Indeterminate	1
39	16A	826	IIIa/b	E. Archaic		Mammalia (Medium)	Metapodial	1
39	16A	826	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	7
39	16A	826	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	3
39	16A	826	IIIa/b	E. Archaic		Testudinata	Humerus	1
39	16A	826	IIIa/b	E. Archaic		Vertebrata	Indeterminate	20
39	18	861	IIIa/b	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
39	18	861	IIIa/b	E. Archaic		Mammalia (Small)	Middle phalange	1
39	18	861	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	3
39	18	861	IIIa/b	E. Archaic		Testudinata	Shell fragment	2
39	18	861	IIIa/b	E. Archaic		Vertebrata	Indeterminate	34
39	19	874	IIIa	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
39	19	874	IIIa	E. Archaic		Small vertebrate, class ind.	Phalange	1
39	19	874	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	5
39	19	874	IIIa	E. Archaic		Testudinata	Shell fragment	2
39	19	874	IIIa	E. Archaic		Vertebrata	Indeterminate	21
39	20	896	IIIa	E. Archaic	231	Colubridae	Dorsal vertebra	1
39	20	896	IIIa	E. Archaic	231	Mammalia (Medium)	Permanent tooth	1
39	20	896	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
39	20	896	IIIa	E. Archaic	231	Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
39	20	896	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
39	20	896	IIIa	E. Archaic	231	<i>Sylvilagus</i> sp.	Humerus	1
39	20	896	IIIa	E. Archaic	231	Vertebrata	Indeterminate	19
39	21A	1008	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
39	21A	1008	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
39	21A	1008	IIIa	E. Archaic	231	Testudinata	Shell fragment	1
39	21A	1008	IIIa	E. Archaic	231	Vertebrata	Indeterminate	22
39	21B	1173	IIIa	E. Archaic	230	Mammalia (Medium/large)	Indeterminate	1
39	21B	1173	IIIa	E. Archaic	230	Medium/Large Vertebrata	Indeterminate	1
39	22A	1156	IIIa	E. Archaic	231	Colubridae	Dorsal vertebra	1
39	22A	1156	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
39	22A	1156	IIIa	E. Archaic	231	Mammalia (Small)	Permanent tooth	1
39	22A	1156	IIIa	E. Archaic	231	Mammalia (Small)	Ulna	1
39	22A	1156	IIIa	E. Archaic	231	Medium/Large Vertebrata	Indeterminate	4
39	22A	1156	IIIa	E. Archaic	231	Medium/Large Vertebrata	Long bone	2
39	22A	1156	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	7
39	22A	1156	IIIa	E. Archaic	231	<i>Sylvilagus</i> sp.	Humerus	1
39	22A	1156	IIIa	E. Archaic	231	Vertebrata	Indeterminate	32

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
39	22B	1074	IIIa	E. Archaic	230	Vertebrata	Indeterminate	4
39	23	1320	IIIa	E. Archaic	231	Colubridae	Dorsal vertebra	1
39	23	1320	IIIa	E. Archaic	231	Leporidae	Permanent tooth	1
39	23	1320	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	4
39	23	1320	IIIa	E. Archaic	231	Mammalia (Medium/large)	Long bone	1
39	23	1320	IIIa	E. Archaic	231	Medium/Large Vertebrata	Indeterminate	3
39	23	1320	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	6
39	23	1320	IIIa	E. Archaic	231	Vertebrata	Indeterminate	42
39	24	1529	IIIa	E. Archaic	231/245	<i>Lepus californicus</i>	Tibia	1
39	24	1529	IIIa	E. Archaic	231/245	Mammalia (Medium)	Radius	1
39	24	1529	IIIa	E. Archaic	231/245	Mammalia (Medium/large)	Indeterminate	6
39	24	1529	IIIa	E. Archaic	231/245	Mammalia (Medium/large)	Long bone	2
39	24	1529	IIIa	E. Archaic	231/245	Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
39	24	1529	IIIa	E. Archaic	231/245	Mammalia (Small)	Calcaneus	1
39	24	1529	IIIa	E. Archaic	231/245	Mammalia (Small)	Permanent tooth	1
39	24	1529	IIIa	E. Archaic	231/245	Mammalia (Small)	Proximal phalange	1
39	24	1529	IIIa	E. Archaic	231/245	<i>Neotoma</i> sp.	Permanent tooth	1
39	24	1529	IIIa	E. Archaic	231/245	Osteichthyes (Small)	Sagitta otolith	3
39	24	1529	IIIa	E. Archaic	231/245	<i>Sigmodon hispidus</i>	Permanent tooth	2
39	24	1529	IIIa	E. Archaic	231/245	Small/Medium Vertebrata	Long bone	14
39	24	1529	IIIa	E. Archaic	231/245	Testudinata	Shell fragment	3
39	24	1529	IIIa	E. Archaic	231/245	Vertebrata	Indeterminate	105
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	<i>Geomys</i> sp.	Permanent tooth	1
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Large)	Axis	1
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Medium)	Middle phalange	1
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Medium/large)	Indeterminate	1
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Medium/large)	Long bone	2
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Medium/large)	Permanent tooth	1
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Rodentia (Small/Medium)	Permanent tooth	1
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Serpentes	Dorsal vertebra	1
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Small/Medium Vertebrata	Indeterminate	1
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Small/Medium Vertebrata	Long bone	22
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Testudinata	Shell fragment	1
39	25	1595	II/IIIa	L. Paleo./E. Archaic	231/245	Vertebrata	Indeterminate	64
39	26	1859	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	7
39	26	1880	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
39	26	1880	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Permanent tooth	1
39	26	1880	II/IIIa	L. Paleo./E. Archaic		Osteichthyes (Small)	Sagitta otolith	1
39	26	1880	II/IIIa	L. Paleo./E. Archaic		Osteichthyes (Small)	Vertebra	1
39	26	1880	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	8
39	26	1880	II/IIIa	L. Paleo./E. Archaic		Testudinata	Humerus	1
39	26	1880	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	27
39	27	1901	II	L. Paleo.		cf. <i>Lepus californicus</i>	Ulna	1
39	27	1901	II	L. Paleo.		Leporidae	Permanent tooth	1
39	27	1901	II	L. Paleo.		Rodentia (Small)	Permanent tooth	1
39	27	1901	II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
39	27	1901	II	L. Paleo.		Small/Medium Vertebrata	Phalange	1
39	27	1901	II	L. Paleo.		Vertebrata	Indeterminate	26
39	28	1949	II	L. Paleo.		Leporidae	Tooth, perm./decid. ind.	1
39	28	1949	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
39	28	1949	II	L. Paleo.		Mammalia (Small)	Radius	1
39	28	1949	II	L. Paleo.		Small/Medium Vertebrata	Long bone	9
39	28	1949	II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
39	28	1949	II	L. Paleo.		Vertebrata	Indeterminate	41
39	29	1980	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
39	29	1980	II	L. Paleo.		Mammalia (Small)	Vertebra	2
39	29	1980	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
39	29	1980	II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
39	29	1980	II	L. Paleo.		Testudinata	Shell fragment	1
39	29	1980	II	L. Paleo.		Vertebrata	Indeterminate	22
39	30	1997	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
39	30	1997	II	L. Paleo.		Small vertebrae, class ind.	Vertebra	1
39	30	1997	II	L. Paleo.		Small/Medium Vertebrata	Long bone	13
39	30	1997	II	L. Paleo.		Vertebrata	Indeterminate	26
39	31	2018	II	L. Paleo.		Leporidae	Vertebra	1
39	31	2018	II	L. Paleo.		Mammalia (Small)	Caudal vertebra	1
39	31	2018	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
39	31	2018	II	L. Paleo.		Small/Medium Vertebrata	Long bone	21
39	31	2018	II	L. Paleo.		<i>Sylvilagus</i> sp.	Humerus	2
39	31	2018	II	L. Paleo.		Testudinata	Shell fragment	1
39	31	2018	II	L. Paleo.		Vertebrata	Indeterminate	56
39	32	2035	II	L. Paleo.		Carnivora	Metapodial	1
39	32	2035	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
39	32	2035	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
39	32	2035	II	L. Paleo.		Small/Medium Vertebrata	Long bone	16
39	32	2035	II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
39	32	2035	II	L. Paleo.		<i>Sylvilagus</i> sp.	Scapula	1
39	32	2035	II	L. Paleo.		Testudinata	Shell fragment	1
39	32	2035	II	L. Paleo.		Vertebrata	Indeterminate	49
39	33	2094	II	L. Paleo.		Carnivora	Tooth, perm./decid. ind.	1
39	33	2094	II	L. Paleo.		Leporidae	Permanent tooth	1
39	33	2094	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
39	33	2094	II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
39	33	2094	II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
39	33	2094	II	L. Paleo.		Testudinata	Shell fragment	1
39	33	2094	II	L. Paleo.		Vertebrata	Indeterminate	15
39	34	2112	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	6
39	34	2112	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
39	34	2112	II	L. Paleo.		Mammalia (Small)	Radius	1
39	34	2112	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
39	34	2112	II	L. Paleo.		Rodentia (Medium)	Permanent tooth	1
39	34	2112	II	L. Paleo.		Small/Medium Vertebrata	Long bone	15
39	34	2112	II	L. Paleo.		Vertebrata	Indeterminate	42
39	35	2122	Id/II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
39	35	2122	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
39	35	2122	Id/II	L. Paleo.		Mammalia (Small)	Scapula	1
39	35	2122	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
39	35	2122	Id/II	L. Paleo.		Vertebrata	Indeterminate	31
39	36	2275	Id/II	L. Paleo.		Vertebrata	Indeterminate	1
39	36A	2276	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
39	36A	2276	Id/II	L. Paleo.		Vertebrata	Indeterminate	14
39	36B	2277	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
39	36B	2277	Id/II	L. Paleo.		Vertebrata	Indeterminate	4
39	36B-3	2258	Id/II	L. Paleo.		Mammalia (Large/very large)	Indeterminate	1
39	37	2804	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
39	37	2804	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
39	37	2804	Id/II	L. Paleo.		Vertebrata	Indeterminate	4
39	38A	2792	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
39	38A	2792	Isi-c/Id	L. Paleo.		<i>Odocoileus</i> sp.	Antler	1
39	38A	2792	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Indeterminate	1
39	38A	2792	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	11
39	39	2748	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	2
39	39	2748	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	3
39	40	2737	Isi-c	L. Paleo.		Leporidae	Permanent tooth	1
39	40	2737	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
39	40	2737	Isi-c	L. Paleo.		Vertebrata	Indeterminate	7
39	41	2459	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
39	41	2459	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
39	41	2459	Isi-c	L. Paleo.		Vertebrata	Indeterminate	13
39	42	2431	Isi-c	L. Paleo.	260	Mammalia (Large)	Long bone	1
39	42	2752	Isi-c	L. Paleo.		Mammalia (Large)	Tooth, perm./decid. ind.	1
39	42	2752	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
39	42	2752	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	6
39	42	2752	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
39	43	2615	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
39	43	2615	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
39	43	2615	Icl/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	2
39	43	2615	Icl/Isi-c	Paleoindian		<i>Neotoma</i> sp.	Permanent tooth	1
39	43	2615	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
39	43	2615	Icl/Isi-c	Paleoindian		Testudinata	Shell fragment	1
39	43	2615	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	14
39	44	2590	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
39	44	2590	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	5
39	45	2496	Icl/Isi-c	Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
39	45	2496	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	12
39	45	2496	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
39	46	2523	Icl/Isi-c	Paleoindian		Mammalia (Medium)	Phalange	1
39	46	2523	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
39	46	2523	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	5
39	46	2523	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	12
39	47	2567	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
39	47	2567	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	4
39	48	2582	Icl	E. Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
39	48	2582	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
39	48	2582	Icl	E. Paleoindian		Vertebrata	Indeterminate	6
39	49	2758	Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
39	49	2758	Icl	E. Paleoindian		Vertebrata	Indeterminate	6
39	50	2856	Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
39	50	2856	Icl	E. Paleoindian		Vertebrata	Indeterminate	14
39	51	2815	Icl	E. Paleoindian		Vertebrata	Indeterminate	7
39	52	2807	Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
39	52	2807	Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	7
39	52	2807	Icl	E. Paleoindian		Vertebrata	Indeterminate	11
39	53	2806	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	16
39	53	2806	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	9
39	53	2806	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	31
39	54	2773	Igl/Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	38
39	54	2773	Igl/Isi	E. Paleoindian		Vertebrata	Indeterminate	17
39	55	2782	Igl/Isi	E. Paleoindian		Vertebrata	Indeterminate	1
39	56	2834	Igl/Isi	E. Paleoindian		Medium/Large Vertebrata	Long bone	1
41	20	906	IIIa/b	E. Archaic		Vertebrata	Indeterminate	2
41	21	923	IIIa	E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
41	21	923	IIIa	E. Archaic		Vertebrata	Indeterminate	2
41	22	957	IIIa	E. Archaic		Vertebrata	Indeterminate	4
41	24	1033	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
41	24	1033	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
41	24	1033	IIIa	E. Archaic		Vertebrata	Indeterminate	3
41	25	1130	IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
41	25	1130	IIIa	E. Archaic		Vertebrata	Indeterminate	5
41	26	1152	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	4
41	26	1152	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	3
41	26	1152	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
41	28	1216	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
41	28	1216	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
41	29	1262	II	L. Paleo.		Vertebrata	Indeterminate	3
