



INDEX OF TEXAS ARCHAEOLOGY

Open Access Gray Literature from the Lone Star State

Volume 1992


Article 22

1992

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Wormser, Alan J. (1992) "Test Excavations at Site 41LK288, US 281 at Ramirena Creek, Live Oak County, Texas," *Index of Texas Archaeology: Open Access Gray Literature from the Lone Star State*: Vol. 1992, Article 22. ISSN: 2475-9333

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Test Excavations at Site 41LK288, US 281 at Ramirena Creek, Live Oak County, Texas

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**TEST EXCAVATIONS AT SITE 41LK288
US 281 AT RAMIREÑA CREEK
LIVE OAK COUNTY, TEXAS**

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Division of Highway Design
July 1992**

ABSTRACT

The Texas Department of Transportation (TxDOT) will widen US 281, just south of George West, Texas. The project will affect a portion of archaeological site 41LK288 on the west side of the existing highway.

The site was tested in March 1992 in order to determine its eligibility for the National Register of Historic Places. Based on this investigation, 41LK288 appears to be an open campsite with a Middle Archaic component. No features were found and in most of the test units, artifacts were sparse. The site is not considered eligible for the National Register of Historic Places.

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INTRODUCTION

The Texas Department of Transportation (TxDOT) plans to widen US 281 and the project will affect archaeological site 41LK288. The site (Fig. 1) is on a terrace on the north side of Ramireña Creek and on the west side of US 281 in Live Oak County. A few flakes and pieces of burned rock are visible on the surface and in eroded areas and gopher mounds.

Testing was conducted in March 1992. Seven 1-m-by-1-m test units were excavated in 10-cm levels (Fig. 2). The deepest unit was excavated down to 100 cm. No features were found. The only tools found were a biface fragment and the basal portion of a Langtry dart.

A Gradall was used to cut three (3) trenches, allowing quick assessment of the presence of features. None were found.

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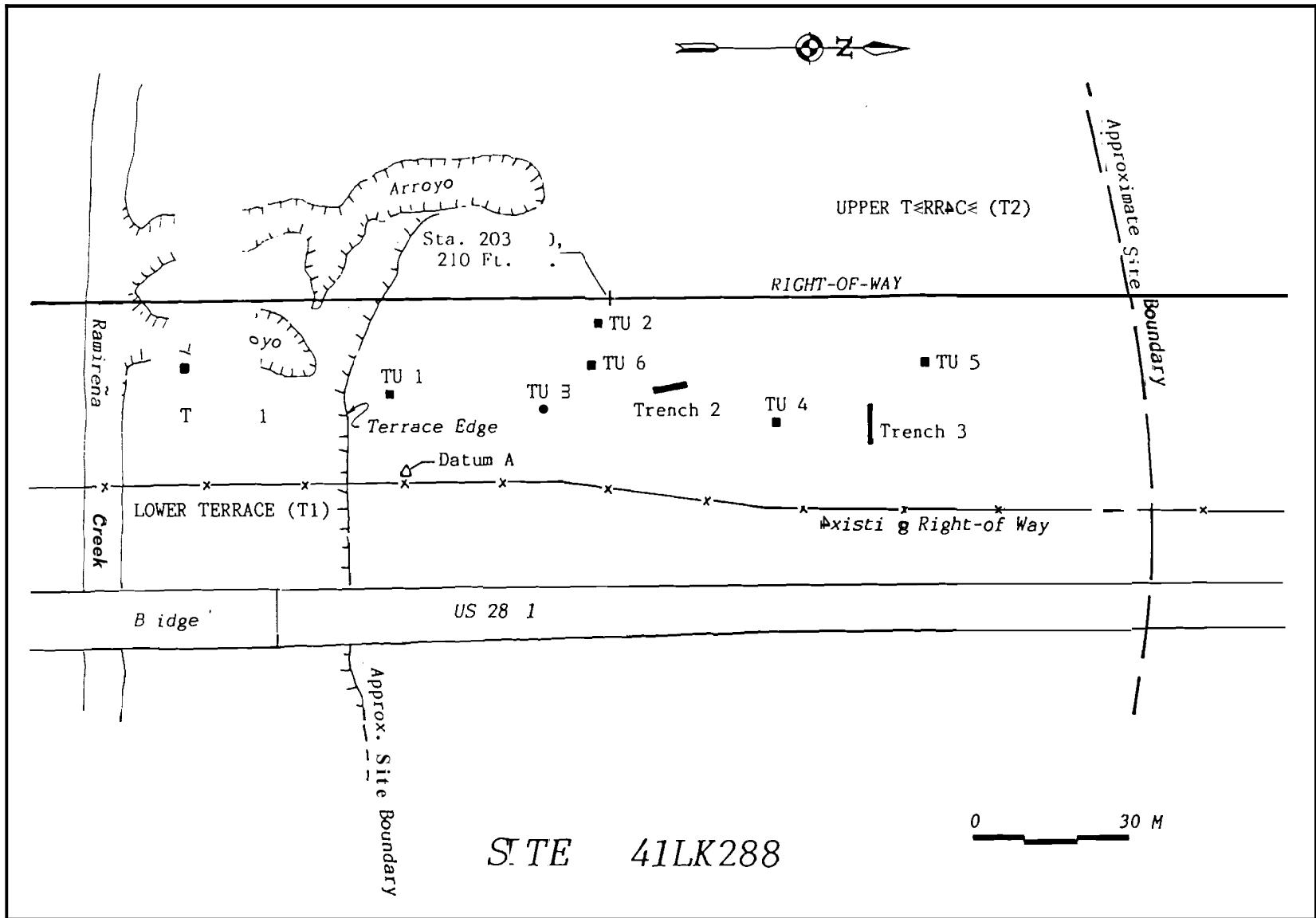


