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Archeological Testing of Site 41VV801 Val Verde County, Texas

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ARCHAEOLOGICAL TESTING OF SITE 41VV801
VAL VERDE COUNTY, TEXAS

By

A. Joachim McGraw

Texas

State Department of Highways and Public Transportation
Highway Design Division
September 1986

ABSTRACT

During March of 1986, archaeologists from the cultural resources staff of the State Department of Highways and Public Transportation (SDHPT) conducted limited testing at the prehistoric site of 41VV801 in eastern Val Verde County, Texas. Portions of the site, which is located along a terrace remnant between Miers Draw and Red Bluff Creek, extend into the right-of-way of US Highway 277. The area within the right-of-way was investigated to determine the site's significance and its merit as a State Archeological Landmark. The results of testing indicated that the site had been disturbed extensively by a long span of natural processes, the most significant of which was determined to be hydrological scouring from nearby drainages. Little evidence remained of stratified cultural deposits and the material collection from excavated units was considered minimal. On the basis of subsurface examinations and analysis of recovered materials, 41VV801 is not considered worthy of State Archeological Landmark designation. Less than 10% of the estimated former site area is thought to remain relatively intact, given the past impacts of earlier highway and bridge construction, land clearing, and natural erosional processes.

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INTRODUCTION

Negative evidence from an archaeological site often can make a useful contribution toward a better understanding of prehistory as well as offering insights into modern aspects of the natural environment. A lack of cultural materials or their loss through time by natural processes may reflect significant environmental influences that have shaped the pattern of material evidence that is recognized today. The prehistoric occupation site of 41VV801 is thought to represent such a locale.

Located in eastern Val Verde County approximately 36 miles (59 km) north of Del Rio (Fig. 1), 41VV801 was first identified in October of 1985 by Daymond D. Crawford of the State Department of Highways and Public Transportation (SDHPT) cultural resources staff. Situated near the confluence of two intermittent drainages, the site is just north of Red Bluff Creek and west of Miers Draw. A portion of the archaeological site extends into the SDHPT right-of-way along US Highway 277 just north of the highway bridge over Red Bluff Creek.

This report presents the results of limited testing of this area following proposed bridge modifications that would impact a segment of 41VV801 known to exist adjacent to US Highway 277. The site was investigated in March of 1986 by Wayne C. Young and A. Joachim McGraw of the SDHPT cultural resources staff. Field support was provided by the SDHPT District 7 maintenance staff from Sonora, Texas. A total of 16 person-days was utilized during the testing period and a total of approximately 9 cubic meters of soil was excavated from four separate 1-meter-square test units. These were distributed across a 30-by-130-meter length of

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highway right-of-way. All work was performed in accordance with Procedures for the Protection of Historic and Cultural Properties (36 CFR, Part 800), procedures prescribed and endorsed by the Federal Highway Administration, and also followed the guidelines presented in the Council of Texas Archeologists' professional performance standards (Council of Texas Archeologists 1985). The site investigations were directed toward an objective determination of the location's potential for nomination as a State Archeological Landmark. Assessments of site potential were based upon the horizontal and vertical extent of cultural materials, significance of cultural deposits, and an interpretation of site integrity in the light of modern alterations and natural impacts.

The results of field work indicated that the integrity of material deposits had been severely damaged by both long-term natural processes as well as previous highway construction and land clearing. These latter effects have disturbed upper subsurface deposits to a depth of 12 cm or more. Lower deposits have been eroded by high-energy flooding episodes that have scoured normal soil deposits and have interbedded an extensive layer of calcareous gravels, pebbles, and cobbles in their place. This gravel/pebble/cobble layer was identified ca. 30 cm below the surface and graded into much larger, heavier stream-rolled cobbles and stones. A compacted silty clay layer ca. 10 cm below the surface and 9 to 12 cm thick represented the least disturbed soil zone across the site area and was tentatively associated with a light, marginal scatter of lithic debris distributed throughout the test units (see the Site Discussion and Methods of Investigation section for a more detailed

discussion). A description of the background, investigations, and interpretations of 41VV801 is presented in the following sections.

ENVIRONMENTAL BACKGROUND

Modern Environment

Val Verde County, an irregularly shaped area of 3259 square miles, is located in an environmental transition zone that includes the margins of two separate natural regions of Texas. Known physiographically as the Lower Pecos, or Pecos Lowlands (Johnson 1931:53), the zone is characterized by a deeply dissected topography. Physically, it separates the southwestern margins of the Edwards Plateau from the eroded limestone uplands of the Stockton Plateau and is considered to be an extension of the Comanchean Cretaceous limestones of the Edwards Plateau (Johnson 1931:105).

The southeastern portion of the county is associated with the Rio Grande Plain (Golden et al. 1982:1). Altitude above mean sea level (msl) varies from ca. 2350 ft. in the northern section of the county to 900 ft. in the south. Three major rivers and a number of their associated tributaries drain the area: the Rio Grande, Pecos, and Devil's Rivers. In modern times, Amistad Lake, one of the largest reservoirs in Texas, supplements the available surface water resources of the county.