42	17	764	IIIa/b	E. Archaic		Vertebrata	Indeterminate	1
42	18	204	IIIa/b	E. Archaic		Vertebrata	Indeterminate	1
42	21	856	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
42	21	856	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	2
42	21	856	IIIa	E. Archaic		Testudinata	Shell fragment	1
42	22	928	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
42	22	928	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	1
42	22	928	IIIa	E. Archaic		Vertebrata	Indeterminate	4
42	24	947	IIIa	E. Archaic		Vertebrata	Indeterminate	4
42	26	1096	IIIa	E. Archaic		Mammalia (Medium)	Distal phalange	1
42	26	1096	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
42	26	1096	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	3
42	26	1096	IIIa	E. Archaic		Vertebrata	Indeterminate	16
42	27	1073	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
42	27	1073	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
42	27	1073	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	8
42	28	1247	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Permanent tooth	1
42	28	1247	II/IIIa	L. Paleo./E. Archaic		Small vertebrate, class ind.	Distal phalange	1
42	28	1247	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
42	29	1360	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
42	29	1360	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
42	35	1709	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
42	50	2774	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	3
42	50	2774	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	4
42	51	2676	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
42	51	2847	Isi/Icl	E. Paleoindian		Leporidae	Permanent tooth	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
42	51	2847	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	21
42	51	2847	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
42	51	2847	Isi/Icl	E. Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1
42	51	2847	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	40
42	52	2842	Igl/Icl	E. Paleoindian		Leporidae	Permanent tooth	2
42	52	2842	Igl/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	8
42	52	2842	Igl/Icl	E. Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	3
42	52	2842	Igl/Icl	E. Paleoindian		Vertebrata	Indeterminate	10
42	53A	2705	Igl/Icl	E. Paleoindian		Mammalia (Medium)	Vertebra	1
42	53A	2705	Igl/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	8
42	53A	2705	Igl/Icl	E. Paleoindian		Serpentes	Dorsal vertebra	1
42	53A	2705	Igl/Icl	E. Paleoindian		Vertebrata	Indeterminate	1
42	53B	2849	Igl/Icl	E. Paleoindian		Vertebrata	Indeterminate	1
42	54B	2840	Igl	E. Paleoindian		Vertebrata	Indeterminate	1
42	55	2790	Igl	E. Paleoindian		Vertebrata	Indeterminate	1
43	0	2153	?	Unassigned		Medium/Large Vertebrata	Indeterminate	1
43	18	795	IIIa/b	E. Archaic		Vertebrata	Indeterminate	1
43	20	822	IIIa	E. Archaic	231	Vertebrata	Indeterminate	1
43	21	939	IIIa	E. Archaic	231	Vertebrata	Indeterminate	2
43	22	1006	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
43	22	1006	IIIa	E. Archaic	231	Mammalia (Small)	Astragalus	1
43	22	1006	IIIa	E. Archaic	231	Medium/Large Vertebrata	Indeterminate	1
43	22	1006	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	3
43	22	1006	IIIa	E. Archaic	231	Vertebrata	Indeterminate	6
43	24	1129	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	1
43	24	1129	IIIa	E. Archaic	231	Testudinata	Shell fragment	1
43	24	1129	IIIa	E. Archaic	231	Vertebrata	Indeterminate	7
43	25	1248	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
43	25	1248	IIIa	E. Archaic	231	Vertebrata	Indeterminate	8
43	26	1319	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
43	26	1319	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
43	26	1319	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
43	27	1399	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	7
43	27	1399	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
43	28	1412	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	3
43	28	1412	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	13
43	29	1647	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
43	29	1647	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
43	50	2816	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
43	51	2668	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	6
43	51	2668	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
43	51	2853	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	15
43	51	2853	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	11
43	51	2853	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	78
43	52	2690	Isi/Icl	E. Paleoindian		Mammalia (Large/very large)	Indeterminate	1
43	52	2838	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
43	53A	2696	Igl/Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
43	53A	2696	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	7
43	54A	2704	Igl/Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
43	54A	2704	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
43	55A	2780	Igl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
43	56B	2874	Igl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	5
44	17	760	?	E. Archaic		Small/Medium Vertebrata	Long bone	1
44	18	788	IIIa/b	E. Archaic		Vertebrata	Indeterminate	5
44	19	818	IIIa	E. Archaic	231	Vertebrata	Indeterminate	2
44	20	972	IIIa	E. Archaic	231	Mammalia (Medium/large)	Long bone	1
44	20	972	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	3
44	20	972	IIIa	E. Archaic	231	Vertebrata	Indeterminate	2
44	21	1079	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
44	21	1079	IIIa	E. Archaic	231	Vertebrata	Indeterminate	2
44	22	1080	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
44	22	1080	IIIa	E. Archaic	231	Mammalia (Small)	Alveolar ridge fragment	1
44	22	1080	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
44	22	1080	IIIa	E. Archaic	231	Vertebrata	Indeterminate	6
44	24	1486	IIIa	E. Archaic	245	Small/Medium Vertebrata	Long bone	3
44	24	1486	IIIa	E. Archaic	245	Testudinata	Shell fragment	1
44	24	1486	IIIa	E. Archaic	245	Vertebrata	Indeterminate	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
44	25	1567	IIIa	E. Archaic	245	<i>Geomys</i> sp.	Permanent tooth	1
44	25	1567	IIIa	E. Archaic	245	Mammalia (Medium)	Permanent tooth	1
44	25	1567	IIIa	E. Archaic	245	Small/Medium Vertebrata	Long bone	4
44	25	1567	IIIa	E. Archaic	245	<i>Sylvilagus</i> sp.	Astragalus	1
44	25	1567	IIIa	E. Archaic	245	Vertebrata	Indeterminate	4
44	26	1651	II/IIIa	L. Paleo./E. Archaic	245	Leporidae	Permanent tooth	2
44	26	1651	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	1
44	26	1651	II/IIIa	L. Paleo./E. Archaic	245	Vertebrata	Indeterminate	4
44	27	1766	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Long bone	1
44	27	1766	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
44	27	1766	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	8
44	28A	1824	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Metapodial	1
44	28A	1824	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
44	28A	1824	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
44	28B	1800	II/IIIa	L. Paleo./E. Archaic	248	Mammalia (Medium/large)	Long bone	1
44	28B	1800	II/IIIa	L. Paleo./E. Archaic	248	Small/Medium Vertebrata	Long bone	1
44	28B	1800	II/IIIa	L. Paleo./E. Archaic	248	Vertebrata	Indeterminate	2
44	29A	1855	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
44	29B	1898	II/IIIa	L. Paleo./E. Archaic	248	Vertebrata	Indeterminate	1
44	41	2320	?	Unassigned		Medium/Large Vertebrata	Indeterminate	2
44	41	2320	?	Unassigned		Small/Medium Vertebrata	Long bone	1
44	41	2320	?	Unassigned		Vertebrata	Indeterminate	10
44	50	2850	Isi/Icl	E. Paleoindian		Leporidae	Permanent tooth	1
44	50	2850	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
44	51	2852	Isi/Icl	E. Paleoindian		Leporidae	Permanent tooth	1
44	51	2852	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	9
44	51	2852	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
44	51	2852	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
44	52	2855	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
44	52	2863	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	4
44	53	2706	Isi/Icl	E. Paleoindian		<i>Lepus californicus</i>	Permanent tooth	1
44	53	2706	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
44	53	2706	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Long bone	9
44	53	2706	Isi/Icl	E. Paleoindian		Mammalia (Small)	Permanent tooth	1
44	53	2706	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
44	53	2706	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	3
44	54A	2708	Igl/Isi/Icl	E. Paleoindian		<i>Lepus californicus</i>	Mandible	1
44	54A	2708	Igl/Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	3
44	54A	2708	Igl/Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	5
44	55A	2843	Igl/Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	2
44	55A	2843	Igl/Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
44	56	2791	Igl	E. Paleoindian		Vertebrata	Indeterminate	2
45	17	811	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	3
45	17	811	IIIa	E. Archaic		Vertebrata	Indeterminate	8
45	18	838	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
45	18	838	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
45	18	838	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
45	19	879	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
45	19	879	II/IIIa	L. Paleo./E. Archaic		Rodentia (Small)	Permanent tooth	1
45	19	879	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	5
45	19	879	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	9
45	20	895	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	11
45	20	895	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Long bone	1
45	21	927	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
45	21	927	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
45	21	927	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
45	21	927	II	L. Paleo.		Vertebrata	Indeterminate	15
45	21	927	II	L. Paleo.		Viperidae	Dorsal vertebra	1
45	22	958	II	L. Paleo.		Leporidae	Permanent tooth	2
45	22	958	II	L. Paleo.		Medium vertebrate, class ind.	Phalange	1
45	22	958	II	L. Paleo.		Small vertebrate, class ind.	Proximal phalange	1
45	22	958	II	L. Paleo.		Small/Medium Vertebrata	Long bone	5
45	22	958	II	L. Paleo.		Squamata	Dorsal vertebra	1
45	22	958	II	L. Paleo.		Vertebrata	Indeterminate	11
45	23	1009	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
45	23	1009	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
45	23	1009	II	L. Paleo.		Vertebrata	Indeterminate	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
45	24	1058	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
45	24	1058	II	L. Paleo.		Mammalia (Small)	Calcaneus	1
45	24	1058	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
45	24	1058	II	L. Paleo.		Vertebrata	Indeterminate	13
45	26	1105	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
45	26	1105	II	L. Paleo.		Vertebrata	Indeterminate	4
45	27	1141	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
45	27	1141	II	L. Paleo.		Osteichthyes (Small)	Vertebra	1
45	27	1141	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metatarsal 5	1
45	27	1141	II	L. Paleo.		Vertebrata	Indeterminate	6
45	28	1155	II	L. Paleo.		Vertebrata	Indeterminate	1
45	29	1287	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
45	29	1287	II	L. Paleo.		Vertebrata	Indeterminate	4
45	39	1653	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
46	17	773	IIIa	E. Archaic		Colubridae	Dorsal vertebra	1
46	17	773	IIIa	E. Archaic		<i>Kinosternon</i> sp.	Peripheral	1
46	17	773	IIIa	E. Archaic		Mammalia (Small)	Permanent tooth	1
46	17	773	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	4
46	17	773	IIIa	E. Archaic		Vertebrata	Indeterminate	21
46	18	791	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
46	18	791	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	4
46	18	791	IIIa	E. Archaic		Testudinata	Shell fragment	2
46	18	791	IIIa	E. Archaic		Vertebrata	Indeterminate	20
46	19	824	II/IIIa	L. Paleo./E. Archaic		Mammalia (Large)	Long bone	1
46	19	824	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
46	19	824	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Distal phalange	1
46	19	824	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
46	19	824	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	14
46	20A	1290	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Mandible	1
46	20A	1290	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
46	20A	1290	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
46	20A	1290	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	4
46	21A	911	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
46	21A	911	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Permanent tooth	1
46	21A	911	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	7
46	21A	911	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	18
46	21B	925	II/IIIa	L. Paleo./E. Archaic	226	<i>Sylvilagus</i> sp.	Scapula	1
46	21B	925	II/IIIa	L. Paleo./E. Archaic	226	Vertebrata	Indeterminate	1
46	22	934	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
46	22	934	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
46	22	934	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
46	23	949	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Permanent tooth	1
46	23	949	II/IIIa	L. Paleo./E. Archaic		Micro vertebrate, class ind.	Vertebra	1
46	23	949	II/IIIa	L. Paleo./E. Archaic		<i>Neotoma</i> sp.	Permanent tooth	1
46	23	949	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	16
46	23	949	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	42
46	24	1097	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
46	24	1097	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
46	24	1097	II	L. Paleo.		Vertebrata	Indeterminate	12
