A PHASE I ARCHAEOLOGICAL SURVEY OF A 20 ACRE TRACT
THE PROPOSED KRUM CITY PARK PROJECT
IN WEST-CENTRAL DENTON COUNTY, TEXAS

Texas Antiquities Permit 2078

by

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Brazos Valley Research Associates
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A PHASE I ARCHAEOLOGICAL SURVEY OF A 20 ACRE TRACT
THE PROPOSED KRUM CITY PARK PROJECT
IN WEST-CENTRAL DENTON COUNTY, TEXAS

BVRA Project 98-07

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ABSTRACT

A Phase I archeological assessment of a 20 acre tract in west-central Denton County, Texas was performed on November 11 and 12, 1998 by Brazos Valley Research Associates of Bryan, Texas. This project was conducted under Antiquities Permit 2078 assigned by the Division of Archeology, Texas Historical Commission. The area examined is the site of a proposed city park to be constructed by the City of Krum, Texas. No archaeological sites were found in the project area, and it is recommended that construction be allowed to proceed as planned.
ACKNOWLEDGMENTS

The following individuals are thanked for their participation in this project. Wendy Soule, City Secretary; Floyd Watson, Mayor; and Conrad Shifflett, Utilities Director; of the City of Krum provided maps and was cooperative throughout the project. Mr. Shifflett took time from his busy schedule to operate the backhoe. Mark Denton the Division of Archeology, Texas Historical Commission, served as the reviewer for the project. Carolyn Spock, Head of Records, at the Texas Archeological Research Laboratory (TARL) and her staff were very helpful during the site records investigation. Lili Lyddon of Lyddon Illustrations in Wellborn, Texas prepared the figures for publication.
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INTRODUCTION

This report documents the results of a Phase I archaeological survey of a 20 acre tract in west-central Denton County, Texas (Figure 1). This project is funded by a grant from the Texas Parks and Wildlife Department (TPWD). The site of the proposed park is on a small terrace overlooking a tributary of North Hickory Creek to the west. Although no previously recorded sites in the project area and vicinity are on record at the Texas Archeological Research Laboratory (TARL), the area appears favorable for prehistoric and/or historic sites. Therefore a cultural resources survey was required by the Division of Archeology, Texas Historical Commission, and antiquities permit 2078 was issued to William E. Moore acting as Principal Investigator representing the firm of Brazos Valley Research Associates (BVRA) in Bryan, Texas. The project number assigned by BVRA is 98-07. It is the intention of the City of Krum to construct a city park on this site. The project area is depicted on the Sanger 7.5' topographic quadrangle dated 1960 and photorevised in 1978. Figure 2 depicts the project area on the Sanger quadrangle, while Figure 3 is a detailed map of the proposed park as prepared by the City of Krum. The current project area is bounded on the north by Gregg Road and on the south, west, and east by private property. Proposed improvements include two parking areas, baseball fields, soccer/football field, playground, jogging track, picnic areas and pavilion, and basketball court.

Denton County is located in the Plains Planning Region as defined by the Texas Historical Commission (Mercado-Allinger, Kenmotsu and Perttula 1996:12). However, no planning document for this area has been published at this time. According to a statistical overview published by the Office of the State Archeologist, Texas Historical Commission (Biesaart et al. 1985:129), Denton County is located in the North Central Texas Cultural-Geographical region, and there were 80 recorded sites in the county in 1985 when the overview was published. Today, however, there are 505 recorded sites in the county, an increase of at least 600% since 1985 (Carolyn Spock, personal communication, November 13, 1998). A background check at the Texas Archeological Research Laboratory (TARL) in Austin, Texas by the Principal Investigator revealed no sites have been recorded in the project area and vicinity. The largest cultural resource survey in the area was conducted prior to construction of Lake Ray Roberts (Skinner 1982a, 1982b; Skinner and Baird 1985). This investigation resulted in the location and recording of 90 prehistoric sites, 115 historic sites, and 27 prehistoric/historic sites. A survey of the Lewisville Lake shoreline (14,000 acres) was conducted by the University of North Texas (Lebo and Brown 1990). This project identified and recorded 49 prehistoric and 75 historic sites. The prehistoric sites date to the Paleoindian, Archaic, and Late Prehistoric periods. The survey was followed by testing of 23 prehistoric and 16 historic sites (Brown and Lebo 1991).
Figure 1. General Location Map.
Figure 2. Project Area on Topographic Map.
Figure 3. Project Area Map.
In 1990, Daniel J. Prikryl published *Lower Elm Fork Prehistory: A Redefinition of Cultural Concepts and Chronologies along the Trinity River, North-Central Texas*. This volume, published by the Office of the State Archeologist, Texas Historical Commission presents an in-depth overview of the archaeology of Collin, Dallas, Denton, and Tarrant counties and, in addition to the contract reports cited above, is a major source for the Denton County area prehistory and history. These documents should be consulted by researchers interested in detailed studies involving Denton County, Texas.

According to the Soil Survey of Denton County, two soil types are found in the project area (Ford and Pauls 1980:Sheet 14 and Sheet 20). These are the Sanger clay, 1 to 3 percent slopes and Sanger clay, 3 to 5 percent slopes (Ford and Pauls 1980:36). The project area, as depicted on the soils map, appears as Figure 4 in this report.