Because of its distinctive physiography, Val Verde County is also considered to be part of two distinct biotic provinces of the state (Blair 1950:105). The Balconian Province, roughly comparable to the natural region of the Edwards Plateau, extends into the eastern portion of Val Verde County toward the Pecos River drainage. The area lying west of

this river reflects elements of the Chihuahuan Biotic Province. While both of these regions represent distinctive ecological areas, it should be noted that these environmental systems reflect a complex mixture of inter-regional flora and fauna as well as the greatest diversity of physiographic features of any of the biotic provinces in Texas (Blair 1950:105). In the most pragmatic perspective, the broad descriptions that identify this transition zone do not reflect the complexity of the physical elements of the general study area. From an archaeological perspective, the diversity of this environmental transition zone is further magnified by a long span of prehistoric subsistence patterns that lie superimposed across the natural resources of this landscape (Figs. 2 and 3).

The fauna of this arid region includes most of the 57 species of mammals from the Balconian Province as well as additional animals characteristic of the Mexican tableland and the southwestern deserts (Blair 1950:107-113). Mammals related to the Chihuahuan Biotic Province include ringtail (*Bassariscus astutus*), pallid bat (*Antrozous pallidis*), hog-nosed skunk (*Canepatus mesoleucus*), botta pocket gopher (*Thomomys bottae*), brush mouse (*Peromyscus boylii*), and others (Davis 1960). Larger fauna commonly includes white-tailed deer (*Odocoileus virginianus*), collared peccary (*Pecari tajacu*), and occasionally several members of the cat family: cougar (*Felis concolor*), ocelot (*Felis pardalis*), and bobcat (*Lynx rufus*). The study area is also estimated to contain approximately 16 species of lizards and 36 species of snakes. Two species of ribbon snake, the hooknose snake, and the northern blacktail rattlesnake are found only in the Balconian/Chihuahuan environments (Blair 1950:113-115).

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FIGURE 3. The environment of Site 41VV801.

Climax flora that dominates the general study area includes the ubiquitous mesquite (*Prosopis juliflora*) and thorny shrubs such as catclaw huisache, and others. The eastward extension of the Chihuahuan Biotic Province also includes such flora as beargrass (*Nolina texana*), lechuguilla (*Agave lecheguilla*), creosote bush (*Larrea*), catclaw (*Acacia greggii*), and blackbrush (*Flourensia*). Occasional stands of Texas oak (*Quercus texana*) and stunted live oak (*Quercus virginiana*) can be noted within the riparian zones of drainages. Scrubs of Mexican cedar (*Juniperus mexicana*) may also be observed in this transition zone.

Val Verde County is drained by three major river systems: the Rio Grande, Pecos and Devil's Rivers. The last is most significant to this study as Red Bluff Creek, adjacent to Site 41VV801 is a major tributary of this river system. Approximately 20 miles in length, the creek channel meanders to a confluence with an eastern fork of the Devil's River, the Dry Devil's River, ca. 12 miles west of 41VV801.

Red Bluff Creek and its environs are characterized by a sinuous, cobble-strewn floodplain often more than 50 meters wide. The extent and size of the stream-rolled cobbles and stones (some more than 40 cm in diameter) reflect the energy and velocity of flooding episodes along the intermittent drainage. Large branches of driftwood observed in a small, scoured rockshelter ca. 10 meters above the terrace suggest that past floods have completely inundated the low terrace associated with 41VV801 in the past. This phenomenon would have been characterized by several meters of rapidly moving water creating violent hydrological turbidation.

Val Verde is considered to have a semi-arid, continental climate. Average temperatures range from 35°F in the winter months to an average summer temperature of 98°F. The lowest temperature on record was noted in 1951 as 11°F. The highest summer temperature was recorded in 1960 as 111°F. Climate summaries by the National Oceanic and Atmospheric Administration, US Department of Commerce, indicate that cold periods may drop temperatures as much as 25 degrees in a few hours and temperatures as high as 100°F have been recorded as early as March. The average annual rainfall measured at Del Rio is 18.38 in.; over 60% of this falls between April and October (Golden et al. 1982:2, 98).

Post-Pleistocene Paleo-Environmental Summary

The Lower Pecos area at the end of the Pleistocene epoch, ca. 12,000 years ago, is thought to have consisted of a parkland savannah that supported such extinct fauna as camel, horse, and bison. Lundelius (1984) has suggested that uplands throughout the Lower Pecos were covered by grasslands and savannah from 14,000 to 12,000 years ago. Lundelius in part based his interpretations on the identification of such grazing animals as *Equus* and *Bison* whose faunal remains have been recovered in this area. Pinon pine dating from 16,000 to 11,000 years B.P. also has been identified in the Lower Pecos, and relic stands still can be found today in neighboring Sutton, Edwards, and Real Counties (Turpin 1985:44).