FIGURE 2. Test units and trenches at 41LK288.

ENVIRONMENTAL SETTING

According to Blair (1950), Live Oak County is in the northern portion of the Tamaulipan Biotic Province. This region is typified by a semiarid climate with thorny brush as the predominate vegetation. Mesquite, acacia, mimosa, huisache, and prickly pear cactus are very common.

Gould (1969) places the southern half of Live Oak County within the Post Oak Savannah, where it interdigitates with the Blackland Prairie. This designation associates the area more with east-central and northeastern Texas than with southern Texas and northeastern Mexico. Vegetation of the Post Oak Savannah includes oak-hickory, with tall grasses in open areas. At 41LK288, a galleria oak-hickory forest occurs along the lower terraces of Ramirena Creek. The upper terraces consist of thorny brush of mesquite and prickly pear cactus.

Carr (1977) divides Texas into three broad climatic regimes: The Interior and Lower Coast, The Upper Coast and Trans-Pecos, and East Texas. Although the Upper Coast and Trans-Pecos regions are not adjacent to one another, Carr groups them together based on similarities in the weather patterns. Each of the three regimes is subdivided further, and Live Oak County is on the boundary of Carr's southern and south-central climatic divisions of the Interior and Lower Coast regime. Average annual rainfall in the area is about 27 in., with maximum precipitation in May and September. Highest temperatures occur in August, with a monthly mean temperature of about 85°F. January is the coldest month, with a mean monthly temperature of 54°F.

CULTURAL SETTING

Previous Archaeological Research

Choke Canyon Reservoir, in northern Live Oak and McMullen Counties, was surveyed by Wakefield in the 1960s (Wakefield 1968). He recorded a total of 18 sites. In the 1970s and 1980s, the University of Texas at San Antonio completed an intensive study of Choke Canyon (Lynn, Fox, and O'Malley 1977; Jurgens 1980; Bandy 1981; Campbell and Campbell 1981; Everett 1981; Roemer 1981; Thoms, Montgomery, and Portnoy 1981; Brown et al. 1982; Hall, Black, and Graves 1982; Scott and Fox 1982; Fox 1984, 1986; Labadie 1985; Hall, Hester, and Black 1986; Highley 1986).

