

**An Archaeological Evaluation of
Three Prehistoric Sites
Upper Cibolo Creek Watershed,
Kendall County,
South Central Texas**

FRED VALDEZ, JR. AND A. JOACHIM MCGRAW

Center for Archaeological Research
The University of Texas At San Antonio
Archaeological Survey Report, No. 44

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INTRODUCTION

During the summer of 1977, personnel from the Center for Archaeological Research, The University of Texas at San Antonio (UTSA), conducted archaeological test excavations at three sites along Frederick Creek in Kendall County, Texas. These sites were located in areas proposed for modification by the construction of Floodwater Retarding Structure #3 in the Upper Cibolo Creek watershed. The field work was conducted under a contract between the Center for Archaeological Research and the United States Department of Agriculture Soil Conservation Service (Purchase Order No. 40-7442-7-1212).

An initial survey of the area had been conducted in February 1975, and resulted in the documentation of two historic and 17 prehistoric sites (Bass and Hester 1975). Three prehistoric sites, 41 KE 46, 41 KE 54 and 41 KE 57, were recommended for testing to evaluate their importance.

To more clearly define the archaeological potential of these three sites, the investigations had two major objectives: (1) to accurately determine the horizontal and vertical extent of the cultural deposits; and (2) to evaluate these archaeological resources in terms of possible nomination to the National Register of Historic Places.

PREVIOUS ARCHAEOLOGICAL RESEARCH

Although Kendall County contains a portion of the upper Guadalupe River watershed and possesses attractive natural resources, less than 100 archaeological sites have been recorded (as compared to more than 400 in neighboring Bexar County). Since 1975, limited professional investigations have concentrated along the Cibolo Creek watershed (Bass and Hester 1975; Kelly and Hester 1976a, 1976b). Amateur investigations in recent years have also been limited to the immediate Cibolo Creek drainage. One recent report of work near the upper Cibolo Creek by Patterson and Adams (1977) documents several campsite-quarry sites.

Aboriginal activities in Kendall County seem to have been centered around open campsites, burned rock middens and the occasional use of rockshelters (Hester 1975). These sites date from the late Paleo-Indian to the Late Prehistoric periods. Most sites are usually located on terraces overlooking drainages. Four major chronological periods are generally recognized for the region: *Paleo-Indian* (9200-6000 B.C.), *Archaic* (6000 B.C.-A.D. 500/1000), *Late Prehistoric* (ca. A.D. 500/1000-1500) and *Historic* (A.D. 1500+).

FIELD INVESTIGATIONS

The field work of the Center for Archaeological Research in connection with this project was under the overall supervision of Dr. Thomas R. Hester, Director of the Center, and Mr. Jack D. Eaton, Assistant Director. The archaeological field team consisted of Fred Valdez, Jr., crew chief, and Wayne Cox and A. Joachim McGraw, assistant archaeologists.

As noted above, Bass and Hester (1975) had identified nine sites, 41 KE 28, 41 KE 40, 41 KE 41, 41 KE 42, 41 KE 46, 41 KE 54, 41 KE 57, 41 KE 58 and 41 KE 59, during the initial survey. Of these, 41 KE 46, 41 KE 54 and 41 KE 57 had been recommended for testing in order to provide a better evaluation of their archaeological potential. All nine sites have been discussed in detail in Bass and Hester (1975). The three tested sites will be described in detail below. Their locations are shown in Fig. 1.

Sites 41 KE 46, 41 KE 54 and 41 KE 57 were revisited by the UTSA field team for testing and re-evaluation. Site 41 KE 54, a long, narrow site on the edge of a terrace, was tested in three locations on a northeast-southwest axis with all excavated material being passed through a 1/4-inch mesh screen. Sites 41 KE 46 and 41 KE 57 were both tested with units laid out as shown in Figs. 2 and 5. Here, too, all excavated material was screened through 1/4-inch mesh. Test pits were usually one-meter squares, with some testing at 41 KE 57 in the form of 50-cm squares. Standard archaeological methods and procedures were used as set forth in Hester, Heizer and Graham (1975). All excavated materials were taken to the UTSA Archaeology Laboratory for processing and analysis. Field records are on file at the Center for Archaeological Research office.