A summary by Bryant (1966) of postulated climatic changes from the Lake Amistad area just southwest of the study area suggests five chronological stages and three climatic intervals. These data were based on

faunal remains and recovered pollen from archaeological sites. This information is summarized in Table 1. Patton's (1977) data regarding flood deposits from Arenosa Shelter are compared to Bryant's (1966) work. It should be noted that studies of pollen stratigraphy at the Devil's Mouth Site suggest that climates associated with thin, fine-grained flood deposits were more humid than the present climate (Patton and Dibble 1982:109).

For a more detailed review of paleoclimates and environmental data, the reader is referred to Turpin (1984:44-7, 1985:48-52), Patton and Dibble (1982), and the cited references of Sorrow (1968:69-70) and Collins (1974).

In summary, the environmental factors that have shaped the modern character of the Lower Pecos reflect a long span of increasing aridity. The natural conditions that affected the pattern of prehistoric hunters and gatherers for millenia represent a marked contrast to the harsh, often extreme, environmental conditions of today.

TABLE 1. Post-Pleistocene paleo-environmental reconstruction, Lower Pecos area.

Years B.P.	Data based on pollen and faunal analyses, after Bryant (1966) and Patton and Dibble (1982:115)		Summary of flood deposits, Arenosa Shelter, after Patton (1977)
Present		↑ Characterized by mesquite, cactus, cedar, ephedra	Thick, coarse-grained deposits; significant increases in xerophytic plant pollen
1000	Juno Stage	xeric climate	
2000	↑ Frio Interval	Mesic conditions; bison; increase in pine	2400 B.P. Repeated, fine-grained deposits 1
3000			3200 B.P.
4000	Sanderson Stage	— drying trend	
5000	Ozona Erosional	severely hot	Coarse-grained deposits from infrequent high-magnitude floods
6000			
7000	Stockton Stage		Thick, coarse-grained deposits
8000	Humid Interval	Beginning of drying trend; decrease in pine, oak; increase in desert herbs	
9000			
10,000	Medina Stage	mesic period; bison	Sequence of fine-grained flood deposits from floods of equal magnitude
Prior to 10,000	Sabinal Stage	cool, moist	
	Sonora Interval	dry, warm	

ARCHAEOLOGICAL BACKGROUND

Previous Research

The natural conditions of the Lower Pecos, especially the aridity of the region, have contributed to the preservation of perishable prehistoric remains too often destroyed by natural processes elsewhere. Recovered materials from excavated rockshelters and caves prior to the inundation of Lake Amistad have contributed significantly to the information available for the regional archaeological record (e.g., Centipede and Damp Caves, Devil's Mouth, Bonfire Shelter, Devil's Rockshelter, Arenosa, and others).

Additionally, the identification and study of numerous pictographs in the general study area have resulted in a preliminary typology and chronological sequence of this art form.

Casual interest in the prehistory of the Lower Pecos dates to the late nineteenth century when surveyors first mapped the area (Turpin 1984:7). It was not until the 1930s, however, that formal museum and academically sponsored projects began collecting artifacts from numerous rockshelter sites. Concurrent with this work were the first efforts toward the study of pictographs by Forrest Kirkland and A. T. Jackson.

Almost a decade passed after these significant pioneering efforts; and it was not until the development of Lake Amistad in the 1950s that further systematic, salvage-oriented, research took place. Intensive surveys, limited testing, and excavations of shelters as well as

documentation of pictographs characterized these research efforts. Two results of this work were the establishment of a prehistoric chronological sequence and a recognition of the stylistic changes of the area's art style.

Since the 1970s, climatic and ecological studies (e.g., Dering 1979; Turpin 1985; and others) have integrated paleo-environmental data toward a more refined view of hunter-gatherer subsistence patterns. Further work in the Lower Pecos will contribute to a body of information that is both unique in its material context as well as its state of preservation. As such, the area's material cultural remains offer insights into the regional prehistory as well as toward inter-regional comparisons.

Chronology

The prehistoric chronological sequence derived from past studies of the Lower Pecos represents a long span of aboriginal exploitations that covers four major cultural time frames: the Paleo-Indian, Archaic, Late Prehistoric, and Historic Indian Periods. The earliest evidence of human occupation comes from 41VV218, Bonfire Shelter, where extinct bison bones have been associated with Paleo-Indian Folsom and Plainview projectile points (see also Dibble and Lorrain 1968 and Bement 1986). Another Val Verde site, 41VV162, also has some evidence of human activity 12,000 to 14,000 years ago (Hester 1980:132). Late Paleo-Indian diagnostic lithic indicators in the area also include Golondrina and Angostura projectile points. Turpin (1984:14) has observed that the remains of many Paleo-Indian activities may have long been

destroyed by natural changes and other factors. The modern identification of such remains may be due more to the vagaries of favorable preservation rather than a reflection of occupational intensities.