Quarry/workshop sites at Choke Canyon (Hall, Black, and Graves 1982:466-468) are not very differentiated from other types of sites, possibly due to the widespread availability of lithic material. They note that several sites in the uplands have hearth features and high concentrations of artifacts, suggesting generalized, base-camp activities. Shafer and Baxter (1975:68-74) found similar settlement patterns in McMullen and Atascosa counties and theorized that during times of relatively high rainfall, upland drainages would temporarily fill, allowing encampments away from the main streams and springs. Hall, Black, and Graves (1982) point out that in Choke Canyon, the sites are within a few hours' walk from streams and mussel shell is common at the upland base camps, indicating that trips were made to the streams. Although a large number of Archaic sites were found in Choke Canyon, and relatively few Paleoindian sites were found, McGraw (1991) suggests that Paleoindian sites are more common in the area surrounding Choke Canyon.

The Texas Department of Transportation (TxDOT) sponsored investigations at 41LK28, the Loma Sandia Site (Taylor and Highley n.d.). The Loma Sandia held substantial cultural deposits, including an Archaic cemetery with evidence of elaborate burial rites. In addition, TxDOT examined a number of sites in northeastern Live Oak County including several city blocks in the town of Oakville (Patterson 1987). TxDOT also tested 41LK269, an open campsite on the Nueces River, east of George West (Goode 1986).

Mining activity, especially uranium mining, has prompted several archaeological surveys and tests (Creel et al. 1979; McGraw 1979; Robinson 1983a,b; Snavely 1984). Surveys and tests have also been associated with several public works projects, including the county airport and regional park (Warren 1983, 1985), and flood control projects (Mallouf 1975, 1977; Prewitt and Scott 1977; Pliska 1980).

Chronology

Based largely on excavations at site 41LK31/32 (Scott and Fox 1982) and other work at Choke Canyon Reservoir, Hall, Black, and Graves (1982:469), suggest the following chronology:

Paleoindian	9000 B.C. to 6000 B.C.
Pre-Archaic	6000 B.C. to 3500 B.C.
Early Archaic	3500 B.C. to 2500 B.C.
Middle Archaic	2500 B.C. to 800 B.C.
Late Archaic	800 B.C. to A.D. 1200
Late Prehistoric	A.D. 1200 to A.D. 1530

The Paleoindian Period is not well represented at Choke Canyon, but diagnostic artifacts include Clovis, Folsom, Plainview, Golondrina, and Angostura points along with other early lanceolate point types. Clear Fork Gouges are first seen in the Late Paleoindian Period, and become more common in the Early Archaic Period. The Paleoindian Period is typified by small campsites representing a highly mobile hunting-and-gathering population.

The Archaic Period, including the Pre-Archaic Period, is typified by a continuation of a hunter-gatherer lifestyle, but with perhaps more emphasis on smaller game, riverine resources such as mussels, and plant gathering. Early Archaic sites in south Texas tend to have triangular points and knives, and the triangular technology continues into the Middle Archaic. Other dart types from the Early Archaic include Bandy, Bulverde, and Martindale. During the Middle Archaic Period, other dart styles such as Pedernales, Tortugas, and Marshall are found. Late Archaic Period sites frequently have Marcos, Frio/Ensor, and Montell dart points.

Distinctions between the Archaic periods are mainly based on changes in the styles of tools. However, during the Middle and Late Archaic periods there was an elaboration in ceremonialism which can be seen in burials at the Loma Sandia Site (41LK28) and in central Texas, where there is evidence for similar ceremonialism (Wormser 1989) at approximately the same time.

During the Late Prehistoric Period, the hunter-gatherer lifestyle was maintained although the south and central Texas population interacted with sedentary and semi-sedentary peoples to the east and west. Bow-and-arrow technology replaced the dart technology of the Archaic and Paleoindian Periods, and there was more emphasis on plant food processing. Pottery was used for the first time during this period, and some of the historically known Indian groups can be identified archaeologically.

FIELD METHODS

Seven 1-m-by-1-m test units were excavated with shovels and trowels. The units were excavated in levels 10 cm deep as measured from the surface. Soil was passed through screens made from 1/4-in. hardware cloth, and all artifacts and faunal remains encountered during screening were collected. At the end of each level, the unit was scraped with a trowel in order to reveal stains and features, and standardized level forms were filled out. Upon completion of the last level of each unit, a profile sketch was made of one wall.

