AN ARCHAEOLOGICAL ASSESSMENT OF 41 BX 197 AND VICINITY, WALKER RANCH NATIONAL REGISTER HISTORIC DISTRICT, SAN ANTONIO, TEXAS

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Center for Archaeological Research
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INTRODUCTION

From August 14 to September 27, 1979, archaeological survey and limited testing activities were conducted along a proposed sanitation sewer line easement on Walker Ranch in northeastern Bexar County. The sewer line, which is partially within the Walker Ranch National Register Historic District, was surveyed under contract with Harry Jewett Associates of San Antonio by the Center for Archaeological Research (CAR), The University of Texas at San Antonio (UTSA).

A total of 10 days was spent in the study area by the crew chief (Daniel R. Potter) and crew members (Elaine Brown and Paul Lukowski). Survey activities involved walking over the marked right-of-way and recording any cultural material that was visible. In addition, 21 small shovel tests and two 1-m^2 units were excavated along the right-of-way as a means of further evaluating archaeological remains in the area.

ENVIRONMENTAL BACKGROUND

Climate

A complex interaction of climatic, geological and biological elements in Bexar County has made the area one of considerable environmental variation. Its climate has been described as "modified subtropical" (Taylor, Hailey and Richmond 1966:118), with hot summers and mild winters. Rainfall is relatively even through the seasons, with winters being slightly drier. Although subject to the same general climate, differences in physiography greatly affect local climate in different areas of the county. For example, the average frost-free period (above 32°F) is a full 30 days longer in the southern part of the county than it is on the northern margin (*ibid.*:119).

Geology, Topography and Soils

Taylor, Hailey and Richmond (1966:119) have defined three physiographic zones within Bexar County. These include the Edwards Plateau in the northern third of the county, the Blacklands or Balcones Fault zone in the central section, and the Rio Grande Plain in southern areas of the county. Topographic relief is relatively high in the north (800 ft.) and decreases to approximately 250 ft. in the southern section. The geology of the county also changes considerably on a north-to-south gradient. The rugged to hilly northern and blackland zones are underlain by sedimentary bedrock of several cretaceous formations, including Grayson shale, Buda limestone, Eagleford shale, and Austin chalk (Hudson, Lynn and Scurlock 1974:4). The Rio Grande Plain to the south is much more level than the northerly zones and is composed of bedded clays, sands, and poorly consolidated sandstone.

The immediate study area is located within the transitional "Blacklands" zone. Here, small streams, such as Panther Springs and Salado Creeks, are deeply incised into the underlying rock. Floodplains are narrow, bordered by low, wooded hills exhibiting thick scrub vegetation and numerous limestone outcrops. Soil accumulations are quite thin (ca. 25-30 cm) in areas of higher elevation. Deposition on the small creek floodplain was much deeper in most cases (over 85 cm).

Flora and Fauna

The floral and faunal distribution in the area is also subject to change. The county is located in a transitional zone between Blair's (1950:102,112) Balconian and Tamaulipan Biotic Provinces and contains a mixture of plant and animal types from both provinces. For a detailed discussion and listing of animal and plant types in this zone, see Blair (1950) and Gerstle, Kelly and Assad (1978:26-29). As a general pattern, vegetation is dominated by thorny brush species on the plains (Tamaulipan), being gradually replaced by scrub forest in the northern, hilly areas (Balconian). Studies on animal distribution within the county are not known of by the author, but it is suspected that the above-mentioned factors of climate, vertical relief, soils and vegetation have a direct effect upon animal density and distribution.

Discussion

As described here, the natural environment of Bexar County is seen as a combination of three distinct types of environment, oriented primarily on a north-south gradient. This kind of environmental variability is potentially archaeologically significant for two reasons. First, in such a setting diverse natural resource zones would be available within a relatively small area. Second, "edge species," including many game animals, may maintain higher densities in these zones (Odum 1971:157-159). Both of these qualities would be beneficial to prehistoric hunter-gatherer groups.

PREVIOUS ARCHAEOLOGICAL AND HISTORICAL RESEARCH

The study area and Bexar County as a whole have received relatively extensive archaeological attention in recent years. In 1973, the Texas Historical Commission conducted limited archaeological survey and testing at Walker Ranch, discovering both prehistoric and historic remains. Site 41 BX 197, a major focus of this project, and a number of other sites on the ranch were recorded at this time (Hudson, Lynn and Scurlock 1974). Kelly also surveyed parts of the ranch in 1974. The results of his work are published in Hester *et al.* (1974). In 1977, Dr. Thomas R. Hester supervised test excavations at 41 BX 228 as part of a University of Texas at San Antonio archaeological field school. This is a major prehistoric site in the immediate area of the current survey project at Walker Ranch. In 1979 and 1980, Anne Fox of the CAR directed field investigations at site 41 BX 180, a historic occupation dating to the mid-19th century (Fox 1979) also on Walker Ranch. During this same period, Stephen Black (CAR) directed excavations at 41 BX 228 on a much more intensive scale than previous work conducted at this important site. At present, this author has just completed further survey investigations at Walker Ranch in the immediate area of 41 BX 197, 180, and 228. The investigations listed above have delineated an occupational pattern of a considerable time span.