The predominant archaeological remains in the study area consist of sites and artifacts associated with Archaic lifeways. In the most general terms, this period is distinguished from the earlier Paleo-Indian time frame by progressive but broadly stable adaptations to slowly changing environmental conditions. The Archaic Period of the Lower Pecos (ca. 6000 B.C. to A.D. 900 or 1000) is recognized as a long span of hunters and gatherers of chronologically and probably culturally distinct bands or groups. The remains of this time are reflected in the aboriginal record by pictographs, cemetery or burial sites, and a large number of open campsites and dry shelters.

Early Archaic sites (ca. 6500 to 4000 B.C.), as in other adjacent areas in Texas, often contain a series of distinctive corner-notched projectile points similar to those identified as Bell, Martindale, Uvalde, or other poorly defined Early Corner-Notched varieties of central and southern Texas. Middle Archaic (ca. 4000 to 1000 B.C.) chronological index markers include projectile points similar to Nolan, as well as Pandale, Langtry, Almagre, and Val Verde. Commonly recognized projectile points associated with the Late Archaic Period (ca. 1000 B.C. to

A.D. 900) include dart points similar to those found in central Texas such as Montell, Castroville, Marshall, Marcos, and Shumla. Stratigraphically overlying these types are such projectile points as Ensor, Frio, Fairland, Paisano, and Figueroa. Late Prehistoric (ca. A.D. 900

to European contact) arrowpoints include Cliffton, Perdiz, Scallorn, Toyah, and Livermore. Index markers to later Historic Indian sites are often metal arrowpoints.

Story and Bryant (1966) have derived an archaeological chronological sequence for the Lower Pecos that identifies eight (local) periods ranging from ca. 11,000 B.P. to the Historic Indian Period. This sequence may be compared to Collins' (1974) nine chronological episodes for Arenosa Shelter. By far, the most complex chronology to date is Dibble's (n.d.) twelve-phase construct that ranges from a poorly defined Aurora Phase (before 12,000 B.P.) to the Historic Indian Phase (ca. 250 B.P.). The postulated sequences of Story and Bryant (1966), Collins (1974), and Dibble (n.d.) are summarized in Table 2 which, because of its usefulness, is extracted from Turpin (1985:7).

In summary, this brief overview can identify only the broadest elements of a complex and enduring pattern of aboriginal lifeways. While past researchers have glimpsed a shadow of these former peoples through their material remains, future research still must contend with the more basic problems of typology, a poorly described chronology, and the slowly disappearing evidences of past cultures.

TABLE 2. Summary of chronological sequences derived for the Lower Pecos, extracted from Turpin (1985:7).

Years BP	Story and Bryant 1966 Amistad General		Collins 1974 Arenosa/Amistad		Dibble ms. Arenosa and Amistad General		STAGES	Years BP
	Period	Index Marker	Period	Index Marker	Period	Index Marker		
1000	VIII	Metal Arrow Points	300	Clifton, Perdiz and Scallorn Arrow Points	Historic	Metal Arrow Points	HISTORIC	1000
	350	Clifton, Perdiz, Toyah and other Arrow Points	J		250	Brownware ceramics	LATE PREHISTORIC	
	VII				450	Perdiz, Clifton, Toyah and Livermore Arrow Points		
2000	950	Ensor, Frio, Paisano and Figueroa Dart Points	950	Frio and Ensor Dart Points	1000	Frio and Ensor Dart Points	LATE ARCHAIC	2000
	VI		H		Blue Hills			
	2150	Montell, Castroville, Shumla, Marshall and Marcos Dart Points	2150	Shumla and Marcos Dart Points	1750	Shumla and Marcos Dart Points		
3000	V		2450	Montell and Castroville Dart Points	2400	Montell, Castroville and Marshall Dart Points	MIDDLE	3000
	2950		2600		Cibola			
	IV	Langtry, Almagre and Val Verde Dart Points	D	Marshall, Val Verde, Langtry, Almagre and Arledge Dart Points	3200	Langtry, Val Verde and Arledge Dart Points		
4000	4450		4100		3900		ARCHAIC	4000
	III	Nolan and Pandale Dart Points	C	Pandale Dart Points	Eagle Nest	Pandale Dart Points		
	5000							
6000	5950		6000	Baker, Bandy, Gower and "Early Barbed" Dart Points	6000	Gower, Martindale, Uvalde and Undifferentiated Viejo "Early Barbed" Dart Points	EARLY ARCHAIC	6000
	II	Gower-like, "Early Barbed" Bifurcated Stem and Uvalde (?) Dart Points	B					
	8000		A	Golondrina and Angostura Dart Points				
9000	8950		9000		9000	Golondrina Dart Points	PALEOINDIAN	9000
					Oriente			
					9800			
10,000	I	Plainview, Golondrina, Plainview-like, Folsom, Angostura and Lerma Dart Points	Paleoindian	Plainview and Folsom Dart Points	Bonfire	Plainview and Folsom Dart Points		10,000
11,000								11,000
12,000					12,000	Hypothetical Earlier Occupation		12,000
					Aurora			

SITE DISCUSSION AND METHODS OF INVESTIGATION

Site investigations were directed toward the identification and assessment of prehistoric cultural materials in the highway right-of-way and adjacent to the bridge structure across Red Bluff Creek. No new right-of-way was involved in the proposed construction.