In addition to the test units, three trenches were excavated using a Gradall. The Gradall operations were monitored by the staff archaeologist and profile sketches were made of the trench walls.

No features were found in the test units or revealed by trenching. All stains observed were identified as krotovinas.

STRATIGRAPHY

Profiles from the three trenches are shown in Figure 3. Trench 1 was on the lower terrace; Trenches 2 and 3 were on the upper terrace. Even so, the profile of Trench 3 was more similar to that observed in Trench 1 than in Trench 2. The profiles from each of the test units corresponds to that of the nearest trench.

Stratigraphy in Trench 1 consists of an upper zone of black (10YR 2/1) silt loam extending to between 140 and 160 cm below the surface. Roots are common throughout the soil zone. Underlying the upper zone is a light brownish gray (10YR 6/2) to gray (10YR 5/1) sand.

The profile for Trench 2 was slightly more complex than that of Trench 1. From the surface to a depth of 50 cm the soil is a very dark grayish brown (10YR 3/2) sandy loam. There is a great deal of disturbance from tree roots visible in this upper soil zone. From 50 cm to about 65 cm below the surface, the soil became less sandy and lighter in color. The soil in this zone is a brown (10YR 5/3) silty loam. A few large tree roots were present, but root disturbances were not common otherwise. The third soil zone observed extends from about 65 cm to more than 160 cm below the surface. As with the previous zone, the soil is a brown (10YR 5/3) silty loam, however no roots were observed and caliche nodules are common.

The profile of Trench 3 consists of an upper soil zone which extends from the surface to 120 cm below the surface. It is a black (10YR 2/1) loam, similar to the upper zone of Trench 1. Roots are common to about 80 cm, below which they are infrequent. The lower soil zone, from about 120 cm to more than 140 cm below the surface, consists of a pale brown (10YR 6/1) sandy silt or silty loam with lots of caliche specks and nodules. Although siltier than the lower zone of Trench 1, it is otherwise very similar.