RESULTS OF FIELD INVESTIGATIONS

41 KE 46

The site is located on a rocky knoll on the western edge of the large bend at the upper end of Lake Oz, roughly 120 m northwest of site 41 KE 54. The site is about 80 m x 120 m and is roughly rectangular in plan (Bass and Hester 1975:22). Abundant lithic materials were scattered on the surface, including chert flakes, points, bifaces, cores and a burned rock accumulation approximately 15 m in diameter. The general surface collection from the preliminary survey included one stemmed dart point, several biface fragments, preforms and an assortment of primary, secondary and tertiary flakes. Not noted during the earlier survey but perhaps important to its location as a center for aboriginal activity was the site's proximity to a large spring along Frederick Creek.

During the present investigations, seven one-meter squares were excavated to a maximum depth of 40 cm using arbitrary 10-cm levels (Fig. 2). The excavation units were placed at 10-m intervals along north-south and east-west axes laid out across the site. Most units reached limestone bedrock or sterile caliche within 30 cm. The maximum depth of cultural materials never exceeded 25 cm and most of the remains were recovered in the upper 15 cm. A detailed description of excavation procedures is on file at the Center.

Cultural materials recovered during the limited excavations consisted of lithic debris and *Rabdotus* sp. snail shell concentrations. Most prominent among the lithic debris were secondary and tertiary flakes (see Table 1), often fire-reddened and less than 1 cm in length. No ceramics, bone or diagnostic