Site 41VV801 was tested by four 1-meter squares excavated to a depth of 80 cm below the surface (100.00 to 99.20 meters arbitrary elevation) along a narrow right-of-way that sloped toward Red Bluff Creek (Fig. 4). Total volume of excavated material is estimated at 9 cubic meters of soil over an identified site area of ca. 30 by 130 meters along the northeastern right-of-way segment of US Highway 277. It should be noted that only a portion of this 130-meter length (about 30 to 40 meters) is to be affected by bridge construction. A total of 16 person-days was expended during the field work which employed hand rather than mechanical excavation methods. Test Units 3 and 4, north of the construction area, were investigated as control test units to be compared with deposits from Test Units 1 and 2, as well as to establish a broader sample of site materials.

All units were excavated utilizing trowels and other small hand tools. A permanent, arbitrary datum point was established along the fence line at the edge of the east right-of-way at highway station 1504. This point was designated 100.00 meters as a vertical datum and was utilized to correlate all subsurface measurements between test units. Following intensive survey, the total original prehistoric activity area is estimated to have been 150 meters or more in diameter. Within the highway right-of-way, the effects of natural erosion as well as modern

FIGURE 4. Site 41VV801 showing location of test units and profile of topography.

highway and bridge construction have destroyed all but a remnant of this original occupation area that was examined during testing. All collected materials were processed and analyzed at the Archaeology Laboratory of the SDHPT, Austin.

Given the limited and narrow highway right-of-way in this location, a simple consistent-interval sampling methodology was utilized, with units spaced at 100-ft. (ca. 33-meter) intervals adjacent to established highway station markers. These locations offered permanent reference points in defining the horizontal relationships of tested units. A summary of individual test unit investigations is presented below.

Test Unit 1

Test Unit 1, a 1-meter square, was excavated from 99.62 to 99.02 meters (Fig. 5). This test unit was located adjacent to highway station marker 1502. The upper 10 cm of this unit consisted of a silty, fine-grained, unconsolidated upper soil zone. This zone is related to elements of the Olmos deposit--very gravelly loam, a moderately alkaline brown soil that occurs on old outwash deposits on uplands (Golden et al. 1982:75). From 10 to 30 cm below the surface, the matrix became much more calcareous and compacted with small gravel and pebble intrusions.

Over 70% of the light scatter of lithic debris collected from Test Unit 1 was recovered in the first 20 cm of soil deposits. Below a level of 30 cm, gravel pebbles and cobbles dominated the soil composition. By 50 cm below the surface, an almost solid floor of calcareous cobbles and stones (some up to 20 cm in diameter) was exposed, and these materials almost completely displaced lower soil zones.

TEST UNIT 1

TEST UNIT 2

TEST UNIT 3

0 CM 30

EXTRACTED COBBLES

TEST UNIT 4

FIGURE 5. Profiles of north wall, Test Units 1, 2, 3, 4, Site 41VV801.

No cultural features or diagnostic materials were noted or collected from this test unit. A total of 15 fragments of lithic debris was recovered from 40 cm of deposits, and 9 of these reflected some evidence of use wear and/or marginal retouch (see Table 3).

Test Unit 2

Test Unit 2, a 1-meter square, was excavated from 99.46 to 98.96 meters (Fig. 5). Located 14 meters south of Test Unit 1, this second test unit was placed along the edge of the low terrace and the margins of the modern creek channel. Natural deposits were similar in composition to those of Unit 1 and, again, large calcareous cobbles and small boulders were uncovered ca. 50 cm below the surface. A total of 16 fragments of lithic debris was collected at 10 cm intervals; these were evenly divided between upper and lower levels and separated by a sterile level 3 (20 to 30 cm below the surface; 99.26 to 99.16 meters elevation). Of the specimens recovered, 14 reflect unpatterned edge damage in the form of nicking; this nicking may have been caused by stream rolling and/or battering. A small subtriangular uniface, 6 cm in length (Fig. 6), was collected from Level 1 (0 to 10 cm; 99.46 to 99.36 meters elevation). Manufactured from a fine-grained, medium-gray chert, the artifact is characterized by multiple-angled working edges and ends. No other diagnostic artifact or features were noted in this unit.