46	25	1112	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
46	25	1112	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
46	25	1112	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
46	25	1112	II	L. Paleo.		Small/Medium Vertebrata	Long bone	23
46	25	1112	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metacarpal 2	1
46	25	1112	II	L. Paleo.		Vertebrata	Indeterminate	25
46	26	1134	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
46	26	1134	II	L. Paleo.		Vertebrata	Indeterminate	15
46	27A	1158	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
46	27A	1158	II	L. Paleo.		Testudinata	Shell fragment	1
46	27A	1158	II	L. Paleo.		Vertebrata	Indeterminate	4
46	28A	2174	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	5
46	28A	2174	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
46	28A	2174	II	L. Paleo.		Vertebrata	Indeterminate	10
46	29	1207	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Long bone	1
46	29	1207	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
46	29	1207	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	4
46	30	1288	Isi-c/II	L. Paleo.		Small vertebrate, class ind.	Phalange	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
46	30	1288	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	18
46	31	1318	Isi-c/II	L. Paleo.		Mammalia (Medium)	Long bone	1
46	31	1318	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
46	31	1318	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	3
46	32	1337	Isi-c	L. Paleo.		Mammalia (Large)	Long bone	1
46	32	1337	Isi-c	L. Paleo.		Mammalia (Medium)	Metapodial	1
46	32	1337	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	5
46	32	1337	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	7
46	32	1337	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Humerus	1
46	32	1337	Isi-c	L. Paleo.		Vertebrata	Indeterminate	8
46	33	1387	Isi-c	L. Paleo.		<i>Lepus californicus</i>	Calcaneus	1
46	33	1387	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
46	33	1387	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
46	33	1387	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	5
46	33	1387	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	2
46	33	1387	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	13
46	33	1387	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Femur	1
46	33	1387	Isi-c	L. Paleo.		Vertebrata	Indeterminate	17
46	34	1285	Isi-c	L. Paleo.		Leporidae	Permanent tooth	2
46	34	1285	Isi-c	L. Paleo.		Leporidae	Tibia	1
46	34	1285	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
46	34	1285	Isi-c	L. Paleo.		Serpentes	Dorsal vertebra	2
46	34	1285	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	8
46	34	1285	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
46	34	1285	Isi-c	L. Paleo.		Vertebrata	Indeterminate	24
46	35	1441	Isi/Isi-c	Paleoindian		Leporidae	Permanent tooth	1
46	35	1441	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	4
46	35	1441	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	2
46	35	1441	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
46	35	1441	Isi/Isi-c	Paleoindian		Mammalia (Micro)	Femur	1
46	35	1441	Isi/Isi-c	Paleoindian		Mammalia (Micro)	Permanent tooth	1
46	35	1441	Isi/Isi-c	Paleoindian		Mammalia (Micro)	Tibia	1
46	35	1441	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	4
46	35	1441	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	4
46	35	1441	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	26
46	35	1441	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Radius	1
46	35	1441	Isi/Isi-c	Paleoindian		Testudinata	Shell fragment	1
46	35	1441	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	60
46	36	1723	Isi/Isi-c	Paleoindian		Leporidae	Permanent tooth	1
46	36	1723	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
46	36	1723	Isi/Isi-c	Paleoindian		Mammalia (Small)	Femur	1
46	36	1723	Isi/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	3
46	36	1723	Isi/Isi-c	Paleoindian		Mammalia (Small/medium)	Alveolar ridge fragment	1
46	36	1723	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	9
46	36	1723	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
46	36	1723	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	15
46	36	1723	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Humerus	1
46	36	1723	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Ulna	1
46	36	1723	Isi/Isi-c	Paleoindian		Testudinata	Shell fragment	2
46	36	1723	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	50
46	37	1797	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	6
46	37	1797	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
46	37	1797	Isi/Isi-c	Paleoindian		Small vertebrate, class ind.	Proximal phalange	1
46	37	1797	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	5
46	37	1797	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1
46	37	1797	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	29
46	37	1797	Isi/Isi-c	Paleoindian		Viperidae	Dorsal vertebra	1
46	38	1857	Isi/Isi-c	Paleoindian		Colubridae	Dorsal vertebra	1
46	38	1857	Isi/Isi-c	Paleoindian		Mammalia (Small)	Patella	1
46	38	1857	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
46	38	1857	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	6
46	38	1857	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	27
46	39	1925	Isi/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	1
46	39	1925	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	4
46	39	1925	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Long bone	1
46	39	1925	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
46	39	1925	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
46	39	1925	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	23
46	40	2109	Isi/Isi-c	Paleoindian		Leporidae	Cranium	1
46	40	2109	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	5
46	40	2109	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
46	40	2109	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
46	40	2109	Isi/Isi-c	Paleoindian		Mammalia (Small)	Calcaneus	1
46	40	2109	Isi/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	1
46	40	2109	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	6
46	40	2109	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	33
46	41	2111	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Cranium	1
46	41	2111	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	4
46	41	2111	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
46	41	2111	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
46	41	2111	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	5
46	41	2111	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Humerus	1
46	41	2111	Isi/Isi-c	Paleoindian		Testudinata	Shell fragment	1
46	41	2111	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	15
46	42A	2608	Isi	E. Paleoindian		Vertebrata	Indeterminate	4
46	43	2149	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
46	44	2828	Isi	E. Paleoindian		Mammalia (Medium/large)	Long bone	1
46	44	2828	Isi	E. Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
46	44	2828	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
46	45	2700	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
46	45	2700	Isi	E. Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	1
46	45	2700	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
46	46	2601	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
46	48	2306	Isi	E. Paleoindian		Mammalia (Medium/large)	Long bone	1
46	48	2796	Isi	E. Paleoindian		<i>Ondatra zibethicus</i>	Permanent tooth	1
46	48	2796	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
46	49	2637	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
46	50	2744	Isi	E. Paleoindian		Vertebrata	Indeterminate	3
47	14	786	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
47	14	786	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	2
47	14	786	IIIa	E. Archaic		<i>Sylvilagus</i> sp.	Ulna	1
47	14	786	IIIa	E. Archaic		Vertebrata	Indeterminate	2
47	18	829	IIIa	E. Archaic		Mammalia (Small)	Femur	1
47	18	829	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	2
47	18	829	IIIa	E. Archaic		Vertebrata	Indeterminate	11
47	19	875	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	2
47	19	875	IIIa	E. Archaic		Vertebrata	Indeterminate	4
47	20A	878	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
47	20A	878	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
47	20B	898	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
47	20B	898	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
47	21	903	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
47	21	903	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
47	21	903	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	9
47	22	930	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Permanent tooth	1
47	22	930	II/IIIa	L. Paleo./E. Archaic		Serpentes	Dorsal vertebra	1
47	22	930	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	4
47	22	930	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Mandible	1
47	22	930	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
47	22	930	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
47	23	943	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	1
47	23	943	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	5
47	23	943	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	7
47	24	964	II	L. Paleo.		Osteichthyes (Small)	Vertebra	1
47	24	964	II	L. Paleo.		Small vertebrate, class ind.	Vertebra	1
47	24	964	II	L. Paleo.		Small/Medium Vertebrata	Indeterminate	2
47	24	964	II	L. Paleo.		Vertebrata	Indeterminate	3
47	25	983	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
47	25	983	II	L. Paleo.		Vertebrata	Indeterminate	8
47	26	1004	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
47	26	1004	II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
47	26	1004	II	L. Paleo.		Vertebrata	Indeterminate	12
47	27	559	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
47	27	559	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
47	27	559	II	L. Paleo.		Vertebrata	Indeterminate	1
47	28	1218	Isi-c/II	L. Paleo.		Medium vertebrate, class ind.	Proximal phalange	1
47	28	1218	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
47	28	1218	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	5
47	29	1286	Isi-c/II	L. Paleo.		Leporidae	Permanent tooth	1
47	29	1286	Isi-c/II	L. Paleo.		Mammalia (Small)	Metacarpal 2	1
47	29	1286	Isi-c/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
47	29	1286	Isi-c/II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
47	29	1286	Isi-c/II	L. Paleo.		Vertebrata	Indeterminate	12
47	35	1449	Isi/Isi-c	Paleoindian		Leporidae	Humerus	1
47	35	1449	Isi/Isi-c	Paleoindian		Mammalia (Large)	Indeterminate	1
47	35	1449	Isi/Isi-c	Paleoindian		Mammalia (Large)	Middle phalange	1
47	35	1449	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
47	35	1449	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	41
48	17	492	IIIa	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
48	17	492	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	5
48	17	492	IIIa	E. Archaic		Vertebrata	Indeterminate	9
48	18	837	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
48	18	837	IIIa	E. Archaic	231	Vertebrata	Indeterminate	2
48	19	917	IIIa	E. Archaic	231	Carnivora	Permanent tooth	1
48	19	917	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
48	19	917	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	5
48	19	917	IIIa	E. Archaic	231	Vertebrata	Indeterminate	5
48	20	991	IIIa	E. Archaic	231	Mammalia (Medium)	Radius	1
48	20	991	IIIa	E. Archaic	231	Medium/Large Vertebrata	Indeterminate	2
48	20	991	IIIa	E. Archaic	231	Small vertebrate, class ind.	Distal phalange	1
48	20	991	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	4
48	20	991	IIIa	E. Archaic	231	Vertebrata	Indeterminate	11
48	21	1005	II/IIIa	L. Paleo./E. Archaic		Colubridae	Dorsal vertebra	1
48	21	1005	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Permanent tooth	1
48	21	1005	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	4
48	21	1005	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	18
48	22	1056	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Scapula	1
48	22	1056	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
48	22	1056	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	7
48	22	1056	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	26
48	23	1095	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	25
48	23	1095	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
48	23	1095	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
48	24	1137	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	1
48	24	1137	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Phalange	1
48	24	1137	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	2
48	24	1137	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
48	24	1137	II/IIIa	L. Paleo./E. Archaic		Testudinata	Shell fragment	1
48	24	1137	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	8
48	25	1157	II/IIIa	L. Paleo./E. Archaic		Leporidae	Permanent tooth	1
48	25	1157	II/IIIa	L. Paleo./E. Archaic		Serpentes	Dorsal vertebra	1
48	25	1157	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
48	25	1157	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	8
48	26	1166	II/IIIa	L. Paleo./E. Archaic		Leporidae	Calcaneus	1
48	26	1166	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
48	27	1062	II	L. Paleo.		Vertebrata	Indeterminate	2
48	28	1208	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
48	28	1208	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
48	28	1208	II	L. Paleo.		Vertebrata	Indeterminate	14
48	29	1264	II	L. Paleo.	236	Small/Medium Vertebrata	Long bone	4
48	29	1264	II	L. Paleo.	236	Vertebrata	Indeterminate	7
48	30A	1303	II	L. Paleo.		Vertebrata	Indeterminate	2
48	31A	1390	Id/II	L. Paleo.		Colubridae	Dorsal vertebra	1
48	31A	1390	Id/II	L. Paleo.		Vertebrata	Indeterminate	19