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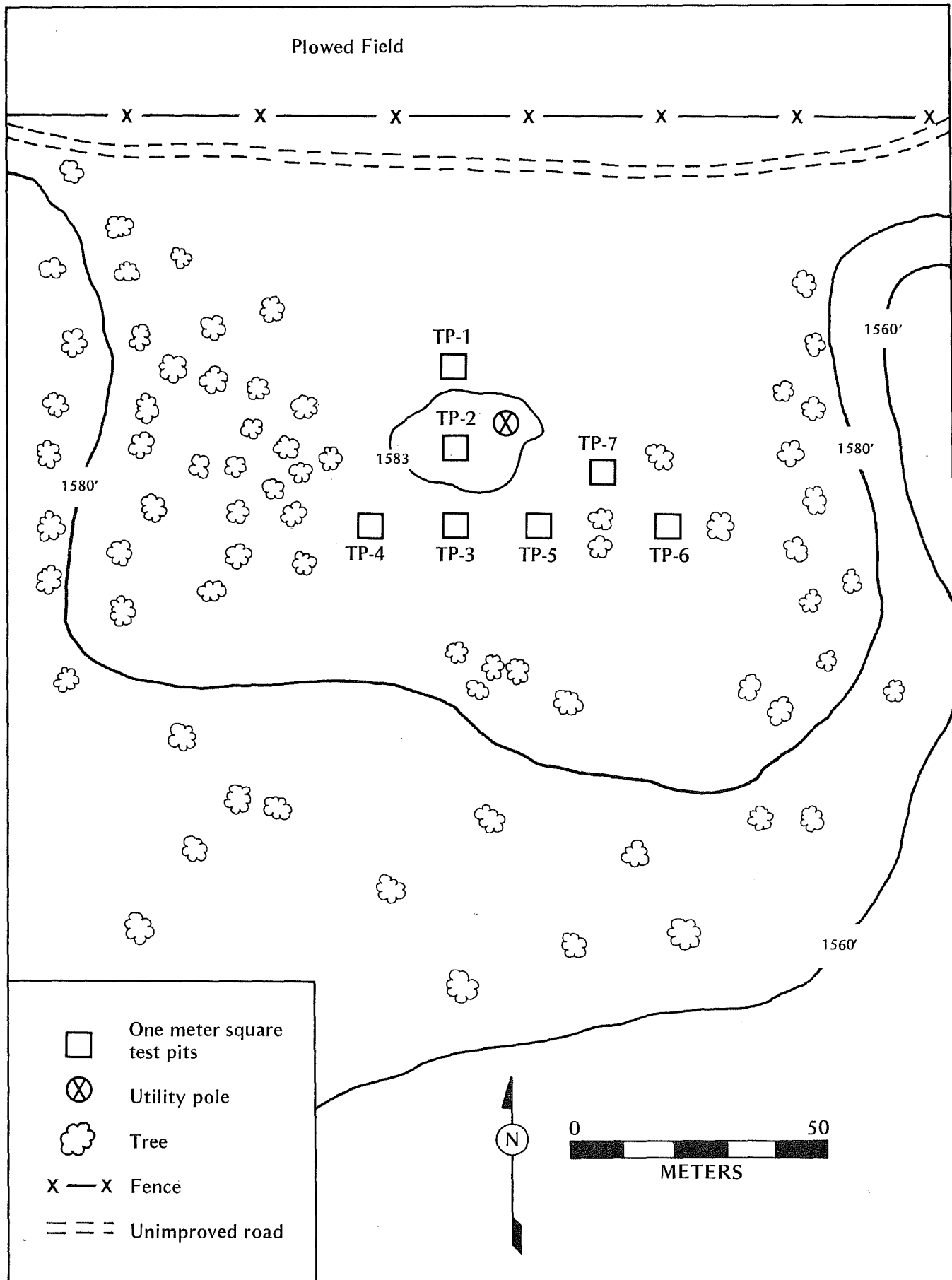