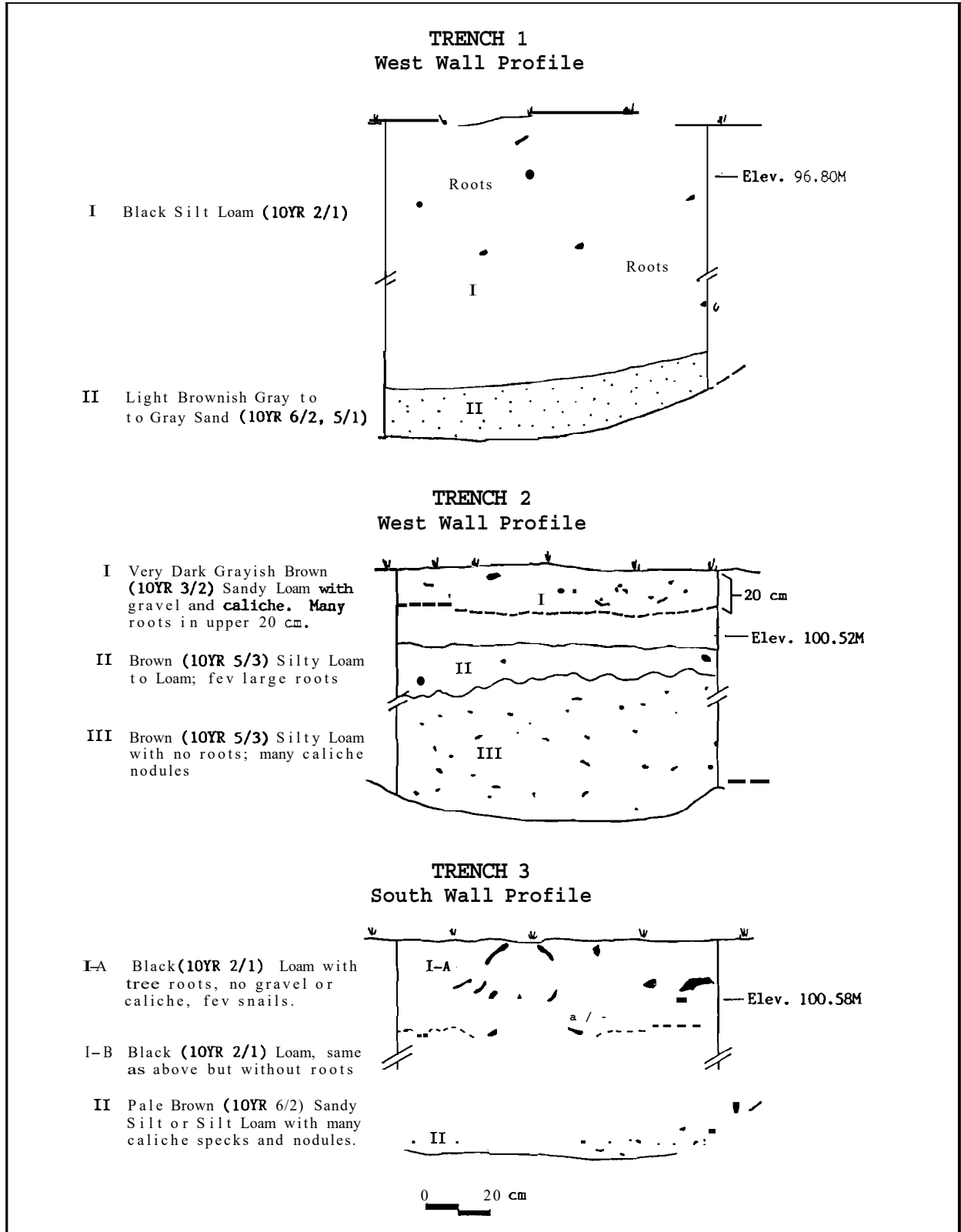


FIGURE 3. Stratigraphic profiles.

ARTIFACT DESCRIPTIONS

Chipping Debris and Burned Rock

Flakes and burned rock are summarized in Table 1. With the exception of Test Units 2 and 6, artifacts were only found near the surface. In the other test units, artifacts were also found in much lower frequencies than in Test Units 2 and 6. Only Test Unit 2 exhibited an increased number of artifacts with depth below the surface.

Tertiary flakes predominate and most appear to be the result of fine flaking—as for the last stages of tool manufacture and retouch. Most of the primary and secondary flakes were small. Presumably the prehistoric site occupants obtained their raw material from gravels in Ramireña Creek, the Nueces River, or other nearby streams.

Most of the burned rock came from Test Unit 2, although no feature was observed in that test unit. The burned rock is mostly small in size (less than 5 cm diameter) and consists of limestone, quartzite, and chert. Burned rock was also common in Test Unit 6.

TABLE 1. Flakes and burned rock/shatter at 41LK288.

Unit	Level	Primary Flakes	Secondary Flakes	Tertiary Flakes	Burned Rock and Shatter
TU-1	1	--	4	21	3
	2	--	--	10	6
	3	--	2	3	7
	4	--	--	--	1
	5	--	--	--	--
TU-2	1	--	--	4	3
	2	1	4	3	19
	3	--	--	7	4
	4	--	1	8	38
	5	--	--	15	16
	6	--	2	8	12
	7	--	--	6	12
	8	--	--	--	--
TU-3	1	2	2	14	3
	2	--	1	21	--
	3	--	--	--	--
TU-4	1	--	--	2	--
	2	--	--	--	--
	3	--	--	--	--
	4	--	--	--	1
TU-5	1	--	1	2	--
	2	--	--	4	--
	3	--	--	--	--
	4	--	--	--	--
TU-6	1	--	3	16	5
	2	2	2	9	5
	3	--	--	6	6
	4	--	2	5	7
	5	--	2	6	3
	6	--	1	6	--
	7	--	--	3	4
	8	--	--	3	5
	9	1	--	4	1
	10	--	--	2	1
TU-7	1	--	--	--	--
	2	--	--	--	--

Stone Implements

Only two stone tools were found: one biface tip and a Langtry dart point (Fig. 4). Both were found in Test Unit 2. The biface tip, from Level 2, was broken by a lateral snap, but it cannot be determined whether this occurred during use, manufacturing, or resharpening.

The Langtry point is almost complete, with only the tip and barbs missing. It was found at Level 5, and indicates the presence of a Middle Archaic component.