49	17	761	IIIa	E. Archaic		Colubridae	Dorsal vertebra	1
49	17	761	IIIa	E. Archaic		Mammalia (Small)	Proximal phalange	1
49	17	761	IIIa	E. Archaic		Vertebrata	Indeterminate	5
49	18	815	IIIa	E. Archaic		Vertebrata	Indeterminate	6
49	19	864	IIIa	E. Archaic	231	Leporidae	Metacarpal 2	1
49	19	864	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
49	19	864	IIIa	E. Archaic	231	Small vertebrate, class ind.	Ulna	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
49	19	864	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
49	19	864	IIIa	E. Archaic	231	Vertebrata	Indeterminate	20
49	20	1021	IIIa	E. Archaic	231	Mammalia (Medium)	Permanent tooth	1
49	20	1021	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
49	20	1021	IIIa	E. Archaic	231	Medium/Large Vertebrata	Long bone	1
49	20	1021	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	4
49	20	1021	IIIa	E. Archaic	231	Vertebrata	Indeterminate	9
49	21	1132	IIIa	E. Archaic	231	Mammalia (Medium/large)	Long bone	4
49	21	1132	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
49	21	1132	IIIa	E. Archaic	231	Vertebrata	Indeterminate	9
49	22	1143	II/IIIa	L. Paleo./E. Archaic	231	Colubridae	Dorsal vertebra	1
49	22	1143	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium)	Permanent tooth	1
49	22	1143	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
49	22	1143	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
49	22	1143	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Small)	Ulna	1
49	22	1143	II/IIIa	L. Paleo./E. Archaic	231	Medium/Large Vertebrata	Indeterminate	4
49	22	1143	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	7
49	22	1143	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	28
49	23	1221	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	14
49	23	1221	II/IIIa	L. Paleo./E. Archaic	231	<i>Sylvilagus</i> sp.	Radius	1
49	23	1221	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	16
49	24	1278	II/IIIa	L. Paleo./E. Archaic	231	Anura	Humerus	1
49	24	1278	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium)	Long bone	2
49	24	1278	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Medium/large)	Indeterminate	1
49	24	1278	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	15
49	25	2175	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Proximal phalange	2
49	25	2175	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Radius	1
49	25	2175	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
49	25	2175	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	12
49	26	1071	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
49	26	1071	II	L. Paleo.		Vertebrata	Indeterminate	17
49	27	1427	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
49	27	1427	II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
49	27	1427	II	L. Paleo.		Vertebrata	Indeterminate	15
49	28	1472	II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
49	28	1472	II	L. Paleo.		<i>Sylvilagus</i> sp.	Ulna	1
49	28	1472	II	L. Paleo.		Vertebrata	Indeterminate	22
49	29	1503	II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
49	29	1503	II	L. Paleo.		Vertebrata	Indeterminate	3
49	30	1591	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
49	30	1591	II	L. Paleo.		Vertebrata	Indeterminate	2
49	32A	1785	Id/II	L. Paleo.		Mammalia (Small)	Proximal phalange	1
49	32A	1785	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	5
49	32A	1785	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Fourth tarsal	1
49	32A	1785	Id/II	L. Paleo.		Vertebrata	Indeterminate	28
50	16	812	IIIa	E. Archaic		Vertebrata	Indeterminate	4
50	17	854	IIIa	E. Archaic		Vertebrata	Indeterminate	3
50	19	920	IIIa	E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
50	19	920	IIIa	E. Archaic		Small vertebrate, class ind.	Proximal phalange	1
50	19	920	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	3
50	19	920	IIIa	E. Archaic		Vertebrata	Indeterminate	21
50	20	965	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	3
50	20	965	IIIa	E. Archaic	231	Vertebrata	Indeterminate	4
50	21	1088	IIIa	E. Archaic	231	Medium/Large Vertebrata	Indeterminate	1
50	21	1088	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	5
50	21	1088	IIIa	E. Archaic	231	Vertebrata	Indeterminate	6
50	22	1072	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	3
50	22	1072	IIIa	E. Archaic	231	Vertebrata	Indeterminate	14
50	23	1343	IIIa	E. Archaic	231	Mammalia (Large)	Tooth, perm./decid. ind.	1
50	23	1343	IIIa	E. Archaic	231	Vertebrata	Indeterminate	8
50	24A	1596	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Long bone	1
50	24A	1596	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
50	24A	1596	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Caudal vertebra	1
50	24A	1596	II/IIIa	L. Paleo./E. Archaic		Testudinata	Peripheral	1
50	24A	1596	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	10
50	24B	1589	II/IIIa	L. Paleo./E. Archaic	181/231	Medium/Large Vertebrata	Indeterminate	3
50	24B	1589	II/IIIa	L. Paleo./E. Archaic	181/231	Vertebrata	Indeterminate	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
50	25A	1670	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium)	Cranium	1
50	25A	1670	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
50	25A	1670	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
50	25A	1670	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	12
50	25B	1671	II/IIIa	L. Paleo./E. Archaic	181/231	Mammalia (Large)	Indeterminate	1
50	25B	1671	II/IIIa	L. Paleo./E. Archaic	181/231	Small/Medium Vertebrata	Long bone	1
50	25B	1671	II/IIIa	L. Paleo./E. Archaic	181/231	Vertebrata	Indeterminate	1
50	26A	1701	II/IIIa	L. Paleo./E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
50	26A	1701	II/IIIa	L. Paleo./E. Archaic		Osteichthyes (Small)	Vertebra	1
50	26A	1701	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	6
50	26A	1701	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	16
50	26B	1676	II/IIIa	L. Paleo./E. Archaic	181/231	Mammalia (Medium/large)	Long bone	1
50	26B	1676	II/IIIa	L. Paleo./E. Archaic	181/231	Small/Medium Vertebrata	Long bone	3
50	26B	1676	II/IIIa	L. Paleo./E. Archaic	181/231	Vertebrata	Indeterminate	4
50	27A	1745	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
50	27A	1745	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
50	27A	1745	II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
50	27A	1745	II	L. Paleo.		Testudinata	Neural	1
50	27A	1745	II	L. Paleo.		Vertebrata	Indeterminate	21
50	27B	1705	II	L. Paleo.		Colubridae	Dorsal vertebra	1
50	27B	1705	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
50	27B	1705	II	L. Paleo.		Vertebrata	Indeterminate	11
50	27C	1706	II	L. Paleo.	184/260	Small/Medium Vertebrata	Long bone	6
50	27C	1706	II	L. Paleo.	184/260	Vertebrata	Indeterminate	12
50	28	1630	II	L. Paleo.		Mammalia (Small)	Caudal vertebra	1
50	28	1630	II	L. Paleo.		Small/Medium Vertebrata	Long bone	9
50	28	1630	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
50	28	1630	II	L. Paleo.		Vertebrata	Indeterminate	8
50	29	1803	II	L. Paleo.		Medium vertebrate, class ind.	Phalange	1
50	29	1803	II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
50	29	1803	II	L. Paleo.		Vertebrata	Indeterminate	12
50	30A	1827	II	L. Paleo.		Leporidae	Permanent tooth	1
50	30A	1827	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
50	30A	1827	II	L. Paleo.		Vertebrata	Indeterminate	21
50	30B	1825	II	L. Paleo.	249	Small/Medium Vertebrata	Long bone	1
50	31A	1853	II	L. Paleo.		Mammalia (Medium)	Femur	1
50	31A	1853	II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
50	31A	1853	II	L. Paleo.		Vertebrata	Indeterminate	8
50	31B	1852	II	L. Paleo.	249	Vertebrata	Indeterminate	1
50	32A	1896	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
50	32A	1896	II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
50	32A	1896	II	L. Paleo.		Vertebrata	Indeterminate	13
50	32B	1877	II	L. Paleo.	249	Osteichthyes (Small)	Vertebra	1
50	32B	1877	II	L. Paleo.	249	Small/Medium Vertebrata	Long bone	6
50	32B	1877	II	L. Paleo.	249	Testudinata	Humerus	1
50	32B	1877	II	L. Paleo.	249	Vertebrata	Indeterminate	8
51	16	797	IIIa/b	E. Archaic		Mammalia (Medium)	Alveolar ridge fragment	1
51	16	797	IIIa/b	E. Archaic		Mammalia (Medium)	Permanent tooth	1
51	16	797	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
51	16	797	IIIa/b	E. Archaic		Mammalia (Small)	Caudal vertebra	1
51	17	832	IIIa	E. Archaic		Vertebrata	Indeterminate	12
51	19	942	IIIa	E. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
51	19	942	IIIa	E. Archaic		Mammalia (Micro)	Tibia	1
51	19	942	IIIa	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
51	19	942	IIIa	E. Archaic		Small/Medium Vertebrata	Long bone	4
51	19	942	IIIa	E. Archaic		Vertebrata	Indeterminate	13
51	20	1049	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	4
51	20	1049	IIIa	E. Archaic	231	Vertebrata	Indeterminate	4
51	21	1160	IIIa	E. Archaic	181/231	Leporidae	Permanent tooth	1
51	21	1160	IIIa	E. Archaic	181/231	Small/Medium Vertebrata	Long bone	4
51	21	1160	IIIa	E. Archaic	181/231	Vertebrata	Indeterminate	6
51	22	1034	IIIa	E. Archaic	181/231	Vertebrata	Indeterminate	4
51	24	1930	IIIa	E. Archaic	181/231	Vertebrata	Indeterminate	6
51	26	1971	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	1
51	26	1971	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	2
51	27A	2006	II/IIIa	L. Paleo./E. Archaic		Rodentia (Small)	Permanent tooth	1
51	27A	2006	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
51	27A	2006	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
51	27A	2762	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	3
51	27A	2762	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
51	27B	2007	II/IIIa	L. Paleo./E. Archaic	249	Mammalia (Medium/large)	Indeterminate	1
51	27B	2007	II/IIIa	L. Paleo./E. Archaic	249	Vertebrata	Indeterminate	4
51	28A	2026	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
51	28A	2026	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
51	28B	2034	II/IIIa	L. Paleo./E. Archaic	249	Vertebrata	Indeterminate	1
51	28D	2499	II/IIIa	L. Paleo./E. Archaic	249	Carnivora	Distal phalange	1
51	28E	2581	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	3
51	29A	2062	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
51	30A	2063	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	2
51	30B	2064	II/IIIa	L. Paleo./E. Archaic	249	Artiodactyla	Permanent tooth	1
51	30B	2064	II/IIIa	L. Paleo./E. Archaic	249	Small/Medium Vertebrata	Long bone	1
51	30B	2064	II/IIIa	L. Paleo./E. Archaic	249	Vertebrata	Indeterminate	3
51	31A	2069	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
51	31A	2078	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
51	31A	2078	II	L. Paleo.		Vertebrata	Indeterminate	2
51	31B	2079	II	L. Paleo.	249	<i>Sylvilagus</i> sp.	Permanent tooth	1
51	31B	2079	II	L. Paleo.	249	Vertebrata	Indeterminate	4
52	15A	711	IIIa/b	E. Archaic		Colubridae	Dorsal vertebra	1
52	15A	711	IIIa/b	E. Archaic		<i>Geomys</i> sp.	Permanent tooth	1
52	15A	711	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	5
52	15A	711	IIIa/b	E. Archaic		Mammalia (Small)	Proximal phalange	1
52	15A	711	IIIa/b	E. Archaic		Medium/Large Vertebrata	Indeterminate	1
52	15A	711	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	6
52	15A	711	IIIa/b	E. Archaic		Vertebrata	Indeterminate	17
52	15B	138	IIIa/b	E. Archaic	220	Small/Medium Vertebrata	Long bone	1
52	15B	138	IIIa/b	E. Archaic	220	Vertebrata	Indeterminate	1
52	15B	774	IIIa/b	E. Archaic	220	Vertebrata	Indeterminate	2
52	16A	746	IIIa/b	E. Archaic		Mammalia (Medium/large)	Indeterminate	4
52	16A	746	IIIa/b	E. Archaic		Medium/Large Vertebrata	Long bone	2
52	16A	746	IIIa/b	E. Archaic		Vertebrata	Indeterminate	9
52	16A	770	IIIa/b	E. Archaic		<i>Odocoileus</i> sp.	Astragalus	1
52	16B	139	IIIa/b	E. Archaic	220	<i>Sylvilagus</i> sp.	Astragalus	1
52	16B	139	IIIa/b	E. Archaic	220	Vertebrata	Indeterminate	1
52	17	807	IIIa/b	E. Archaic		Small/Medium Vertebrata	Long bone	2
52	17	807	IIIa/b	E. Archaic		Vertebrata	Indeterminate	7
52	19	850	IIIa	E. Archaic		Testudinata	Shell fragment	1
52	19	850	IIIa	E. Archaic		Vertebrata	Indeterminate	4
52	20	877	IIIa	E. Archaic	231	Medium vertebrate, class ind.	Indeterminate	1
52	20	877	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	1
52	20	877	IIIa	E. Archaic	231	Vertebrata	Indeterminate	36
52	21	910	IIIa	E. Archaic	231	Medium/Large Vertebrata	Indeterminate	3
52	21	910	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	2
52	21	910	IIIa	E. Archaic	231	Testudinata	Shell fragment	1
52	21	910	IIIa	E. Archaic	231	Vertebrata	Indeterminate	25
52	22	950	IIIa	E. Archaic	231	Leporidae	Permanent tooth	1
52	22	950	IIIa	E. Archaic	231	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
52	22	950	IIIa	E. Archaic	231	Medium/Large Vertebrata	Indeterminate	3
52	22	950	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	5
52	22	950	IIIa	E. Archaic	231	Vertebrata	Indeterminate	34
52	23	1098	IIIa	E. Archaic	231	<i>Geomys</i> sp.	Tibia	1
52	23	1098	IIIa	E. Archaic	231	<i>Lepus californicus</i>	Calcaneus	1
52	23	1098	IIIa	E. Archaic	231	Mammalia (Medium)	Metapodial	1
52	23	1098	IIIa	E. Archaic	231	Mammalia (Medium)	Middle phalange	1
52	23	1098	IIIa	E. Archaic	231	Mammalia (Medium/large)	Indeterminate	2
52	23	1098	IIIa	E. Archaic	231	Medium/Large Vertebrata	Long bone	2
52	23	1098	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	8
52	23	1098	IIIa	E. Archaic	231	Testudinata	Shell fragment	1
52	23	1098	IIIa	E. Archaic	231	Vertebrata	Indeterminate	50
52	24	1462	II/IIIa	L. Paleo./E. Archaic	245	Medium/Large Vertebrata	Indeterminate	1
52	24	1462	II/IIIa	L. Paleo./E. Archaic	245	Osteichthyes (Small)	Spine	1
52	24	1462	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	3
52	24	1464	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Small)	Metapodial	1
52	24	1464	II/IIIa	L. Paleo./E. Archaic	231/245	Small/Medium Vertebrata	Long bone	5
52	24	1464	II/IIIa	L. Paleo./E. Archaic	231/245	Vertebrata	Indeterminate	9