Test Unit 3

Test Unit 3, a 1-meter square, was excavated from 99.85 to 98.95 meters (Fig. 5). Located adjacent to highway station marker 1503, Test Unit 3 was excavated to a depth of 90 cm. Although this location (like Test

TABLE 3. Provenience of collected materials from 41VV801.

SITE 41VV801		BIFACES					UNIFACES			DISTALLY REVEALED TOOLS		LITHIC DEBRIS	CORES			FLAKES				IRREGULAR FRAGMENTS		TOTAL
		QUARRY BLANKS	PREFORMS	PROJECTILE POINTS	UNTYPED POINTS/FRAGMENTS	OTHER	RETOUCH			UNIFACIAL	BIFACIAL		TOOLS	FRAGMENTS	COMPLETE	PRIMARY	SECONDARY	INTERIOR		CORTICATE	DECORTICATE	
							MARGINALLY TRIMMED	SEMI-INVASIVE	INVASIVE									SINGLE FACETED	MULTI-FACETED			
UNIT	LEVEL																					
TEST UNIT 1	1 (0-10 cm)													1				2*		1*	2*	6
	2 (10-20 cm)													1				1*		1	2*	5
	3 (20-30 cm)																	1*	1			2
	4 (30-40 cm)																			1		2
	5 (40-50 cm)																					
	6 (50-60 cm)																					
TEST UNIT 2	1 (0-10 cm)																			1		2
	2 (10-20 cm)													1 ^B					2 ^B	3 ^B		6
	3 (20-30 cm)																					
	4 (30-40 cm)																				5 ^{B,C}	5
	5 (40-50 cm)																				3 ^{B,C}	3
TEST UNIT 3	1 (0-10 cm)																			1 ^B	3 ^B	4
	2 (10-20 cm)																	1 ^H	2	1 ^B	7 ^C	13
	3 (20-30 cm)																	1			6	7
	4 (30-40 cm)																				2	3
	5 (40-50 cm)																				1 ^B	1
	6 (50-60 cm)																			1	1	2 ^J
	7 (60-70 cm)																				2	2 ^K
TEST UNIT 4	1 (0-10 cm)																	1	1		4 ^{B,C}	6
	2 (10-20 cm)																	1			8 ^L	9
	3 (20-30 cm)																			2	7	9 ^M
	4 (30-40 cm)																				4 ^G	4
	5 (40-50 cm)																					1
	6 (50-60 cm)																					
	7 (60-70 cm)																					
EXCAVATED LITHIC MATERIALS TOTAL				2		1	1							4			1	7	5	10	61	92
SURFACE COLLECTION				1 ^Q (Fig. 6E)		1 ^P	1 ^S	2						3			2				4 ^{O,K}	

Notes to Table 3.

" Indicates use/wear or marginal retouch

A = Interior flake, marginally trimmed along dorsal edges

B = Edge damage (nicking, etc.) may be due to stream rolling

C = 1 specimen, a decorticate chip, is burned

E = Extensive level of stream-rolled gravels

F = Perdiz

G = 2 specimens reflect use-wear edge damage

H = Possible notching

I = Marginally trimmed

J = Specimens extensively patinated

K = 1 specimen burned

L = 3 specimens burned; 1 steep semi-invasive edge bevel

M = 4 specimens burned

N = Corner-notched dart point

O = 3 specimens with edge use/wear damage

P = Distal end, alternately beveled

Q = Percussion flaked

R = 1 specimen, patinated, steep alternate edge beveling

S = Marginally trimmed; possible use-wear

FIGURE 6. Collected artifacts from Site 41VV801. A, subtriangular uniface, Test Unit 2; B, Perdiz arrowpoint, Test Unit 3; C, marginally trimmed uniface, Test Unit 3; D, extensively reworked projectile point, Test Unit 4; E ovate, marginally trimmed biface, surface collected.

Unit 4) was not under primary construction impact, it was thought that its proximity to Test Units 1 and 2 as well as its upslope location could define more clearly the extent and density of cultural deposits of 41VV801.

Natural deposits of Test Unit 3 consisted of a surface layer of unconsolidated, medium-brown topsoil with numerous root intrusions. Underlying this at 10 to 30 cm was a more compacted clayey matrix. A gravel/pebble composition in the lower levels of the compacted zone gradually increased in both size and density. The middle and lower levels of this unit (99.50 to 98.95 meters) consisted almost entirely of mixed gravels and pebbles. While recognizing the extent of slope involved, this deposit may be contrasted to the large stones and small boulders observed at approximately the same depths in Test Units 1 and 2.

A total of 32 fragments of lithic debris was collected from this unit as well as a single Perdiz arrowpoint (Fig. 6B) at 99.73 meters (Level 2, ca. 12 cm below the surface). A detailed breakdown of lithic debris characteristics is presented in Table 3. In general, almost 80% of the lithic materials were recovered in the first three levels. A total of 3 specimens reflect some edge alteration in the form of nicking and notching, and an additional 6 show random edge damage. The degree of patination on both corticate and decorticate chips in Level 6 (50 to 60 cm below the surface; 99.35 to 99.25 meters) suggests a chronologically earlier activity sequence that predates the overlying Perdiz-associated occupation(s). No features or other diagnostic artifacts were noted or collected in Test Unit 3.