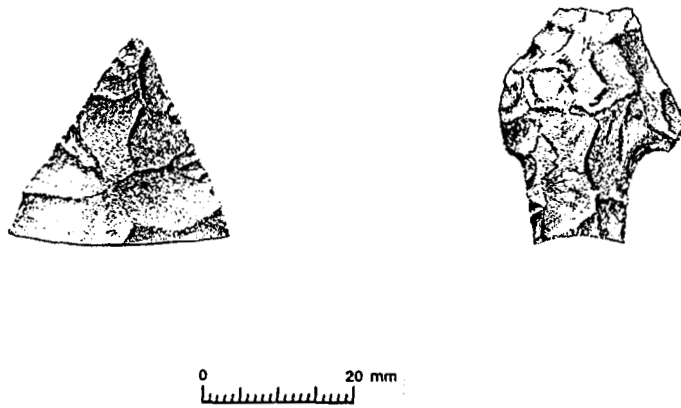


FIGURE 4. Biface fragment and Langtry dart point from Test Unit 2.

Faunal Remains

Faunal remains (Table 2) consist primarily of snail shell fragments, and most of these specimens are *Rabdotus* sp., which is common on archaeological sites in South Texas. At 41LK288, there is no indication that the snails were being consumed prehistorically, but neither can the possibility of snails as a food source be ruled out.

In addition to *Rabdotus*, other snails that were encountered include *Practicolella* sp. and *Polygyra* sp., both of which probably occur naturally. Another species, *Mesodon thyroides*, occurred in large numbers in Test Unit 7, from which no artifacts were recovered. In this case, the test unit appears to be outside of the site boundaries, but the snails prefer the lower terrace because of its dense, brushy vegetation and proximity to the river.

TABLE 2. Snail shell at 41LK288.

Unit	Level	<i>Rabdotus</i>	<i>Practicolella</i>	<i>Polygyra</i>	<i>Mesodon thyroides</i>	<i>Sucinea</i>	Unidentified Fragments
TU-1	1	15	--	--	--	--	13
	2	22	4	2	--	--	5
	3	28	7	4	--	--	2
	4	7	1	--	--	--	10
	5	2	--	--	--	--	6
TU-2	1	46	5	6	5	--	17
	2	51	11	8	3	1	14
	3	38	6	7	--	--	8
	4	51	4	25	2	--	182
	5	86	4	15	--	2	351
	6	46	--	15	--	1	245
	7	--	--	9	--	--	81
	8	9	--	3	--	--	11
TU-3	1	--	--	--	--	--	--
	2	--	--	--	--	--	--
	3	--	--	--	--	--	--
TU-4	1	13	--	11	3	--	22
	2	4	--	3	--	--	6
	3	3	--	2	--	--	13
	4	4	--	--	1	--	17
TU-5	1	15	--	10	6	--	21
	2	--	--	--	--	--	10
	3	1	--	--	--	--	1
	4	--	--	--	--	--	--
TU-6	1	72	4	12	5	--	93
	2	63	9	6	--	--	10
	3	80	11	18	--	--	111
	4	47	3	11	--	--	53
	5	25	6	20	--	--	30
	6	29	2	17	--	--	7
	7	36	6	2	--	--	94
	8	12	1	6	--	--	90
	9	20	--	2	--	--	21
	10	9	--	--	--	--	30
TU-7	1	4	--	7	148	--	17
	2	--	1	3	47	--	5

CONCLUSIONS

This site is not considered to be eligible for the National Register of Historic Places. Of the test units excavated, only Test Units 2 and 6, which were close to one another, yielded artifacts below 20 or 30 cm. Artifacts were generally scarce at this site. The only high-density areas occurred within the small portion of the site where Test Units 2 and 6 were excavated.

Only one diagnostic artifact was found: a Langtry dart point in Level 5 of Test Unit 2. This indicates the presence of a Middle Archaic component. The only other tool found was a biface fragment, in Test Unit 2, Level 2.

Although burned rock was found, especially in Test Unit 2, no features were observed in any of the seven (7) test units or in the three (3) trenches. The site is not likely to yield significant information about the prehistory of the region.

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