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
52	24	1648	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Medium/large)	Indeterminate	1
52	24	1648	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
52	24	1648	II/IIIa	L. Paleo./E. Archaic	231/245	Small/Medium Vertebrata	Long bone	7
52	24	1648	II/IIIa	L. Paleo./E. Archaic	231/245	Vertebrata	Indeterminate	32
52	25A	1578	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	3
52	25A	1578	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
52	25B	1744	II/IIIa	L. Paleo./E. Archaic	231/245	Leporidae	Permanent tooth	1
52	25B	1744	II/IIIa	L. Paleo./E. Archaic	231/245	Mammalia (Medium)	Phalange	1
52	25B	1744	II/IIIa	L. Paleo./E. Archaic	231/245	Small/Medium Vertebrata	Long bone	12
52	25B	1744	II/IIIa	L. Paleo./E. Archaic	231/245	<i>Sylvilagus</i> sp.	Permanent tooth	1
52	25B	1744	II/IIIa	L. Paleo./E. Archaic	231/245	Testudinata	Carapace fragment ind.	1
52	25B	1744	II/IIIa	L. Paleo./E. Archaic	231/245	Testudinata	Pleural	1
52	25B	1744	II/IIIa	L. Paleo./E. Archaic	231/245	Testudinata	Shell fragment	1
52	25B	1744	II/IIIa	L. Paleo./E. Archaic	231/245	Vertebrata	Indeterminate	23
52	26A	1678	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	1
52	26A	1678	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
52	26A	1678	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	3
52	26A	1678	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	5
52	26A	1826	II/IIIa	L. Paleo./E. Archaic		Mammalia (Micro)	Humerus	1
52	26A	1826	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Calcaneus	1
52	26A	1826	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Cranium	1
52	26A	1826	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Femur	2
52	26A	1826	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	1
52	26A	1826	II/IIIa	L. Paleo./E. Archaic		Serpentes	Dorsal vertebra	1
52	26A	1826	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	10
52	26A	1826	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Metatarsal 3	1
52	26A	1826	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	17
52	26B	1654	II/IIIa	L. Paleo./E. Archaic	245	Mammalia (Small)	Calcaneus	1
52	26B	1654	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	4
52	26B	1831	II/IIIa	L. Paleo./E. Archaic	231	Mammalia (Large)	Indeterminate	1
52	26B	1831	II/IIIa	L. Paleo./E. Archaic	231	Small/Medium Vertebrata	Long bone	2
52	26B	1831	II/IIIa	L. Paleo./E. Archaic	231	Vertebrata	Indeterminate	5
52	26C	1830	II/IIIa	L. Paleo./E. Archaic	245	Mammalia (Medium/large)	Indeterminate	1
52	26C	1830	II/IIIa	L. Paleo./E. Archaic	245	Medium/Large Vertebrata	Indeterminate	1
52	26C	1830	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	1
52	26C	1830	II/IIIa	L. Paleo./E. Archaic	245	Vertebrata	Indeterminate	1
52	27	1684	II/IIIa	L. Paleo./E. Archaic		<i>Lepus californicus</i>	Calcaneus	1
52	27	1684	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Permanent tooth	1
52	27	1684	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Indeterminate	2
52	27	1684	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	2
52	27	1684	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	8
52	27	1684	II/IIIa	L. Paleo./E. Archaic		Testudinata	Humerus	1
52	27	1684	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	17
52	27A	1878	II/IIIa	L. Paleo./E. Archaic		Medium/Large Vertebrata	Long bone	1
52	27A	1878	II/IIIa	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	1
52	28	1893	II	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
52	28	1893	II	L. Paleo.		Leporidae	Permanent tooth	1
52	28	1893	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
52	28	1893	II	L. Paleo.		Mammalia (Micro)	Permanent tooth	1
52	28	1893	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
52	28	1893	II	L. Paleo.		Osteichthyes	Vertebra	1
52	28	1893	II	L. Paleo.		Small/Medium Vertebrata	Long bone	13
52	28	1893	II	L. Paleo.		Vertebrata	Indeterminate	48
52	28A	1741	II	L. Paleo.		Small vertebrate, class ind.	Distal phalange	1
52	28A	1741	II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
52	28A	1741	II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
52	28A	1741	II	L. Paleo.		Vertebrata	Indeterminate	24
52	28B	1742	II	L. Paleo.	248	Mammalia (Micro)	Proximal phalange	1
52	28B	1742	II	L. Paleo.	248	Vertebrata	Indeterminate	2
52	29	2537	II	L. Paleo.		Small/Medium Vertebrata	Long bone	7
52	29	2537	II	L. Paleo.		Vertebrata	Indeterminate	16
52	29A	1873	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
52	29A	1873	II	L. Paleo.		Small/Medium Vertebrata	Long bone	2
52	29A	1873	II	L. Paleo.		Testudinata	Shell fragment	1
52	29A	1873	II	L. Paleo.		Vertebrata	Indeterminate	14
52	29B	1881	II	L. Paleo.	248	Vertebrata	Indeterminate	4
52	30	1984	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
52	30	1984	II	L. Paleo.		Mammalia (Small)	Caudal vertebra	1
52	30	1984	II	L. Paleo.		Serpentes	Dorsal vertebra	1
52	30	1984	II	L. Paleo.		Small/Medium Vertebrata	Long bone	9
52	30	1984	II	L. Paleo.		<i>Sylvilagus</i> sp.	Metapodial	1
52	30	1984	II	L. Paleo.		<i>Sylvilagus</i> sp.	Ulna	1
52	30	1984	II	L. Paleo.		Testudinata	Peripheral	1
52	30	1984	II	L. Paleo.		Vertebrata	Indeterminate	44
52	31	2017	II	L. Paleo.		Mammalia (Small)	Calcaneus	1
52	31	2017	II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
52	31	2017	II	L. Paleo.		Small vertebrate, class ind.	Phalange	1
52	31	2017	II	L. Paleo.		Small/Medium Vertebrata	Long bone	14
52	31	2017	II	L. Paleo.		<i>Sylvilagus</i> sp.	Central tarsal bone	1
52	31	2017	II	L. Paleo.		Vertebrata	Indeterminate	28
52	32	2039	II	L. Paleo.		<i>Lepus californicus</i>	Permanent tooth	1
52	32	2039	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
52	32	2039	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
52	32	2039	II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
52	32	2039	II	L. Paleo.		Mammalia (Small/medium)	Ulna	1
52	32	2039	II	L. Paleo.		<i>Neotoma</i> sp.	Permanent tooth	1
52	32	2039	II	L. Paleo.		Small/Medium Vertebrata	Long bone	17
52	32	2039	II	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
52	32	2039	II	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
52	32	2039	II	L. Paleo.		<i>Sylvilagus</i> sp.	Third tarsal	1
52	32	2039	II	L. Paleo.		Vertebrata	Indeterminate	41
52	33	2080	II	L. Paleo.		Carnivora	Tooth, perm./decid. ind.	1
52	33	2080	II	L. Paleo.		Leporidae	Permanent tooth	2
52	33	2080	II	L. Paleo.		<i>Lepus californicus</i>	Fused central/fourth tarsal	1
52	33	2080	II	L. Paleo.		Mammalia (Medium/large)	Long bone	1
52	33	2080	II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
52	33	2080	II	L. Paleo.		Small/Medium Vertebrata	Long bone	14
52	33	2080	II	L. Paleo.		Testudinata	Shell fragment	1
52	33	2080	II	L. Paleo.		Vertebrata	Indeterminate	70
52	34	2769	II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
52	34	2769	II	L. Paleo.		Mammalia (Medium/large)	Long bone	3
52	34	2769	II	L. Paleo.		Mammalia (Small)	Ulna	1
52	34	2769	II	L. Paleo.		Small/Medium Vertebrata	Long bone	8
52	34	2769	II	L. Paleo.		Vertebrata	Indeterminate	17
52	35	2801	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	1
52	35	2801	Id/II	L. Paleo.		Vertebrata	Indeterminate	3
52	36	2613	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
52	36	2613	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
52	36	2613	Id/II	L. Paleo.		Rodentia (Medium)	Permanent tooth	1
52	36	2613	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	5
52	36	2613	Id/II	L. Paleo.		Vertebrata	Indeterminate	20
52	36B	2138	Id/II	L. Paleo.		Vertebrata	Indeterminate	3
52	37	2794	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Long bone	3
52	37	2794	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	1
52	37	2794	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	7
52	38	2767	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	5
52	38	2767	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
52	38	2767	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	3
52	38	2767	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	17
52	39	2207	Isi-c/Id	L. Paleo.		<i>Antilocapra/Odocoileus</i>	Phalange	1
52	39	2207	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
52	39	2207	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	2
52	39	2207	Isi-c/Id	L. Paleo.		Testudinata	Shell fragment	1
52	39	2207	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	20
52	40	2638	Isi-c	L. Paleo.		<i>Lepus californicus</i>	Permanent tooth	1
52	40	2638	Isi-c	L. Paleo.		Mammalia (Medium)	Long bone	1
52	40	2638	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
52	40	2638	Isi-c	L. Paleo.		Mammalia (Medium/large)	Permanent tooth	1
52	40	2638	Isi-c	L. Paleo.		Mammalia (Small)	Middle phalange	1
52	40	2638	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
52	40	2638	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	15
52	40	2638	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Humerus	1
52	40	2638	Isi-c	L. Paleo.		Vertebrata	Indeterminate	38
52	41	2635	Isi-c	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
52	41	2635	Isi-c	L. Paleo.		Kinosternidae	Peripheral	1
52	41	2635	Isi-c	L. Paleo.		Leporidae	Permanent tooth	3
52	41	2635	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	10
52	41	2635	Isi-c	L. Paleo.		Mammalia (Small)	Femur	3
52	41	2635	Isi-c	L. Paleo.		Mammalia (Small)	Middle phalange	1
52	41	2635	Isi-c	L. Paleo.		Mammalia (Small)	Ulna	1
52	41	2635	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
52	41	2635	Isi-c	L. Paleo.		<i>Neotoma</i> sp.	Permanent tooth	1
52	41	2635	Isi-c	L. Paleo.		Rodentia (Medium)	Permanent tooth	2
52	41	2635	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	18
52	41	2635	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Ulna	1
52	41	2635	Isi-c	L. Paleo.		Vertebrata	Indeterminate	25
52	42	2749	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
52	42	2749	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	5
52	42	2749	Isi-c	L. Paleo.		Vertebrata	Indeterminate	21
52	42B	2406	Isi-c	L. Paleo.	260	Small/Medium Vertebrata	Long bone	1
52	43	2594	Isi-c	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
52	43	2594	Isi-c	L. Paleo.		<i>Lepus californicus</i>	Permanent tooth	1
52	43	2594	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
52	43	2594	Isi-c	L. Paleo.		Mammalia (Small)	Permanent tooth	1
52	43	2594	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	4
52	43	2594	Isi-c	L. Paleo.		Vertebrata	Indeterminate	16
52	44	2559	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
52	44	2559	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	6
52	45	2467	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	4
52	45	2467	Icl/Isi-c	Paleoindian		Testudinata	Pleural	1
52	45	2467	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	13
52	46	2340	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
52	46	2618	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	4
52	46	2618	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
52	46	2618	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	22
52	47	2505	Icl/Isi-c	Paleoindian		Leporidae	Permanent tooth	1
52	47	2505	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	6
52	47	2505	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
52	47	2505	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	10
52	48	2500	Icl	E. Paleoindian		Leporidae	Permanent tooth	7
52	48	2500	Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	9
52	48	2500	Icl	E. Paleoindian		Mammalia (Small)	Femur	1
52	48	2500	Icl	E. Paleoindian		Small/Medium Vertebrata	Indeterminate	1
52	48	2500	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
52	48	2500	Icl	E. Paleoindian		Vertebrata	Indeterminate	10
52	49	2517	Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	2
52	49	2517	Icl	E. Paleoindian		Vertebrata	Indeterminate	2
52	49	2565	Icl	E. Paleoindian		cf. Leporidae	Permanent tooth	3
52	49	2565	Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
52	49	2565	Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	3
52	49	2565	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	7
52	49	2565	Icl	E. Paleoindian		Vertebrata	Indeterminate	14
52	50	2566	Isi/Icl	E. Paleoindian		Mammalia (Small)	Permanent tooth	1
52	50	2566	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
52	50	2566	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	8
52	51	2575	Isi/Icl	E. Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1
52	51	2575	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	5
52	51	2575	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Epiphysis	1
52	51	2575	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	5
52	51	2575	Isi/Icl	E. Paleoindian		Testudinata	Carapace fragment ind.	1
52	51	2575	Isi/Icl	E. Paleoindian		Testudinata	Plastron fragment ind.	1
52	51	2575	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	4
52	52	2578	Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	1
52	52	2579	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
52	52	2580	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	2
52	52	2586	Isi/Icl	E. Paleoindian		<i>Geomys</i> sp.	Permanent tooth	2
52	52	2586	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	6
52	52	2586	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	6
52	52	2586	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	16
52	53	2600	Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	12
52	53	2600	Isi/Icl	E. Paleoindian		Mammalia (Large)	Long bone	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
52	53	2750	Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	1
52	53	2750	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
52	53	2750	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
52	53	2750	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	4
52	54	2650	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
52	55	2772	Igl/Isi	E. Paleoindian		Mammalia (Medium)	Humerus	1
52	55	2772	Igl/Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	2