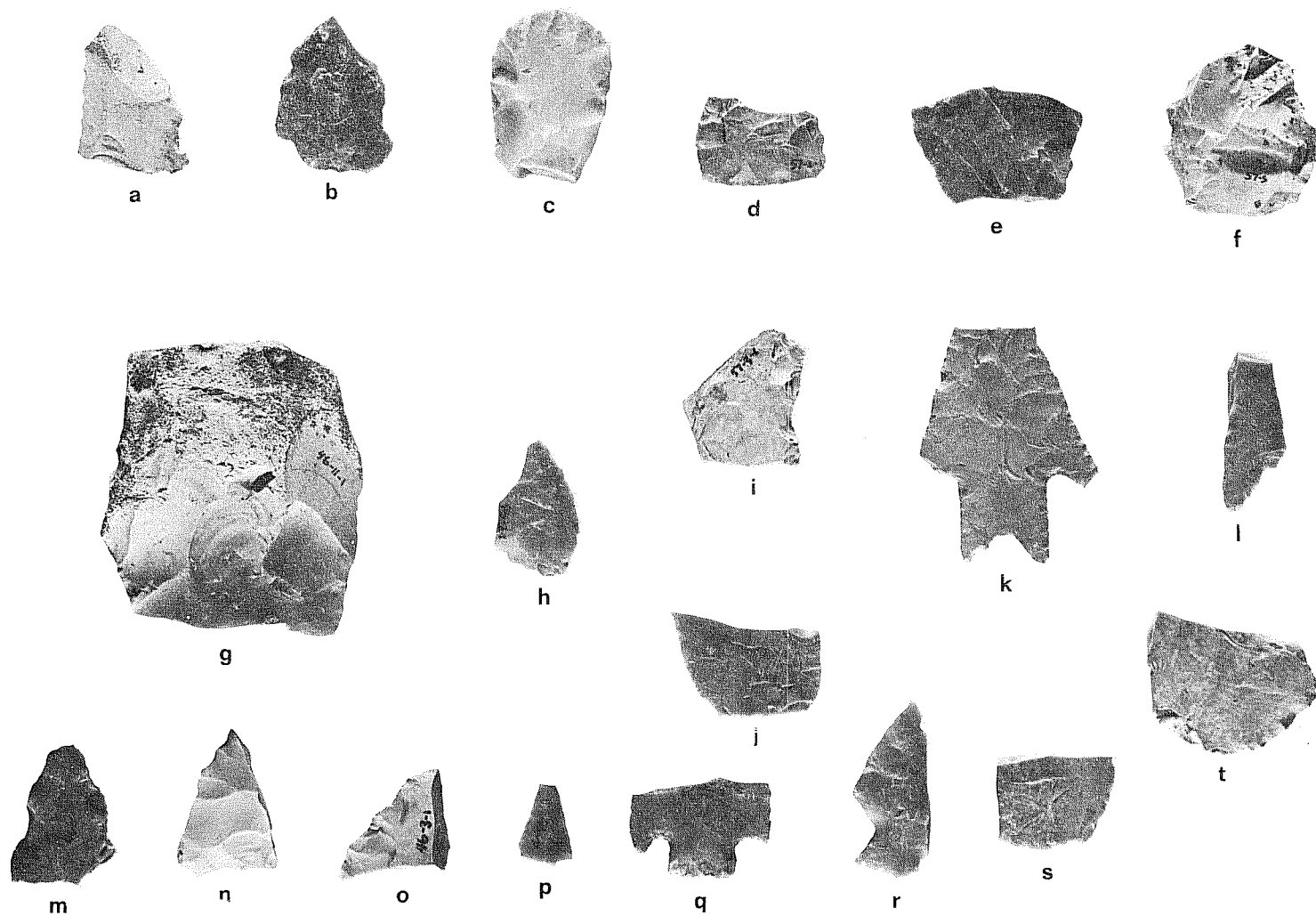


Figure 2. 41 KE 46. Locations of test units are shown.