Test Unit 4

Test Unit 4, a 1-meter square, was excavated from 100.11 to 99.36 meters (Fig. 5). Test Unit 4 was located 4 meters south of highway station marker 1504 and ca. 33 meters north of Test Unit 3. Four soil and sub-soil layers were noted in the unit which was excavated to a depth of 80 cm. The upper soil zone consisted of uncompacted, fine-grained topsoil. This soil graduated into a more compacted, less organic zone between 20 to 30 cm below the surface. Small gravel and pebble intrusions occurred at ca. 30 cm and became a compacted pebble/gravel layer interspersed with calcareous cobbles from 40 to 80 cm.

Lithic debris was concentrated in the upper 3 levels. A single diagnostic projectile point (Fig. 6D) was found in Level 5 (99.61 meters, ca. 50 cm below the surface) but was not associated with other cultural materials or features. Its presence within the upper gravel/pebble layer may indicate a disturbed primary or even secondary, redeposited, context. The dart point resembles Black and McGraw's (1985:121-123) south-central Early Expanding Stem, Group 4, Form 2. This poorly defined type is described in more detail in the Cultural Materials section of this report.

In summary, examination of hand-excavated test units at 41VV801 has identified a light scatter of lithic debris concentrated in the upper 25 cm of a medium-brown, fine-grained silty soil deposit. Numerous examples of random nicking and battering of these materials suggest diachronic episodes of natural turbidation. The evidence of a Late Prehistoric Perdiz arrowpoint as well as an Early Archaic dart point

may be related to at least two identifiable occupations at this site. The presence of underlying interbedded gravels that take the place of lower soil zones also indicates extensive and violent hydrological scouring of this location. The natural impacts on Site 41VV801 have seriously effected the depositional integrity of cultural materials and this fact should be a consideration of both intra- and intersite interpretations.

CULTURAL MATERIALS

Cultural materials from the prehistoric occupation at Site 41VV801 consist of 92 fragments of lithic debris recovered from subsurface contexts. This total includes 2 broken projectile points, a Perdiz arrowpoint, and a reworked Early Expanding Stem dart point. Other fragments of debitage totaling 14 specimens were surface-collected from the site area. The provenience of this material and identified individual characteristics are presented in Table 3. The reader is referred to Crabtree (1972) and Black and McGraw (1985:66-75) for a more detailed discussion of the characteristics and definition of unmodified and modified lithic debris. The 2 diagnostic projectile points are discussed below and are illustrated, as are other selected artifacts referred to in Table 3, in Figure 6.

Specimen 1

The Perdiz arrowpoint (Fig. 6B) was recovered from Test Unit 3 at 99.75 meters elevation. It measures 4.57 cm long, 2.00 cm wide, and 0.35 cm thick. Stem length is 1.43 cm. Weight is 2.5 gr.

This specimen lacks ca.5 mm of one of the blade's barbs. Blade edges are slightly convex and one blade face is only marginally retouched. The stem is contracting and stem length is approximately 1/3 of the total length. This arrowpoint is similar to those described by Suhm and Jelks (1962:283) and Turner and Hester (1985:187) as the Late prehistoric Perdiz type (A.D. 1200 to 1500). The specimen falls within the upper range of measurements for this type and appears similar to other

specimens recovered from 41KM16, the Buckhollow Site, in nearby Kimble County, ca. 112 kilometers (70 miles) northeast of 41VV801 (Denton n.d.). It should be noted that six radiocarbon assays thought to be associated with this Perdiz variant from 41KM16 range from A.D. 1600 $\pm$ 60 to A.D. 1840 $\pm$ 50. Five of the assays range between A.D. 1600 to A.D. 1760, with a maximum range spread of $\pm$ 70 years. These dates, of course, strongly suggest a Historical Indian context for this type.

Specimen 2

Specimen 2 is an Early Expanding Stem dart point (Fig. 6D). Its provenience is Test Unit 4, 99.66 meters. Measurements are: length, 5.43 cm; width, 2.38 cm; thickness, 0.72 cm. Weight is 10.5 gr.

Completely patinated, this specimen consists of a narrow, triangular-bladed dart point with an alternately beveled distal end. Reworking in the form of abrasion of the blade edges below the beveling has altered the angle and extent of the original blade edges. The stem is slightly expanding and the basal concavity is quite shallow. The original extent of corner notching has been effected by lower blade edge abrasion. The edges of the shallow basal concavity are the only portions of the specimen that have not been dulled.

The reworking of this artifact, especially the extent of blade and stem abrasion, suggests a purposeful dulling along most of the specimen's length, perhaps for hafting. It is possible that such binding would be necessary, for example, to compensate for the severe twisting,

shear-stress movement generated during use as a perforator of hard materials. The artifact's utilization as a perforator is reflected by the alternate beveling of its distal end.