52	55	2772	Igl/Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
52	56	2865	Igl/Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
52	57	2709	Igl/Isi	E. Paleoindian		Vertebrata	Indeterminate	1
52	59	2869	Igl/Isi	E. Paleoindian		Mammalia (Small)	Femur	1
52	59	2869	Igl/Isi	E. Paleoindian		Vertebrata	Indeterminate	1
52	60	2848	Igl/Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
53	19	873	IIIa	E. Archaic		Vertebrata	Indeterminate	5
53	20	899	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	1
53	20	899	IIIa	E. Archaic	231	Vertebrata	Indeterminate	2
53	23	1151	IIIa	E. Archaic	231	Small/Medium Vertebrata	Long bone	1
53	23	1151	IIIa	E. Archaic	231	Vertebrata	Indeterminate	5
53	24	1460	II/IIIa	L. Paleo./E. Archaic	231/245	Vertebrata	Indeterminate	5
53	25	1543	II/IIIa	L. Paleo./E. Archaic		Mammalia (Small)	Cervical vertebra	1
53	25	1543	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
53	26A	1669	II/IIIa	L. Paleo./E. Archaic		Mammalia (Medium/large)	Long bone	1
53	26A	1669	II/IIIa	L. Paleo./E. Archaic		<i>Sylvilagus</i> sp.	Permanent tooth	1
53	26A	1669	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	3
53	26B	1652	II/IIIa	L. Paleo./E. Archaic	245	Leporidae	Permanent tooth	4
53	26B	1652	II/IIIa	L. Paleo./E. Archaic	245	Small/Medium Vertebrata	Long bone	2
53	26B	1652	II/IIIa	L. Paleo./E. Archaic	245	Vertebrata	Indeterminate	4
53	27	1683	II/IIIa	L. Paleo./E. Archaic		Vertebrata	Indeterminate	6
53	28	1707	II	L. Paleo.	248	Mammalia (Small)	Metapodial	1
53	28	1707	II	L. Paleo.	248	Vertebrata	Indeterminate	2
53	38ID	2756	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	2
53	38ID	2756	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	3
53	39A	2754	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	1
53	39A	2754	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	2
53	41	2536	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
53	50	2825	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
53	50	2825	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
53	51	2788	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	2
53	51	2788	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
53	51	2788	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
53	52	2667	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	3
53	52	2667	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
53	52	2667	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	3
53	53	2859	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
53	54	2864	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	2
53	54	2864	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	8
53	55	2860	Igl/Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	3
53	55	2860	Igl/Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
53	55	2860	Igl/Isi	E. Paleoindian		Vertebrata	Indeterminate	2
54	44	1892	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
54	44	1892	Isi	E. Paleoindian		Vertebrata	Indeterminate	3
54	45	1895	Isi	E. Paleoindian		Mammalia (Medium)	Caudal vertebra	1
54	45	1895	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
54	46	1833	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
54	47	1834	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
54	51	2809	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
54	53	2125	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
55	41	1915	Isi/Isi-c	Paleoindian		Artiodactyla	Tooth, perm./decid. ind.	3
55	41	1915	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
55	41	1915	Isi/Isi-c	Paleoindian		Mammalia (Small)	Proximal phalange	1
55	41	1915	Isi/Isi-c	Paleoindian		Mammalia (Small)	Vertebra	1
55	41	1915	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	6
55	41	1915	Isi/Isi-c	Paleoindian		Testudinata	Carapace fragment ind.	2
55	41	1915	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	25
55	41	1921	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	1
55	41	1921	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1
55	42	1938	Isi/Isi-c	Paleoindian		Chondrichthyes	Tooth	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
55	42	1938	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
55	42	1938	Isi/Isi-c	Paleoindian		Mammalia (Small)	Vertebra	1
55	42	1938	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	5
55	42	1938	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	7
55	42	1938	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	40
55	43A	2854	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	4
55	43A	2854	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
55	45	2751	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
55	45	2751	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	4
55	45	2751	Isi	E. Paleoindian		Vertebrata	Indeterminate	8
55	46	2610	Isi	E. Paleoindian		Serpentes	Dorsal vertebra	1
55	46	2610	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
55	46	2610	Isi	E. Paleoindian		Vertebrata	Indeterminate	6
55	48	2799	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
55	48	2799	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
55	49	2768	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
55	49	2768	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	4
55	49	2768	Isi	E. Paleoindian		Vertebrata	Indeterminate	12
55	50	2639	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	4
55	50	2639	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
56	36	1903	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	3
56	36	1903	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
56	36	1903	Isi-c/Id	L. Paleo.		Mammalia (Small)	Humerus	1
56	36	1903	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
56	36	1903	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	13
56	36	1903	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Distal phalange	1
56	36	1903	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
56	36	1903	Isi-c/Id	L. Paleo.		Testudinata	Shell fragment	1
56	36	1903	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	46
56	37	1918	Isi-c/Id	L. Paleo.		Leporidae	Permanent tooth	1
56	37	1918	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
56	37	1918	Isi-c/Id	L. Paleo.		<i>Neotoma</i> sp.	Permanent tooth	1
56	37	1918	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	15
56	37	1918	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
56	37	1918	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Ulna	1
56	37	1918	Isi-c/Id	L. Paleo.		Testudinata	Peripheral	2
56	37	1918	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	90
56	38	1941	Isi-c/Id	L. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	1
56	38	1941	Isi-c/Id	L. Paleo.		cf. Leporidae	Permanent tooth	1
56	38	1941	Isi-c/Id	L. Paleo.		Leporidae	Permanent tooth	4
56	38	1941	Isi-c/Id	L. Paleo.		Mammalia (Large)	Radius	1
56	38	1941	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
56	38	1941	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Long bone	1
56	38	1941	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	5
56	38	1941	Isi-c/Id	L. Paleo.		Mammalia (Small)	Radius	3
56	38	1941	Isi-c/Id	L. Paleo.		Mammalia (Small/medium)	Long bone	1
56	38	1941	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	8
56	38	1941	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	13
56	38	1941	Isi-c/Id	L. Paleo.		Squamata	Dorsal vertebra	1
56	38	1941	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
56	38	1941	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Mandible	1
56	38	1941	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	3
56	38	1941	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	58
56	39	1962	Isi-c	L. Paleo.		Artiodactyla	Tooth, perm./decid. ind.	1
56	39	1962	Isi-c	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
56	39	1962	Isi-c	L. Paleo.		Mammalia (Medium)	Tooth, perm./decid. ind.	1
56	39	1962	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
56	39	1962	Isi-c	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
56	39	1962	Isi-c	L. Paleo.		Mammalia (Small)	Pelvis	1
56	39	1962	Isi-c	L. Paleo.		Medium/Large Vertebrata	Long bone	1
56	39	1962	Isi-c	L. Paleo.		Serpentes	Dorsal vertebra	1
56	39	1962	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	11
56	39	1962	Isi-c	L. Paleo.		Vertebrata	Indeterminate	38
56	40	1989	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Vertebra	1
56	40	1990	Isi/Isi-c	Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1
56	40	1990	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
56	40	1990	Isi/Isi-c	Paleoindian		Mammalia (Small)	Radius	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
56	40	1990	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	4
56	40	1990	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	2
56	40	1990	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	6
56	40	1990	Isi/Isi-c	Paleoindian		Testudinata	Long bone	1
56	40	1990	Isi/Isi-c	Paleoindian		Testudinata	Shell fragment	3
56	40	1990	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	31
56	40	1998	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
56	40	1999	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	1
56	41	2021	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	10
56	41	2021	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	31
56	42	2046	Isi/Isi-c	Paleoindian		Leporidae	Permanent tooth	2
56	42	2046	Isi/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	1
56	42	2046	Isi/Isi-c	Paleoindian		Mammalia (Small/medium)	Alveolar ridge fragment	1
56	42	2046	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	4
56	42	2046	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	30
56	42	2046	Isi/Isi-c	Paleoindian		Vertebrata	Tooth, perm./decid. ind.	1
56	43	2082	Isi/Isi-c	Paleoindian		cf. Leporidae	Alveolar ridge fragment	1
56	43	2082	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	6
56	43	2082	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
56	43	2082	Isi/Isi-c	Paleoindian		Rodentia (Small)	Femur	1
56	43	2082	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	8
56	43	2082	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	48
56	44	2110	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
56	44	2110	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	6
56	44	2110	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	36
56	45	2148	Isi/Isi-c	Paleoindian		Mammalia (Large)	Indeterminate	1
56	45	2148	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	2
56	46	2656	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
56	46	2656	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
56	46	2656	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
56	47	2270	Isi	E. Paleoindian		<i>Bison</i> sp.	Permanent tooth	1
56	47	2655	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
56	47	2655	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	2
56	47	2655	Isi	E. Paleoindian		Testudinata	Shell fragment	1
56	47	2655	Isi	E. Paleoindian		Vertebrata	Indeterminate	4
56	48	2612	Isi	E. Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1
56	48	2612	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	3
56	48	2612	Isi	E. Paleoindian		Testudinata	Shell fragment	1
56	48	2612	Isi	E. Paleoindian		Vertebrata	Indeterminate	21
56	49	2271	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
56	49	2271	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
56	50	2641	Isi	E. Paleoindian		Vertebrata	Indeterminate	4
56	51	2760	Isi	E. Paleoindian		Vertebrata	Indeterminate	3
56	52	2560	Isi	E. Paleoindian		Vertebrata	Indeterminate	4
56	53	2623	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
56	53	2623	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
56	54	2617	Isi	E. Paleoindian		Medium/Large Vertebrata	Long bone	1
57	34	1871	Id/II	L. Paleo.		Colubridae	Dorsal vertebra	1
57	34	1871	Id/II	L. Paleo.		Leporidae	Permanent tooth	1
57	34	1871	Id/II	L. Paleo.		Mammalia (Large)	Tooth, perm./decid. ind.	3
57	34	1871	Id/II	L. Paleo.		Mammalia (Small)	Permanent tooth	1
57	34	1871	Id/II	L. Paleo.		Medium vertebrate, class ind.	Proximal phalange	1
57	34	1871	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	10
57	34	1871	Id/II	L. Paleo.		Vertebrata	Indeterminate	42
57	35	1904	Id	L. Paleo.		Leporidae	Permanent tooth	1
57	35	1904	Id	L. Paleo.		Small/Medium Vertebrata	Long bone	8
57	35	1904	Id	L. Paleo.		<i>Sylvilagus</i> sp.	Ulna	1
57	35	1904	Id	L. Paleo.		Vertebrata	Indeterminate	32
57	36	1917	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Metacarpal	1
57	36	1917	Isi-c/Id	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
57	36	1917	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	8
57	36	1917	Isi-c/Id	L. Paleo.		Medium/Large Vertebrata	Long bone	4
57	36	1917	Isi-c/Id	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
57	36	1917	Isi-c/Id	L. Paleo.		Testudinata	Shell fragment	1
57	36	1917	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	43
57	37	1954	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
57	37	1954	Isi-c	L. Paleo.		Mammalia (Small)	Humerus	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
57	37	1954	Isi-c	L. Paleo.		Mammalia (Small)	Middle phalange	1
57	37	1954	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
57	37	1954	Isi-c	L. Paleo.		Serpentes	Dorsal vertebra	2
57	37	1954	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	9
57	37	1954	Isi-c	L. Paleo.		Squamata	Dorsal vertebra	1
57	37	1954	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Proximal phalange	1
57	37	1954	Isi-c	L. Paleo.		Testudinata	Peripheral	1
57	37	1954	Isi-c	L. Paleo.		Testudinata	Shell fragment	1
57	37	1954	Isi-c	L. Paleo.		Vertebrata	Indeterminate	82
57	38	1991	Isi-c	L. Paleo.		Aves (Large)	Vertebra	1
57	38	1991	Isi-c	L. Paleo.		cf. <i>Geomys</i> sp.	Permanent tooth	1
57	38	1991	Isi-c	L. Paleo.		cf. <i>Spermophilus mexicanus</i>	Humerus	1
57	38	1991	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	4
57	38	1991	Isi-c	L. Paleo.		Mammalia (Small)	Caudal vertebra	1