Fawcett (1972) has published an overview of Bexar County archaeology in which he examines the county's prehistoric sites from an environmental perspective. Additional information relating to the archaeology of northern Bexar County is available in Gerstle, Kelly, and Assad (1978:31-44).

METHODOLOGY

Two factors were considered when adopting a strategy for field research at Walker Ranch. First, a specific linear area was targeted for development and was marked in the field prior to survey activities. This allowed a maximum amount of concentration on the impact area. A second factor responded to was the problem of ground surface visibility. In many areas along the survey route, subsurface testing was required where dense surface vegetation precluded reliable surface evaluation.

Within this perspective, a walk-over of the impact area was first accomplished, examining any surficial archaeological materials. At the same time, localities requiring subsurface tests were noted. Because of poor surface visibility in much of the study area, the walk-over concentrated on cleared areas such as modern ranch roads, ant beds, etc.

With the completion of surface reconnaisaance, 21 shovel tests were excavated within the proposed impact area. Three types of shovel tests were utilized: 50-cm^2 tests excavated in 15-cm arbitrary levels, circular 30-cm tests dug in 15-cm levels, and uncontrolled 30-cm tests. In controlled tests, all fill was screened through 1/4-inch mesh and all cultural debris was bagged. In uncontrolled tests, only partial screening was done, and only selected debris was recovered. All test units were plotted on a blueline topographic map supplied by Tom Lewis of Folsom Investments, Inc. In addition to shovel tests, two contiguous 1-m^2 units were excavated at the northern end of 41 BX 197, utilizing both arbitrary and natural level terminations.

All archaeological materials recovered were processed and classified in the laboratory. Data resulting from analysis are presented in Table 1.

SURVEY RESULTS: DISTRIBUTION OF ARCHAEOLOGICAL MATERIALS WITHIN THE STUDY AREA, AND DEFINITION OF SITE 41 BX 197

Shovel testing revealed that archaeological material exists along the sewer line right-of-way from close to its southern termination near Salado Creek to a point just north of the old Walker Ranch house and outbuilding complex. Inspection of Table 1 shows that most of these cultural remains are distributed thinly along the right-of-way, with the exception of the area surrounding the Walker Ranch house complex. Here, there exists a dense cultural deposit, including chipping debris and bifacial tools as well as some historic material from the Walker Ranch occupation. North of the Walker Ranch house complex, cultural material density decreases rapidly along the sewer line right-of-way as it leaves the Panther Creek terrace/floodplain and enters the wooded uplands.

Definition of 41 BX 197

41 BX 197, as originally defined (Hudson, Lynn and Scurlock 1974:16), is located in the cultivated field immediately south of the Walker Ranch house upon the second alluvial terrace of Panther Springs Creek. Survey and testing in this

This page has been redacted because it contains restricted information.