cm | 1 | 2 | 3 | 4 | 5 |

Figure 3. *Lithic Artifacts*. 41 KE 46: a, worked flake; b-c, thin bifaces; g, chopper-like biface; h,m-o, crude bifaces; p, medial portion of arrow point. 41 KE 57: d, basal section of biface; e, medial portion of crude biface; f, thin biface fragment; i, medial portion of projectile point; j, medial portion of thin

TABLE 1

Provenience of Collected Materials from 41 KE 46

Excavation* Units/Levels	Cores	Primary Flakes	Secondary Flakes	Tertiary Flakes	Chips	Marginally Trimmed Unifaces	Bifaces and Fragments	<i>Rabdotus Sp.</i> Snail Shells	Total Lithic Materials Per Level
1-1		1	2	5	7		1		16
2-1			3	13	30			62	46
2-2		1	1	5	5		1	323	13
3-1		1	1	9	29	1	2		43
3-2			1	1					2
3-3					1				1
4-1			1	11		1			13
5-1	1	1	12	36	123	2	1		175
5-2			1	1	9		2		13
6-1		11	68	241	25		2		347
6-2		1	6	21	4				32
7-1		3	9	39	253	4	3		311
7-2				9					9
TOTALS	1	19	105	391	486	8	12	385	

* Only the units/levels which produced artifacts are listed.

projectile points were recovered; however, Mr. Julius Gompert, the current property owner, has in his collection several *Pedernales* dart points and large, thin, finely worked bifaces (averaging 10 cm in length) which he had previously collected from the site.

Based on excavations and analysis of the recovered artifacts, 41 KE 46 appears to have been the site of prehistoric occupation and probably lithic workshop activity (see Table 1). Because of the lack of cultural depth and a scarcity of significant archaeological materials, no further work is recommended at this site.

41 KE 54

During the current project this site was tested and re-evaluated to determine its actual extent. Preliminary observations in 1975 suggested the site, located to the north of and adjacent to 41 KE 46, was, in all probability, a continuation of that site. Areal measurements were defined as 20 m x 60 m; however, the site appears much larger. Although no surface collection was made at this site in 1975, a limestone metate was noted and recorded.

When the site was revisited in July 1977, the metate recorded earlier was not found. While lithic scatter was evident adjacent to 41 KE 54, it was also noted for another 275 m or so, downstream along the drainage terrace toward Lake Oz. No diagnostic projectile points were found, although there was a moderate to heavy scattering of flakes, fire-cracked rocks, and occasionally, a preform or uniface. The extent of the site northward, away from the creek, was not accurately determined due to disturbance from modern-day plowing. Several transects across the plowed field revealed lithic debris scattered as far as 75 m north of the drainage.

A hearth was noted about 30 m north of 41 KE 46 along the terrace overlooking Frederick Creek. A 1-m² test pit was laid out on top of the hearth and excavated to 25 cm. Only a few (4) tertiary flakes were found on the surface and no cultural debris was noted below the depth of 3 cm. Subsequent to the hearth excavation, two more 1-m² test pits were excavated along the terrace at 75-m intervals. During the course of the excavations, it became evident that there was no cultural debris below 5 cm in any of the test pits. The excavators noted a change in the color, composition and texture of the soil 4 to 5 cm below the surface. This was noted as a transition from a dark to medium gray clayey loam to a distinctly fine-grained clay-like material. The latter fits the general description of the "C" soil horizon of the Krum soil series of Kendall County (SCS personnel, personal communication 1977), usually found about 40 inches below the surface. It is postulated that heavy erosion along the terrace in the past has removed the upper soil horizons and has exposed once-stratified lithic debris.

Because of the shallow depth of cultural deposits and the lack of significant numbers of artifacts, no further work is considered necessary at this site.

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41 KE 57

This site lies on the south side of Frederick Creek just east of where an unimproved dirt road crosses the stream. The site is estimated to be about 45 m in diameter. Flakes and a few biface fragments were noted on the surface. Bulldozing and relic collection have led to considerable destruction at the site. The bulldozer cut two rings around the midden giving it a "doughnut" shape. Because of the severe disturbance of the site it was difficult to place excavation units in undisturbed areas of the midden. The pattern of testing (Fig. 5) led to the placement of some test units next to the bulldozer track allowing for investigation of this partially disturbed area.