57	38	1991	Isi-c	L. Paleo.		Mammalia (Small)	Proximal phalange	1
57	38	1991	Isi-c	L. Paleo.		Mammalia (Small)	Radius	1
57	38	1991	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
57	38	1991	Isi-c	L. Paleo.		<i>Neotoma</i> sp.	Permanent tooth	1
57	38	1991	Isi-c	L. Paleo.		Serpentes	Dorsal vertebra	2
57	38	1991	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	8
57	38	1991	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Ulna	1
57	38	1991	Isi-c	L. Paleo.		Testudinata	Shell fragment	2
57	38	1991	Isi-c	L. Paleo.		Vertebrata	Indeterminate	37
57	39	2029	Isi-c	L. Paleo.		<i>Blarina</i> sp.	Mandible	1
57	39	2029	Isi-c	L. Paleo.		<i>Blarina</i> sp.	Permanent tooth	1
57	39	2029	Isi-c	L. Paleo.		Leporidae	Permanent tooth	2
57	39	2029	Isi-c	L. Paleo.		Mammalia (Small)	Femur	1
57	39	2029	Isi-c	L. Paleo.		Mammalia (Small)	Radius	1
57	39	2029	Isi-c	L. Paleo.		Mammalia (Small)	Vertebra	1
57	39	2029	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	3
57	39	2029	Isi-c	L. Paleo.		Rodentia (Small)	Permanent tooth	1
57	39	2029	Isi-c	L. Paleo.		Serpentes	Dorsal vertebra	1
57	39	2029	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	21
57	39	2029	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Astragalus	1
57	39	2029	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Calcaneus	1
57	39	2029	Isi-c	L. Paleo.		<i>Sylvilagus</i> sp.	Humerus	1
57	39	2029	Isi-c	L. Paleo.		Testudinata	Shell fragment	2
57	39	2029	Isi-c	L. Paleo.		Vertebrata	Indeterminate	77
57	39	2058	Isi-c	L. Paleo.		Medium/Large Vertebrata	Indeterminate	7
57	40	2090	Isi/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
57	40	2090	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	10
57	40	2090	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Ulna	1
57	40	2090	Isi/Isi-c	Paleoindian		Testudinata	Shell fragment	1
57	40	2090	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	29
57	41	2100	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Vertebra	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		Mammalia (Small)	Caudal vertebra	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		<i>Neotoma</i> sp.	Permanent tooth	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		<i>Odocoileus</i> sp.	Permanent tooth	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		Rodentia (Medium)	Femur	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		Rodentia (Medium)	Permanent tooth	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	11
57	41	2100	Isi/Icl/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	2
57	41	2100	Isi/Icl/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		Testudinata	Shell fragment	1
57	41	2100	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	115
57	42	2646	Isi/Icl/Isi-c	Paleoindian		Leporidae	Permanent tooth	1
57	42	2646	Isi/Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	3
57	42	2646	Isi/Icl/Isi-c	Paleoindian		Mammalia (Micro)	Tooth, perm./decid. ind.	2
57	42	2646	Isi/Icl/Isi-c	Paleoindian		Serpentes	Dorsal vertebra	1
57	42	2646	Isi/Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	8
57	42	2646	Isi/Icl/Isi-c	Paleoindian		Testudinata	Carapace fragment ind.	1
57	42	2646	Isi/Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	14
57	43	2777	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
57	43	2777	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	4
57	43	2777	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	16

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
57	44	2686	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	5
57	44	2686	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Long bone	1
57	44	2686	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Permanent tooth	1
57	45	2797	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
57	45	2797	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	10
57	46	2141	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
57	46	2607	Isi/Isi-c	Paleoindian		Mammalia (Large)	Tooth, perm./decid. ind.	4
57	46	2607	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
57	46	2607	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
57	46	2607	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
57	46	2607	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	1
57	46	2607	Isi/Isi-c	Paleoindian		Testudinata	Shell fragment	1
57	46	2607	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	26
57	47	2832	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	2
57	47	2832	Isi/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
57	47	2832	Isi/Isi-c	Paleoindian		Mammalia (Micro)	Femur	1
57	47	2832	Isi/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	2
57	47	2832	Isi/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	4
57	47	2832	Isi/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Metatarsal 2	1
57	47	2832	Isi/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
57	48	2857	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
57	48	2857	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
57	49	2732	Isi	E. Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
57	49	2732	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	3
57	49	2732	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
57	49	2732	Isi	E. Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	1
57	49	2732	Isi	E. Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1
57	49	2732	Isi	E. Paleoindian		Testudinata	Shell fragment	1
57	49	2732	Isi	E. Paleoindian		Vertebrata	Indeterminate	23
57	50	2746	Isi	E. Paleoindian		Mammalia (Medium)	Tooth, perm./decid. ind.	1
57	50	2746	Isi	E. Paleoindian		Mammalia (Small)	Caudal vertebra	1
57	50	2746	Isi	E. Paleoindian		Vertebrata	Indeterminate	37
57	51	2755	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
57	51	2755	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	4
57	51	2755	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
57	51	2755	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
57	52	2868	Isi	E. Paleoindian		Vertebrata	Indeterminate	1
57	53	2584	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
58	40	1927	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	2
58	40	1927	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
58	41	1959	Isi-c	L. Paleo.		Leporidae	Permanent tooth	1
58	41	1959	Isi-c	L. Paleo.		Mammalia (Small/medium)	Permanent tooth	1
58	41	1959	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
58	42	1983	Isi-c	L. Paleo.		<i>Geomys</i> sp.	Permanent tooth	1
58	42	1983	Isi-c	L. Paleo.		Mammalia (Small)	Phalange	1
58	42	1983	Isi-c	L. Paleo.		Vertebrata	Indeterminate	6
58	43	1993	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	5
58	44	2028	Icl/Isi-c	Paleoindian		Leporidae	Permanent tooth	1
58	44	2028	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
58	44	2028	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
58	44	2028	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	4
58	45	2066	Icl/Isi-c	Paleoindian		Mammalia (Small)	Permanent tooth	1
58	45	2066	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	3
58	46	2833	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	1
58	46	2833	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	1
58	46	2833	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	1
58	47	2116	Icl	E. Paleoindian		Vertebrata	Indeterminate	1
58	48	2140	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
58	48	2140	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	3
58	48	2140	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
58	49	2151	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	3
58	49	2160	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
58	49	2604	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	3
58	49	2604	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	4
58	49	2604	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
58	50	2817	Isi/Icl	E. Paleoindian		<i>Geomys</i> sp.	Permanent tooth	1
58	50	2817	Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	3

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
58	50	2817	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Long bone	1
58	50	2817	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	2
58	52	2844	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	5
58	52	2844	Isi	E. Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	3
58	52	2844	Isi	E. Paleoindian		Vertebrata	Indeterminate	10
58	53	2862	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
58	53	2862	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
58	54A	2701	Igl/Isi	E. Paleoindian		Vertebrata	Indeterminate	1
58	55	2703	Igl/Isi	E. Paleoindian		Leporidae	Permanent tooth	1
58	55	2703	Igl/Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	4
58	55	2703	Igl/Isi	E. Paleoindian		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
58	55	2703	Igl/Isi	E. Paleoindian		Vertebrata	Indeterminate	1
58	56	2822	Igl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	1
59	34	2084	Id/II	L. Paleo.		Leporidae	Permanent tooth	1
59	34	2084	Id/II	L. Paleo.		Mammalia (Medium/large)	Indeterminate	1
59	34	2084	Id/II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
59	34	2084	Id/II	L. Paleo.		Mammalia (Small)	Alveolar ridge fragment	1
59	34	2084	Id/II	L. Paleo.		Mammalia (Small)	Vertebra	1
59	34	2084	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
59	34	2084	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	6
59	34	2084	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Permanent tooth	1
59	34	2084	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Radius	1
59	34	2084	Id/II	L. Paleo.		Vertebrata	Indeterminate	51
59	35	2103	Id/II	L. Paleo.		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
59	35	2103	Id/II	L. Paleo.		Mammalia (Small)	Alveolar ridge fragment	1
59	35	2103	Id/II	L. Paleo.		Rodentia (Medium)	Permanent tooth	1
59	35	2103	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	4
59	35	2103	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Femur	1
59	35	2103	Id/II	L. Paleo.		<i>Sylvilagus</i> sp.	Metapodial	1
59	35	2103	Id/II	L. Paleo.		Vertebrata	Indeterminate	46
59	36	2811	Id/II	L. Paleo.		Medium/Large Vertebrata	Indeterminate	1
59	36	2811	Id/II	L. Paleo.		Small/Medium Vertebrata	Long bone	3
59	36	2811	Id/II	L. Paleo.		Testudinata	Shell fragment	1
59	36	2811	Id/II	L. Paleo.		Vertebrata	Indeterminate	4
59	37	2611	Id	L. Paleo.		Leporidae	Permanent tooth	1
59	37	2611	Id	L. Paleo.		Mammalia (Small)	Permanent tooth	1
59	37	2611	Id	L. Paleo.		Medium/Large Vertebrata	Indeterminate	2
59	37	2611	Id	L. Paleo.		Small/Medium Vertebrata	Long bone	1
59	37	2611	Id	L. Paleo.		Vertebrata	Indeterminate	3
59	38	2606	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	7
59	38	2606	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	15
59	39	2693	Isi-c/Id	L. Paleo.		Mammalia (Medium)	Podial	1
59	39	2693	Isi-c/Id	L. Paleo.		Small/Medium Vertebrata	Long bone	9
59	39	2693	Isi-c/Id	L. Paleo.		Testudinata	Shell fragment	1
59	39	2693	Isi-c/Id	L. Paleo.		Vertebrata	Indeterminate	13
59	40	2278	Isi-c	L. Paleo.		Mammalia (Medium/large)	Indeterminate	2
59	40	2278	Isi-c	L. Paleo.		Mammalia (Medium/large)	Long bone	1
59	40	2278	Isi-c	L. Paleo.		Mammalia (Small)	Permanent tooth	1
59	40	2278	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	13
59	40	2278	Isi-c	L. Paleo.		Vertebrata	Indeterminate	34
59	41	2269	Isi-c	L. Paleo.		Mammalia (Small)	Permanent tooth	1
59	41	2269	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	8
59	41	2269	Isi-c	L. Paleo.		Vertebrata	Indeterminate	24
59	42A	2272	Isi-c	L. Paleo.		Small/Medium Vertebrata	Long bone	5
59	42A	2272	Isi-c	L. Paleo.		Vertebrata	Indeterminate	4
59	43	2735	Icl/Isi-c	Paleoindian		Leporidae	Permanent tooth	1
59	43	2735	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Long bone	1
59	43	2735	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	3
59	43	2735	Icl/Isi-c	Paleoindian		Testudinata	Shell fragment	1
59	43	2735	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	24
59	44	2640	Icl/Isi-c	Paleoindian		Mammalia (Medium/large)	Indeterminate	3
59	44	2640	Icl/Isi-c	Paleoindian		Medium/Large Vertebrata	Indeterminate	3
59	44	2640	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	2
59	44	2640	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	11
59	45	2733	Icl/Isi-c	Paleoindian		Leporidae	Metacarpal 2	1
59	45	2733	Icl/Isi-c	Paleoindian		Small/Medium Vertebrata	Long bone	5
59	45	2733	Icl/Isi-c	Paleoindian		<i>Sylvilagus</i> sp.	Metatarsal 2	1

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
59	45	2733	Icl/Isi-c	Paleoindian		Vertebrata	Indeterminate	18
59	46	2740	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
59	47	2634	Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	12
59	47	2634	Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
59	47	2634	Icl	E. Paleoindian		Vertebrata	Indeterminate	5
59	48	2632	Icl	E. Paleoindian		Mammalia (Medium)	Long bone	1
59	48	2632	Icl	E. Paleoindian		Vertebrata	Indeterminate	5
59	49	2631	Isi/Icl	E. Paleoindian		Leporidae	Permanent tooth	2
59	49	2631	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	6
59	49	2631	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	1
59	49	2631	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	6
59	50	2627	Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	1
59	50	2627	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	3
59	50	2627	Isi/Icl	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
59	50	2627	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	3
59	51	2387	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
59	51	2775	Isi/Icl	E. Paleoindian		Mammalia (Large)	Indeterminate	1
59	51	2775	Isi/Icl	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	6
59	51	2775	Isi/Icl	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	2
59	51	2775	Isi/Icl	E. Paleoindian		Vertebrata	Indeterminate	4
59	52	2493	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	5