TABLE 1. ARTIFACT PROVENIENCE

Shovel Test No.	Level	Chunks Ct.	Chunks Wt.	Chips: Decorticate Ct.	Chips: Decorticate Wt.	Chips: Corticate Ct.	Chips: Corticate Wt.	Tertiary Flakes Ct.	Tertiary Flakes Wt.	Secondary Flakes Ct.	Secondary Flakes Wt.	Primary Flakes Ct.	Primary Flakes Wt.	Total Ct.	Total Wt.	Snails: Radiotus	Snails: Polygyra	Snails: Paxicolella	Snails: Helicina
1	1 (0-15)	2	6	14	9	3	4.5	5	2	0	0	0	0	24	21.5	0	0	0	0
1	2 (15-30)	0	0	8	3	6	8.5	4	3	0	0	0	0	18	14.5	0	0	0	0
1	3 (30-45)	0	0	8	3	0	0	3	20	0	0	0	0	11	23	0	0	0	0
1	4 (45-60)	0	0	5	7	1	6	2	1	0	0	0	0	8	14	2	0	0	0
1	5 (60-75)	0	0	6	5	0	0	3	3	1	1	0	0	10	9	0	0	0	3
1	6 (75-85)	0	0	7	1.5	1	1	3	1	0	0	0	0	11	3.5	0	0	0	0
2	1 (0-15)	0	0	15	6	4	3	11	7	4	22	0	0	34	38	0	0	1	1
2	2 (15-30)	0	0	1	< .5	0	0	2	9	0	0	0	0	3	9.5	0	2	0	0
2	3 (30-45)	0	0	1	.5	2	2	6	2	1	1.5	0	0	10	6	0	0	8	2
3	1 (0-15)	0	0	7	9.5	1	8.5	4	5.5	0	0	0	0	12	23.5	0	0	8	2
3	2 (15-30)	0	0	9	5	1	.5	4	8	0	0	0	0	14	13.5	0	0	1	6
3	3 (30-45)	0	0	8	4	3	5	2	.5	0	0	0	0	13	9.5	4	11	7	65
3	4 (45-60)	0	0	4	1	0	0	9	10	0	0	0	0	13	11	1	0	1	4
3	5 (60-75)	0	0	3	.5	0	0	5	2	2	1.5	0	0	10	4	0	0	0	7
4	1 (0-15)	0	0	3	3	0	0	5	5	2	2.5	0	0	10	10.5	1	0	0	1
4	2 (15-30)	0	0	7	6	4	7.5	6	4	2	3.5	0	0	19	21	0	0	0	1
5	1 (0-15)	1	10	2	5.5	0	0	0	0	0	0	0	0	3	15.5	3	0	3	5
5	2 (15-30)	0	0	2	5	0	0	0	0	0	0	0	0	2	5	0	0	0	1
5	3 (30-45)	0	0	1	.5	0	0	2	.5	0	0	0	0	3	1	0	0	0	0
5	4 (45-60)	0	0	1	.5	0	0	1	.5	0	0	0	0	2	1	0	0	0	0
6	1 (0-45)	1	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0
7	1 (0-30)	1	4	0	0	1	.5	2	7.5	0	0	0	0	4	12	0	0	0	0
7	2 (30-55)	1	21	2	1	2	2.5	1	25	1	12	0	0	7	40.5	0	1	1	4
8	1 (0-15)	0	0	6	6	4	5.5	1	16	0	0	0	0	11	27.5	0	0	0	0
8	2 (15-30)	0	0	9	7	5	3.5	6	5	0	0	0	0	20	15.5	0	0	0	0
9	1 (0-20)	5	42	31	15	6	17	15	20.5	3	2.5	1	.5	61	97.5	0	0	0	0
10	1 (0-15)	1	10	30	12	0	0	16	13.5	1	.5	0	0	48	36	0	0	0	0
10	2 (15-35)	0	0	12	4	1	2	12	3.5	1	.5	1	.5	27	10.5	0	0	0	0
11	1 (0-5)	0	0	3	1	1	17.5	1	.5	0	0	0	0	5	19	0	0	0	0
12	1 (0-5)	0	0	5	4	2	1	0	0	0	0	0	0	7	5	0	0	0	0
13	1 (0-15)	2	1.5	59	22.5	8	7	22	40	1	8.5	0	0	92	79.5	0	0	0	0
13	2 (15-25)	0	0	13	3	0	0	8	8.5	0	0	1	.5	22	12	0	0	0	0
14†	1 (0-21)	1	1	11	5	0	0	4	2	0	0	0	0	16	8	0	0	0	0
15	1 (0-15)	1	8	69	24	6	7.5	19	10	0	0	1	.5	96	50	0	0	0	0
15	2 (15-30)	0	0	35	15	10	18.5	17	7	0	0	0	0	62	40.5	0	0	0	0
15	3 (30-45)	1	1	95	25.5	7	23	49	18	2	3	1	1	155	71.5	0	0	0	0
16	1 (0-15)	0	0	17	10	4	8	10	10.5	1	16	0	0	32	44.5	0	0	0	0
16	2 (15-30)	0	0	14	15.5	1	.5	9	4.5	4	4	1	1	29	25.5	0	0	0	0
16	3 (30-45)	0	0	12	6	0	0	4	2.5	0	0	1	.5	17	9	0	0	0	0
16	4 (45-60)	0	0	2	.5	0	0	2	.5	1	3.5	0	0	5	5.5	0	0	0	0
17	1 (0-5)	8	4.5	30	27	0	0	10	12	0	0	1	.5	49	44	0	0	0	0
18	* (0-40)	0	0	1	1	0	0	3	9.5	0	0	0	0			0	0	0	0
19	* (0-30)	0	0	4	9	0	0	4	4	0	0	1	1.5			0	0	0	0
20	* (0-30)	2	11	8	7	2	8	3	7	0	0	0	0			0	0	0	0
21	* (0-25)	0	0	18	9.5	0	0	13	6	2	1	0	0	33	16.5	0	0	0	0