This site has been defined as a burned rock midden (Bass and Hester 1975:23). The problems of burned rock middens, the method of excavations and the function of these sites have been discussed by several authors (Kelley and Campbell 1942; Kelly 1960; Hester 1970, 1973, 1975; Weir 1976). Two of the three sites tested during the current project (41 KE 46 and 41 KE 57) have burned rock middens on them. As stated by Weir (1976:34), "no sites are more characteristic of central Texas (Archaic) sites" than the burned rock middens. Kendall County provides an ideal example of this statement with approximately half of its recorded sites listed as burned rock middens (Hester 1975). However, they are highly variable in form. Perhaps a more appropriate term for some of these sites may be "burned rock accumulations" or "burned rock scatters," depending on size and depth (Gerstle, Kelly and Assad 1977; Weir 1976:40).

In testing 41 KE 57, 1-m² excavation units were placed at 10-m intervals across the site, while 50-cm² units were located 5 m apart. Excavation of unit 57-1 went to the greatest depth at 60 cm below the surface, although cultural material ended at approximately 53 cm. As noted in Table 2, the largest amount of material was located in the upper excavation levels. Fig. 7 shows the relation between chert flakes and land snail shells (*Rabdotus* sp.) both at the center of the midden and toward the fringe or periphery. It is interesting to note that the number of snail shells is extremely high in relation to chert flakes in the center of the accumulation, while they decrease in the fringe area. The large number of snails occurring toward the center of the midden was concentrated in small clusters. Whether this is a natural occurrence or related to aboriginal activities at this site is still undetermined.

The amount of burned rock, the site's location on a low terrace, and its easy access to the creek might typify the site as a probable food processing station, with occasional campsite activities. So little cultural material was found in or associated with the site that we feel the heavy (or intensive) occupation areas must have been located elsewhere, and this site may have been used for very specialized activities. Fig. 6 provides a detailed profile of the south wall in excavation unit 1 at this site. Only three diagnostic points were located during the excavations and Mr. J. Gompert, an eyewitness to the disturbance of the site, noted that few diagnostic points were found during the bulldozing.

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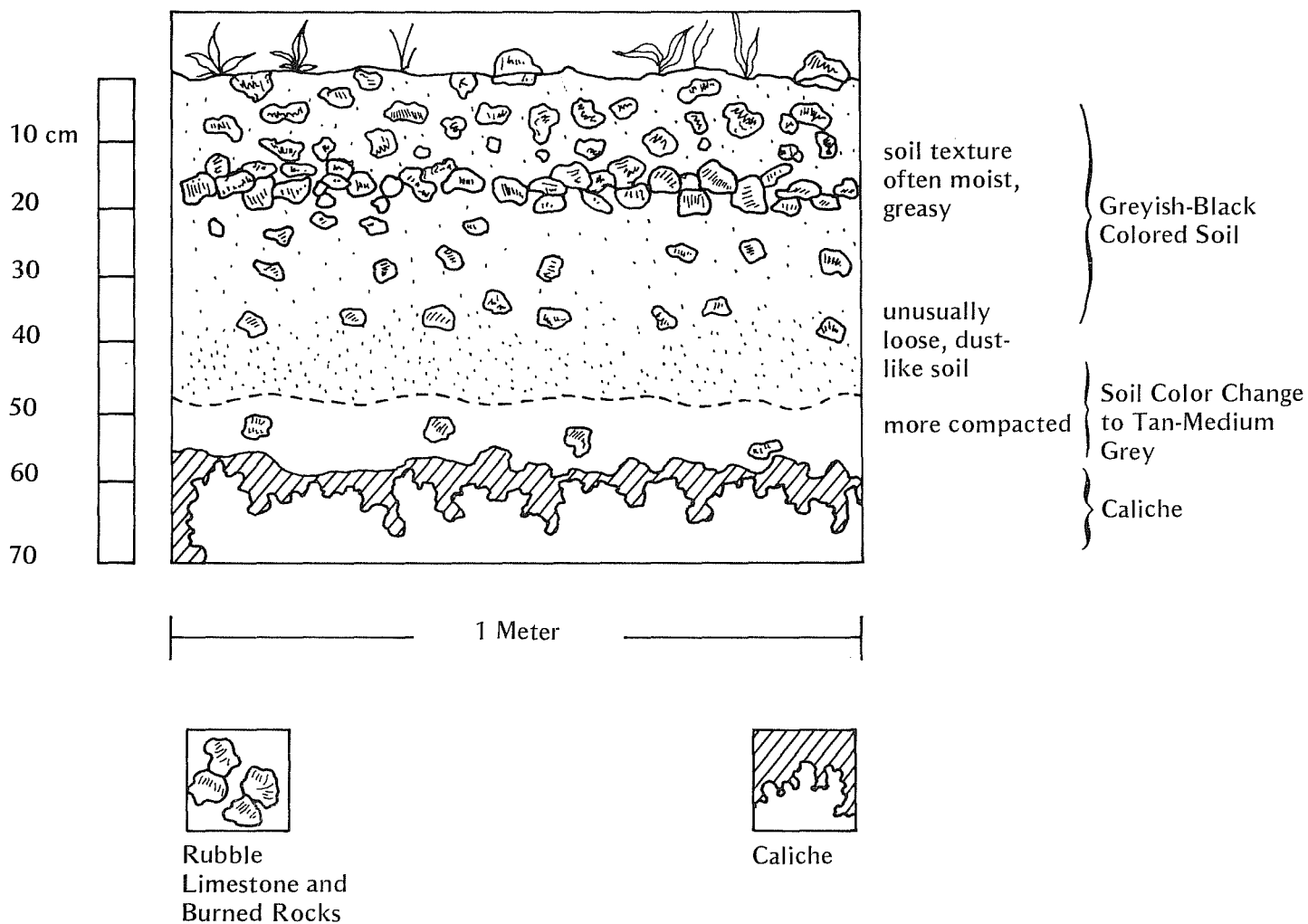