59	52	2495	Isi	E. Paleoindian		Mammalia (Large)	Long bone	1
59	52	2503	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	12
59	52	2503	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
59	52	2503	Isi	E. Paleoindian		Vertebrata	Indeterminate	14
59	52	2508	Isi	E. Paleoindian		Vertebrata	Indeterminate	6
59	53	2529	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	2
59	53	2568	Isi	E. Paleoindian		Mammalia (Medium/large)	Indeterminate	8
59	53	2568	Isi	E. Paleoindian		Mammalia (Small)	Permanent tooth	1
59	53	2568	Isi	E. Paleoindian		<i>Sylvilagus</i> sp.	Calcaneus	1
59	53	2568	Isi	E. Paleoindian		<i>Sylvilagus</i> sp.	Humerus	1
59	53	2568	Isi	E. Paleoindian		Vertebrata	Indeterminate	33
59	54	2734	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
59	54	2734	Isi	E. Paleoindian		Vertebrata	Indeterminate	12
59	55	2648	Isi	E. Paleoindian		Mammalia (Very large)	Long bone	1
59	55	2654	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	3
59	55	2654	Isi	E. Paleoindian		Vertebrata	Indeterminate	5
59	56	2781	Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	1
60	56	2697	Igl/Isi	E. Paleoindian		Medium/Large Vertebrata	Indeterminate	4
60	56	2697	Igl/Isi	E. Paleoindian		Testudinata	Carapace fragment ind.	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Antilocapra/Odocoileus</i>	Metapodial	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Antilocapra/Odocoileus</i>	Middle phalange	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Antilocapra/Odocoileus</i>	Phalange	2
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Antilocapra/Odocoileus</i>	Radius	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Colubridae	Dorsal vertebra	2
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Geomys</i> sp.	Ulna	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Leporidae	Permanent tooth	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Lepus californicus</i>	Permanent tooth	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Large)	Cranium	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Large)	Indeterminate	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Large)	Long bone	3
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Medium)	Femur	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Medium/large)	Indeterminate	75
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Medium/large)	Long bone	51
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Medium/large)	Permanent tooth	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Medium/large)	Tooth, perm./decid. ind.	18
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Medium/large)	Vertebra	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Micro)	Permanent tooth	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Small)	Metapodial	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Mammalia (Small)	Tibia	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Odocoileus</i> sp.	Fused second & third carpal	2
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Odocoileus</i> sp.	Fused second & third tarsal	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Odocoileus</i> sp.	Permanent tooth	7
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Odocoileus</i> sp.	Phalange	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Odocoileus</i> sp.	Proximal axial sesamoid	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Odocoileus</i> sp.	Proximal phalange	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	3

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Small/Medium Vertebrata	Long bone	10
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	<i>Sylvilagus</i> sp.	Radius	2
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Testudinata	Carapace fragment ind.	1
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Testudinata	Shell fragment	2
100	2	1206	IIIc	L. Archaic/L. Prehist.	BRM 1	Vertebrata	Indeterminate	860
100	3	1265	IIIc	L. Archaic	BRM 1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
100	3	1265	IIIc	L. Archaic	BRM 1	<i>Antilocapra/Odocoileus</i>	Middle phalange	1
100	3	1265	IIIc	L. Archaic	BRM 1	<i>Antilocapra/Odocoileus</i>	Phalange	2
100	3	1265	IIIc	L. Archaic	BRM 1	Colubridae	Dorsal vertebra	1
100	3	1265	IIIc	L. Archaic	BRM 1	<i>Geomys</i> sp.	Permanent tooth	1
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Large)	Long bone	2
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Medium)	Metapodial	1
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Medium)	Third tarsal	1
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Alveolar ridge fragment	1
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Indeterminate	138
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Long bone	59
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Mandible	1
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Rib	1
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Tooth, perm./decid. ind.	7
100	3	1265	IIIc	L. Archaic	BRM 1	Mammalia (Micro)	Mandible	1
100	3	1265	IIIc	L. Archaic	BRM 1	Medium/Large Vertebrata	Indeterminate	1
100	3	1265	IIIc	L. Archaic	BRM 1	<i>Odocoileus</i> sp.	Middle phalange	1
100	3	1265	IIIc	L. Archaic	BRM 1	<i>Odocoileus</i> sp.	Tibia	1
100	3	1265	IIIc	L. Archaic	BRM 1	<i>Odocoileus</i> sp.	Tooth, perm./decid. ind.	5
100	3	1265	IIIc	L. Archaic	BRM 1	Serpentes	Dorsal vertebra	1
100	3	1265	IIIc	L. Archaic	BRM 1	Small vertebrate, class ind.	Phalange	1
100	3	1265	IIIc	L. Archaic	BRM 1	Small/Medium Vertebrata	Long bone	25
100	3	1265	IIIc	L. Archaic	BRM 1	<i>Sylvilagus</i> sp.	Central tarsal bone	1
100	3	1265	IIIc	L. Archaic	BRM 1	Testudinata	Carapace fragment ind.	2
100	3	1265	IIIc	L. Archaic	BRM 1	Testudinata	Shell fragment	3
100	3	1265	IIIc	L. Archaic	BRM 1	Vertebrata	Indeterminate	359
100	3	1265	IIIc	L. Archaic	BRM 1	Viperidae	Dorsal vertebra	2
100	4	1295	IIIc	L. Archaic	BRM 1	<i>Antilocapra/Odocoileus</i>	Fused 3rd & 4th metatarsal	1
100	4	1295	IIIc	L. Archaic	BRM 1	Colubridae	Dorsal vertebra	1
100	4	1295	IIIc	L. Archaic	BRM 1	<i>Lepus californicus</i>	Permanent tooth	1
100	4	1295	IIIc	L. Archaic	BRM 1	Mammalia (Large)	Indeterminate	2
100	4	1295	IIIc	L. Archaic	BRM 1	Mammalia (Medium)	Femur	1
100	4	1295	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Indeterminate	20
100	4	1295	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Long bone	3
100	4	1295	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Tooth, perm./decid. ind.	6
100	4	1295	IIIc	L. Archaic	BRM 1	Mammalia (Small)	Patella	1
100	4	1295	IIIc	L. Archaic	BRM 1	Small vertebrate, class ind.	Distal phalange	1
100	4	1295	IIIc	L. Archaic	BRM 1	Small/Medium Vertebrata	Long bone	17
100	4	1295	IIIc	L. Archaic	BRM 1	<i>Sylvilagus</i> sp.	Humerus	1
100	4	1295	IIIc	L. Archaic	BRM 1	Testudinata	Shell fragment	2
100	4	1295	IIIc	L. Archaic	BRM 1	Vertebrata	Indeterminate	70
100	5	1308	IIIc	L. Archaic	BRM 1	Small/Medium Vertebrata	Long bone	1
100	5	1315	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Indeterminate	4
100	5	1315	IIIc	L. Archaic	BRM 1	Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
100	5	1315	IIIc	L. Archaic	BRM 1	Mammalia (Micro)	Metapodial	1
100	5	1315	IIIc	L. Archaic	BRM 1	Medium/Large Vertebrata	Indeterminate	1
100	5	1315	IIIc	L. Archaic	BRM 1	Small/Medium Vertebrata	Long bone	10
100	5	1315	IIIc	L. Archaic	BRM 1	Testudinata	Carapace fragment ind.	1
100	5	1315	IIIc	L. Archaic	BRM 1	Vertebrata	Indeterminate	44
100	6	1349	IIIc	Archaic	BRM 1	Mammalia (Medium/large)	Indeterminate	2
100	6	1349	IIIc	Archaic	BRM 1	Mammalia (Medium/large)	Tooth, perm./decid. ind.	2
100	6	1349	IIIc	Archaic	BRM 1	Serpentes	Dorsal vertebra	1
100	6	1349	IIIc	Archaic	BRM 1	Small/Medium Vertebrata	Long bone	14
100	6	1349	IIIc	Archaic	BRM 1	<i>Sylvilagus</i> sp.	Permanent tooth	1
100	6	1349	IIIc	Archaic	BRM 1	Testudinata	Shell fragment	1
100	6	1349	IIIc	Archaic	BRM 1	Vertebrata	Indeterminate	69
100	6	1353	IIIc	Archaic	BRM 1	Vertebrata	Indeterminate	1
100	7	1384	IIIc	Archaic	BRM 1	Anura	Long bone	1
100	7	1384	IIIc	Archaic	BRM 1	Carnivora	Permanent tooth	1
100	7	1384	IIIc	Archaic	BRM 1	Mammalia (Medium)	Metapodial	1
100	7	1384	IIIc	Archaic	BRM 1	Mammalia (Medium/large)	Indeterminate	3
100	7	1384	IIIc	Archaic	BRM 1	Mammalia (Medium/large)	Long bone	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
100	7	1384	IIIc	Archaic	BRM 1	Mammalia (Micro)	Permanent tooth	1
100	7	1384	IIIc	Archaic	BRM 1	Small/Medium Vertebrata	Long bone	14
100	7	1384	IIIc	Archaic	BRM 1	Vertebrata	Indeterminate	41
100	8	1422	IIIc	Archaic	BRM 1	Colubridae	Dorsal vertebra	1
100	8	1422	IIIc	Archaic	BRM 1	Mammalia (Medium)	Proximal phalange	1
100	8	1422	IIIc	Archaic	BRM 1	Mammalia (Micro)	Calcaneus	1
100	8	1422	IIIc	Archaic	BRM 1	Small/Medium Vertebrata	Long bone	20
100	8	1422	IIIc	Archaic	BRM 1	<i>Sylvilagus</i> sp.	Metatarsal 4	1
100	8	1422	IIIc	Archaic	BRM 1	Testudinata	Shell fragment	2
100	8	1422	IIIc	Archaic	BRM 1	Vertebrata	Indeterminate	55
100	9	1505	Y/IIIc	Archaic		Mammalia (Medium)	Alveolar ridge fragment	1
100	9	1505	Y/IIIc	Archaic		Mammalia (Micro)	Calcaneus	2
100	9	1505	Y/IIIc	Archaic		Medium/Large Vertebrata	Indeterminate	2
100	9	1505	Y/IIIc	Archaic		<i>Odocoileus</i> sp.	Proximal phalange	1
100	9	1505	Y/IIIc	Archaic		Osteichthyes (Small)	Vertebra	1
100	9	1505	Y/IIIc	Archaic		Small/Medium Vertebrata	Long bone	14
100	9	1505	Y/IIIc	Archaic		Testudinata	Plastron fragment ind.	1
100	9	1505	Y/IIIc	Archaic		Testudinata	Shell fragment	2
100	9	1505	Y/IIIc	Archaic		Vertebrata	Indeterminate	69
100	10	1560	Y	E. Archaic		<i>Antilocapra/Odocoileus</i>	Proximal phalange	1
100	10	1560	Y	E. Archaic		Colubridae	Dorsal vertebra	3
100	10	1560	Y	E. Archaic		Leporidae	Permanent tooth	1
100	10	1560	Y	E. Archaic		Mammalia (Large)	Indeterminate	1
100	10	1560	Y	E. Archaic		Mammalia (Medium/large)	Long bone	1
100	10	1560	Y	E. Archaic		Mammalia (Micro)	Mandible	1
100	10	1560	Y	E. Archaic		Small vertebrate, class ind.	Vertebra	1
100	10	1560	Y	E. Archaic		Small/Medium Vertebrata	Long bone	26
100	10	1560	Y	E. Archaic		Testudinata	Shell fragment	3
100	10	1560	Y	E. Archaic		Vertebrata	Indeterminate	105
100	10	1563	Y	E. Archaic		Small vertebrate, class ind.	Phalange	1
100	10	1563	Y	E. Archaic		Small vertebrate, class ind.	Proximal phalange	1
100	10	1563	Y	E. Archaic		Vertebrata	Indeterminate	2
100	11	1668	Y	E. Archaic		Mammalia (Medium/large)	Indeterminate	1
100	11	1668	Y	E. Archaic		Mammalia (Medium/large)	Long bone	4
100	11	1668	Y	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
100	11	1668	Y	E. Archaic		Mammalia (Small)	Permanent tooth	1
100	11	1668	Y	E. Archaic		Small vertebrate, class ind.	Phalange	1
100	11	1668	Y	E. Archaic		Small/Medium Vertebrata	Long bone	12
100	11	1668	Y	E. Archaic		Vertebrata	Indeterminate	59
101	12	2083	Y	E. Archaic		<i>Lepus californicus</i>	Astragalus	1
101	12	2083	Y	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	3
101	12	2083	Y	E. Archaic		Mammalia (Small)	Radius	1
101	12	2083	Y	E. Archaic		Medium/Large Vertebrata	Indeterminate	4
101	12	2083	Y	E. Archaic		Serpentes	Dorsal vertebra	2
101	12	2083	Y	E. Archaic		Small/Medium Vertebrata	Long bone	11
101	12	2083	Y	E. Archaic		Testudinata	Shell fragment	4
101	12	2083	Y	E. Archaic		Vertebrata	Indeterminate	112
101	13	2858	Y	E. Archaic		Serpentes	Dorsal vertebra	1
101	13	2858	Y	E. Archaic		Small/Medium Vertebrata	Long bone	2
101	13	2858	Y	E. Archaic		Vertebrata	Indeterminate	2
101	15	2651	X	E. Archaic		Leporidae	Mandible	1
101	15	2651	X	E. Archaic		Leporidae	Permanent tooth	1
101	15	2651	X	E. Archaic		<i>Lepus californicus</i>	Permanent tooth	1
101	15	2651	X	E. Archaic		Mammalia (Small)	Alveolar ridge fragment	1
101	15	2651	X	E. Archaic		Serpentes	Dorsal vertebra	1
101	15	2651	X	E. Archaic		Small/Medium Vertebrata	Long bone	6
101	15	2651	X	E. Archaic		Vertebrata	Indeterminate	8
101	16	2805	X	E. Archaic		Medium/Large Vertebrata	Indeterminate	7
101	16	2805	X	E. Archaic		Small/Medium Vertebrata	Long bone	2
101	16	2805	X	E. Archaic		Vertebrata	Indeterminate	19
101	17	2827	X	E. Archaic		Leporidae	Permanent tooth	1
101	17	2827	X	E. Archaic		Mammalia (Large)	Indeterminate	1
101	17	2827	X	E. Archaic		Mammalia (Medium/large)	Indeterminate	2
101	17	2827	X	E. Archaic		Mammalia (Medium/large)	Tooth, perm./decid. ind.	1
101	17	2827	X	E. Archaic		Mammalia (Micro)	Cranium	1
101	17	2827	X	E. Archaic		Mammalia (Small)	Radius	1
101	17	2827	X	E. Archaic		Small/Medium Vertebrata	Long bone	2

Square	Level	Lot	Unit	Cultural Affinity	Feature	Taxon	Element	No.
101	17	2827	X	E. Archaic		Vertebrata	Indeterminate	13
101	18	2688	X	L. Paleo./E. Archaic		Leporidae	Permanent tooth	1
101	18	2688	X	L. Paleo./E. Archaic		Mammalia (Medium/large)	Indeterminate	2
101	18	2688	X	L. Paleo./E. Archaic		Small/Medium Vertebrata	Long bone	3
101	18	2688	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	19
101	19	2795	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
101	21	2147	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	2
101	22	2291	X	L. Paleo./E. Archaic		Vertebrata	Indeterminate	1
101	24	2731	X	Paleoindian		Vertebrata	Indeterminate	1
101	26	2629	X	Paleoindian		Vertebrata	Indeterminate	1
101	27	2727	X	Paleoindian		Vertebrata	Indeterminate	1
B	1	297	Isi	E. Paleoindian		Small/Medium Vertebrata	Long bone	2
B	1	297	Isi	E. Paleoindian		<i>Sylvilagus</i> sp.	Permanent tooth	1
B	1	297	Isi	E. Paleoindian		Vertebrata	Indeterminate	2
B	2	136	Isi	E. Paleoindian		Vertebrata	Indeterminate	9
B	3	143	Igl/Isi	E. Paleoindian		Mammalia (Medium/large)	Long bone	1
B	3	143	Igl/Isi	E. Paleoindian		<i>Sylvilagus</i> sp.	Ulna	1
B	3	143	Igl/Isi	E. Paleoindian		Vertebrata	Indeterminate	1
Unknown	0	1489	?	Unassigned		Mammalia (Large)	Pelvis	1
Unknown	0	2446	?	Unassigned		Mammalia (Large)	Indeterminate	5
Unknown	39-45	2785	?	Unassigned		Leporidae	Permanent tooth	1
Unknown	43	2261	?	Unassigned		Mammalia (Medium/large)	Indeterminate	1

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