Since only a few bifaces and other artifacts were recovered, these are not tabulated in Table 1. Their provenience is as follows:

Bifaces:

Shovel Test 1, Level 5: Lateral (1); unclassified fragment (1)
Shovel Test 5, Level 1: Unclassified fragment (1)
Shovel Test 10, Level 1: Complete (1); proximal (1)
Shovel Test 11, Level 1: Medial (1)
Shovel Test 13, Level 1: Proximal (1); unclassified fragment (1)
Shovel Test 14, Level 1: Unclassified fragment (1)
Shovel Test 15, Level 1: Lateral (1)

Cores:

Shovel Test 1, Level 6: 1 specimen
Shovel Test 4, Level 1: 1 specimen
Shovel Test 16, Level 1: 1 specimen
Shovel Test 19, Level *: 1 specimen

† Large amount of historic material in this test indicative of 1900-1930s period.

* Uncontrolled excavation.

area by UTSA indicate that the site is larger than previously recorded, extending from slightly north of the ranch house to a point substantially south of the cultivated field already mentioned. Exact definition of the site boundaries is difficult when based upon the limited field work of this project. Adding to the problem of boundary definition is the non-uniform distribution of cultural debris within the site. The site is composed of several clusters of debris and artifacts, the largest being in and around the historic ranch complex. A second artifact cluster exists within the cultivated field, badly disturbed by farming activities and erosion. Additional small artifact concentrations exist south of this field (see Fig. 1). These aggregations are located within a larger area with much less concentration but with continuous cultural material. It is proposed that this larger cultural unit be defined as 41 BX 197, and that the present site boundaries be expanded both north and south.

Unfortunately, no time-diagnostic artifacts were recovered during UTSA activities at the site. The site has previously been recorded as including Middle and Late Archaic components (Hudson 1974, field notes). However, a *Plainview* point of Paleo-Indian times (ca. 8200 B.C.) has been surface-collected from the site (M. Kohnitz, personal communication).

Most artifacts retrieved from surface or excavated contexts were fragments of bifaces, unsuitable for purposes of dating. This is especially true of the northern margin of the site in and around the Walker Ranch complex. Here, excavation units 1 and 2 revealed numerous biface fragments, a hammerstone, and several complete bifaces. While many of these bifaces may have been broken by plowing, animal traffic, or other modern disturbances, others are probably the result of manufacturing failures. The relatively large number of both tools and flakes in this area of the site indicates that biface production was an important aspect of site function.

CONCLUSIONS

Archaeological investigation along the proposed sewer line has had the following results: (1) site boundaries for 41 BX 197 have been expanded to include archaeological remains not previously associated with this site; (2) certain concentrations of cultural debris have been recognized within the site; and (3) the proposed sewer line right-of-way has been modified in order to avoid these significant debris concentrations within 41 BX 197.

It is believed that the proposed sewer line easement as presently modified should not have significant impact upon archaeological resources within the area. It is additionally recommended that actual excavation of the sewer line be monitored by trained archaeological personnel in order to insure that any additional archaeological material disturbed by this process can be recorded.

REFERENCES CITED

Blair, Frank

1950 The Biotic Provinces of Texas. *Texas Journal of Science* 2(1):93-117.

Fawcett, W. B., Jr.

1972 The Prehistory of Bexar County: A Study of Previous Work in South Central Texas. *Lower Plains Archeological Society Bulletin* 2.

Gerstle, A., T. C. Kelly and C. Assad

1978 The Fort Sam Houston Project: An Archaeological and Historical Assessment. *Center for Archaeological Research, The University of Texas at San Antonio, Archaeological Survey Report* 40.

Hester, T. R., F. A. Bass, Jr., A. Fox, T. C. Kelly, M. F. Chadderdon, E. S. Harris

1974 Archaeological Survey of Areas Proposed for Modification in the Salado Creek Watershed, Bexar County, Texas. *Center for Archaeological Research, The University of Texas at San Antonio, Archaeological Survey Report* 3.

Hudson, W. R., Jr., W. M. Lynn and D. Scurlock

1974 Walker Ranch, An Archaeological Reconnaissance and Excavations in Northern Bexar County, Texas. *Texas Historical Commission, Office of the State Archeologist, Report* 26.

Odum, E. P.

1971 *Fundamentals of Ecology*. Third edition. Saunders, Philadelphia.

Taylor, F. B., R. B. Hailey and B. L. Richmond

1966 Soil Survey of Bexar County, Texas. *U. S. Department of Agriculture Soil Conservation Service, Series* 1962:12.