Morphologically, this specimen is similar in general characteristics to Weir's (1976:Fig. 9d) and Turner and Hester's (1985:155) Uvalde type. Black and McGraw (1985:123), however, have pointed out that this type is poorly defined. Given the type's early chronological context, this report will follow the format of Black and McGraw (1985) and identify it as an unnamed variant of Early Expanding Stem, Early Archaic dart point (Group 4, Form 2) (see also Black and McGraw 1985:121-123; Weir 1976; Suhm and Jelks 1962:255; and Hester 1980:98,146-149, for a further discussion of this type and its chronological context).

SUMMARY

Site 41VV801 represents the disturbed remains of a small, open campsite occupied during at least two widely separated cultural periods of the prehistoric past. The remains of these early activities have been severely affected by hydraulic scouring of the low terrace above Red Bluff Creek. Random nicking and abrasion of much of the recovered lithic debitage suggests that some buried materials are in a secondary, or redeposited, context. The upper soil zone of Site 41VV801, to a depth of 25–30 cm, contains elements of at least one Late Prehistoric Perdiz-associated occupation. The paucity of lithic materials and features, however, suggests that the main site area is beyond the modern highway right-of-way or has been destroyed previously by earlier highway/bridge construction.

A review of Figure 7 and the material proveniences of Table 3 indicates an upper deposit of cultural materials that noticeably increases upslope and perhaps beyond the areas of Test Units 3 and 4. Levels 2 and 3 of Unit 3 and Levels 1 through 3 of Unit 4 contain almost 48% of the total recovered subsurface lithic debris from the site. This recovery is contrasted to the ephemeral traces of a lower cultural deposit noted in the lower levels of all tested units. A composite profile illustrating the material distributions and intrasite stratigraphic relationships is presented in Figure 7.

The two chronologically diagnostic artifacts, a large Perdiz arrowpoint and an Early Archaic dart point recovered from testing, reflect a long span of sporadic site occupation. Although Perdiz arrowpoints in other

B

C

FIGURE 7. Composite stratigraphic profile at 41VV801. A. Deposits along east walls, Test Units 1-4; B, gravel/pebble matrix along north wall and floor of Test Unit 4; C, calcareous cobbles and interbedded gravels in floor of Test Unit 1.

adjacent regions of Texas range in age from ca. AD 1200 to AD 1500 (Turner and Hester 1985:187), the radiocarbon assays associated with specimens from nearby 41KMI6 in Kimble County (Denton n.d.) suggest an Historic rather than a Late Prehistoric context. Unfortunately, the lack of other diagnostic materials or features preclude any further substantive interpretations of this time span at Site 41VV801.

The remains of earlier occupational sequences at 41W801 are characterized by the stratigraphic position of the second diagnostic specimen, an Early Expanding Stem reworked dart point. Recovered from the upper limits of an extensive gravel/pebble deposit and overlying deposits of large water-worn cobbles, it is representative of materials that have been severely impacted by natural erosional processes. The limited scope of work at Site 41VV801 precludes a detailed discussion of the causes and effects of episodic flooding in this area of the Lower Pecos. Sorrow (1968:65), for example, discusses a major erosional period of prehistory prior to 4000 B.P. in which the edges of river terraces were extremely eroded; he suggests that this erosional episode may have been triggered by a continuing trend toward increasing aridity.

Other researchers (Patton and Dibble 1982:119) have pointed out that changes of the area's hydrology, especially sediment load, are related to specific xeric or mesic conditions. They suggest that periods of aridity decrease the vegetation along slopes and promote the transportation of coarse-grained sediments, perhaps like the large cobbles and boulders in the lower levels of the site's test units. Patton and Dibble (1982:117) also point out that the degree of sinuosity (of stream morphology) may be related to the frequency and magnitude

of stream flow during flooding episodes. Periods of channel/terrace evolutions may be characterized by buried soil depositions related to humid/wet climatic phases as contrasted to flood gravel deposits of arid phases.

In conclusion, future researchers of site patterns and distributions should recognize the significance of Site 41VV801 and its reflection of site destruction by episodic flooding sequences. That certain elements of such site patterns have become almost unidentifiable should be a careful consideration in the formulation of a regional chronological sequence and inferences toward changing patterns of resource exploitations.

RECOMMENDATIONS

Following intensive survey, limited testing, and material analyses, Site 41VV801 is considered to represent the remains of a prehistoric temporary campsite location that was sporadically occupied during the Late Prehistoric (possibly Historic) and Early Archaic time frames. Given the extent of natural impacts and the severity of site destruction due to hydrological scouring, as well as the paucity of cultural remains, no further work is recommended. For the same reasons, it is felt that Site 41VV801 does not warrant designation as a State Archaeological Landmark.

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