Figure 6. 41 KE 57. Profile of south wall of Test Pit 1.

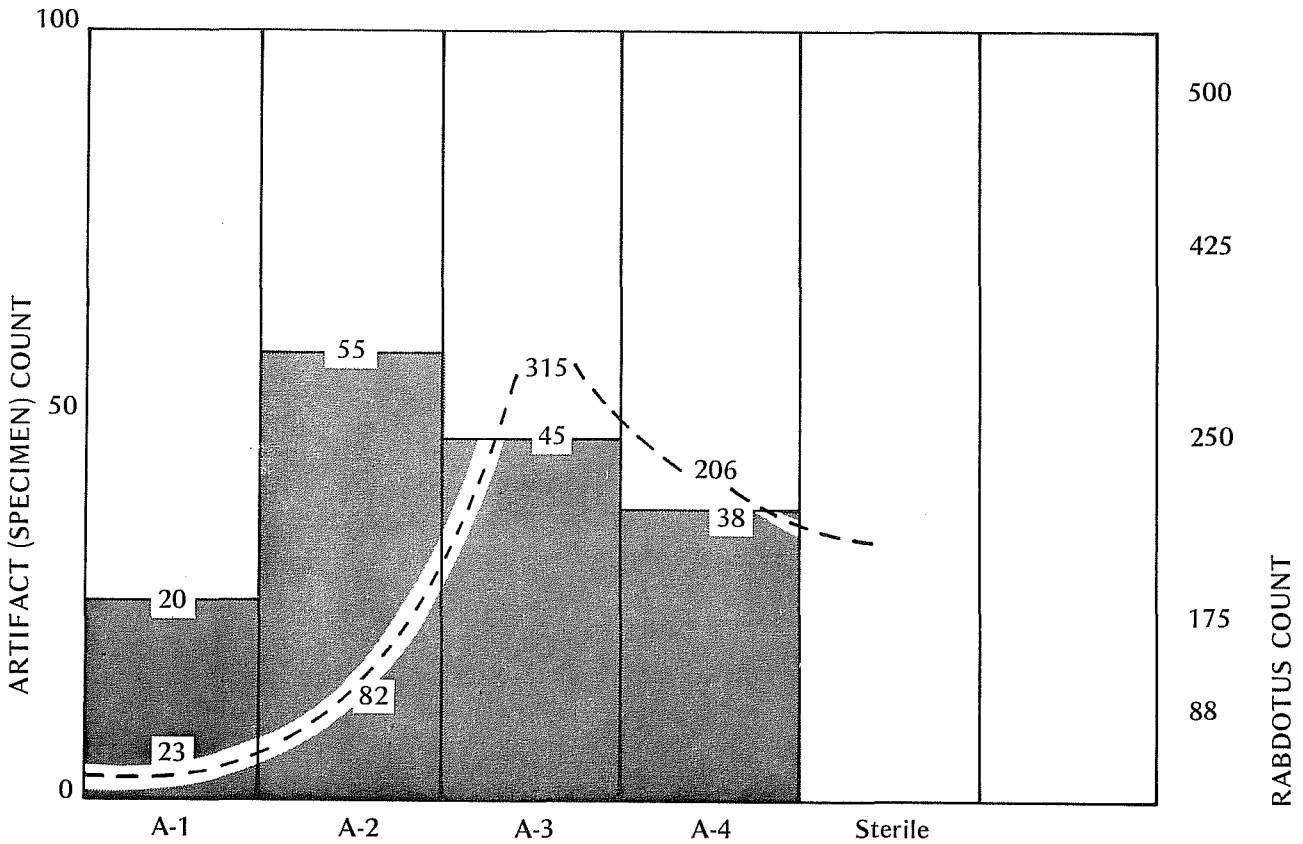
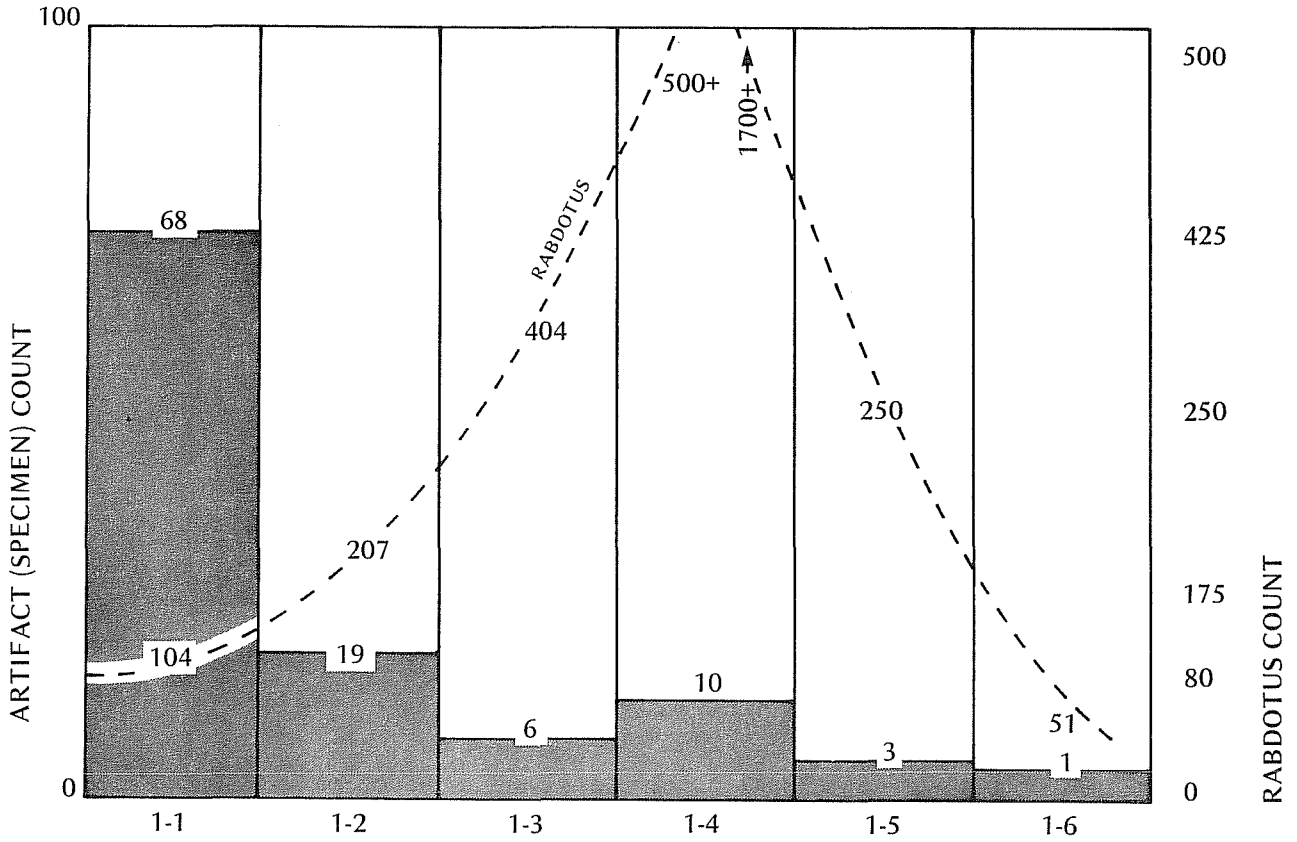


Figure 7. 41 KE 57. Correlation of *Rabdotus* sp. shell concentrations with total artifact count in Test Pit 1 and Test Pit A. a, Test Pit 1 (center of midden area); b, Test Pit A (fringe area of midden).

TABLE 2

Provenience of Collected Materials from 41 KE 57

Excavation * Units/Levels	Cores	Core Tools	Primary Flakes	Secondary Flakes	Tertiary Flakes	Chips	Marginally Trimmed Unifaces	Bifaces and Fragments	Dart Points	Total Lithic Material Per Level	<i>Rabdotus Sp.</i> Snail Shells
1-1	1		1	6	60					68	104
1-2	1		2	1	15					19	207
1-3				1	4	1				6	404
1-4			1	1	8					10	+1700
1-5					3					3	250
1-6					1					1	51
2-1			1	2	29			3		35	6
2-2			2	1	28	1				32	5
3-1			2	2	37	2		2		45	4
4-1			2	4	62	3				71	3
4-2			1	5	19					25	9
A-1			2	1	16	1				20	23
A-2			1	5	47		1		1	55	82
A-3		1		1	43					45	315
A-4	1			5	30	1				37	206
B-1			3	5	34	2				44	13
C-1					2					2	
D-1					4	1	3			8	
F-1				1	7					8	15
F-2					4					4	10
H-1			2	2	14				1	19	24
H-2					5					5	5
J-1			1	2	6				1	10	1
K-1			4	9	100	2				115	24
K-2	1		1	4	21	1				28	14
L-1				3	3	1			1	8	32
L-2					2	1				3	12
L-3					4					4	39
TOTALS	4	1	26	61	608	17	4	5	4		3558

* Only the units/levels which produced artifacts are listed.

Of the four dart point fragments recovered during excavations two have been identified as *Pedernales* (Fig. 3,k,l), one is a *Marshall* (Fig. 3,q; Suhm, Krieger and Jelks 1954) and the fourth was unidentified (Fig. 3,r). The three identifiable points were located in the upper 10 cm of the excavation while the fourth was in the second level at 12 cm. Other biface medial sections or biface fragments discovered during the course of the excavations are presented in Fig. 3. Of the chipped stone debris recovered, interior flakes were overwhelmingly dominant (Table 2). This may be the result of a final stage in the manufacture of tools possibly related to food processing or occasional campsite activities. Chipped stone and debris distributions are shown (by unit and level) in Table 2. A detailed report of excavation procedures and results is on file at the Center for Archaeological Research.

As a result of intensive testing (16 units) and the analysis of artifacts, 41 KE 57 appears to have been a site of limited use for specialized activities. Due to the great amount of disturbance already done at the site and the small amount of significant cultural debris, no further work is recommended at this site.

SUMMARY AND RECOMMENDATIONS

Testing of three sites on Frederick Creek in Kendall County, Texas, was conducted in July 1977. After redefining the boundaries of the sites and conducting an intensive surface inspection, testing was initiated. The first site tested was 41 KE 54, a terrace site. Testing at this site (three units) revealed no cultural material below 5 cm. The probability of much erosion was apparent as a "C" soil horizon was located at depths of 25 cm. Cultural material was limited to a few flakes. 41 KE 46 was the second site to be tested and had within its boundaries a partially eroded burned rock accumulation. Seven test pits were excavated at this site, including one unit placed in the center of the burned rock accumulation. All units encountered bedrock or caliche at 30 cm. Cultural deposits did not exceed 25 cm and most of the material was located above 15 cm. Diagnostic materials were not found at this site during intensive survey or during the testing period. The third site, 41 KE 57, is a burned rock accumulation which has been greatly disturbed by bulldozing and relic-collecting activities. At 41 KE 57 sixteen units were dug: four 1-m² units and twelve 50-cm squares. Considering the extent of testing at this site not much significant cultural material was found. The presence of burned limestone and the lack of much artifactual material leads us to suggest that the site was possibly an area for specialized activities (e.g., food processing), as opposed to an intensively or repeatedly occupied zone. Of the four dart points located, two have been identified as *Pedernales*, and one as *Marshall* (the fourth was unidentified), indicating use of the area during the Middle Archaic period.

Due to the extent of erosion at site 41 KE 54 and lack of potentially significant cultural material, no further work is recommended. Site 41 KE 46 appears to be a very shallow, widespread site with very little cultural deposit and no further work is recommended. The large burned rock accumulation of 41 KE 57 also does not need additional work since the site has been extensively damaged and the cultural material collected from this site probably does not present an accurate picture of past activities at the site.

Although we do not recommend further work on any of these three sites, we do request that an archaeologist be present at site 41 KE 57 if it is to be altered during the construction of the proposed floodwater retarding structure. A more detailed study of its profile and contents might be made at that time and would aid in better understanding this site.

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