Sanger clay 1 to 3 percent slopes (67) is a deep, gently sloping soil in valley fill areas between limestone ridges. Soil areas are subrounded and range from about 10 to 200 acres. This soil is well drained, and runoff is medium. Permeability is very slow, and available water capacity is high. Untilled areas have microknolls 6 to 20 feet wide and microdepressions 4 to 12 feet wide that extend up and down the slope. Typically at the center of a microdepression the surface layer of this soil is moderately alkaline, dark grayish-brown clay about 38 inches thick. From 38 to 55 inches is moderately alkaline, light yellowish-brown silty clay with brownish-yellow mottles. From 55 to 80 inches is moderately alkaline, light yellowish-brown silty clay with light gray mottles in the upper part, and very pale brown mottles in the lower part.

Sanger clay 3 to 5 percent slopes (68) is a deep, gently sloping soil in valley fill areas and on sides of ridges. Soil areas are longer than they are wide and range from about 10 to 130 acres. This soil is well drained, and runoff is medium. Permeability is very slow, and available water capacity is high. Untilled areas have microknolls that are 3 to 8 inches higher than microdepressions. Typically at the center of a microdepression the surface layer of this soil is moderately alkaline, dark grayish-brown clay about 17 inches thick. From 17 to 27 inches is moderately alkaline, light yellowish-brown silty clay with brownish-yellow mottles. From 27 to 60 inches is moderately alkaline, light yellowish-brown silty clay.
FIELD METHODS

Prior to entering the field, the site records at the Texas Archeological Research Laboratory (TARL) on the campus of The University of Texas at Austin were checked for the presence of previously recorded sites in the project area and vicinity. No sites were found in the project area, and no sites were recorded on the entire Sanger topographic quadrangle. Also, a review of contract reports for Denton County present in the BVRA library was conducted in order to become familiar with the kinds of sites known to occur in the area. A major reservoir study (Lake Ray Roberts) had been conducted to the west of the current project area, and this report was read before entering the field. The field survey was conducted on November 11 and 12, 1998 with William E. Moore acting as Principal Investigator. On the 11th, the Principal Investigator walked over the entire project area and examined the surface for cultural materials. In addition to the surface inspection, five shovel tests were excavated (Figure 3; Table 1). The shovel tests, which sampled the two ridge tops and a lower area in the middle of the project area, were dug to clay, and the excavated fill was screened using one-quarter inch mesh. No attempt was made to dig through the underlying heavy clay. On the 12th, the project area was examined using a backhoe operated by Conrad Shifflett, Utilities Director of the City of Krum. In all, 13 backhoe trenches (BT) were excavated (Figure 3; Appendix I). Each test measured 26 inches in width (size of the bucket on the backhoe), one meter in length (3 feet), and varied in depth from 80 to 100 cm. Each trench was dug through heavy clay with some terminating at limestone bedrock. The 13 trenches thoroughly covered the project area, examining all of the high ground as well as the slopes and lower areas. Although heavy clay was encountered within 15 cm (in most cases) of the ground surface, they were continued through the clay in an attempt to locate buried sites if present. The project was documented through a field journal and color photography (35 mm prints).

Table 1. Shovel Test Data

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<th>Depth</th>
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<td>15 cm</td>
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RESULTS AND CONCLUSIONS

The archival search at the Texas Archeological Research Laboratory revealed no previously recorded archaeological sites in the project area and vicinity. In fact, no sites are recorded on the entire Sanger quadrangle. The entire 20 acre tract was carefully examined by a surface inspection, shovel testing, and backhoe trenching. It was immediately determined that the 20 acre tract had been severely disturbed plowing and probably erosion resulting from past cultivation practices. According to Conrad Shifflett (personal communication) much of this area had been used for agricultural purposes in the past, and old furrows were still visible on the ground surface over much of the project area. During Phase II testing of prehistoric sites at Lake Ray Roberts to the east, Skinner (1985) noted the impact on sites created by erosion of previously cultivated areas in settings similar to the current project area.

It is also important to note the presence of fragments of limestone rocks at the surface in several parts of the project area and an rock outcrop less than 100 meters to the west of the northern end of the project area (Figure 4). According to research conducted by Skinner (1985:2-1), bedrock in the Lake Ray Roberts area includes units of the Gulf and Comanche series of the Cretaceous system. The area west of the lake contains formations of the Washita group limestone, and it seems likely that the limestone found in the current project area belongs to this formation.

No cultural materials were found on the ground surface during the surface examination by the Principal Investigator, and no evidence of an archaeological site was found in the shovel tests or backhoe trenches. If any cultural materials are present in the project area it is believed that they would be in a disturbed context due to past agricultural practices. No evidence of deep soils was found, and no sandy soils were present. The prehistoric sites tested by Skinner (1985) at Lake Ray Roberts were all in soils described as fine sandy loam. Cultural materials at the tested sites did not extend into the heavy clay. Sites tested by Skinner contained a relatively high number of lithic artifacts in addition to mussel shell and burned rock features and some locations. If a site is present in the project area it would be a very low density site in terms of numbers of artifacts. It is, therefore, concluded that the entire 20 acre project area contains no significant prehistoric or historic sites, and the tract is viewed as low probability for site occurrence.
RECOMMENDATIONS

No evidence of a prehistoric or historic site was found in the 20 acre project area. It is believed that the 5 shovel tests and 13 backhoe trenches adequately assessed the tract. Therefore, it is recommended that the City of Krum be allowed to proceed with construction as planned. Should, however, evidence of any site, prehistoric or historic, be encountered during construction all work must cease until the situation can be resolved by the Division of Archeology, Texas Historical Commission in consultation with the City of Krum and Brazos Valley Research Associates.
REFERENCES CITED

Biesaart, Lynne A., Wayne R. Roberson, and Lisa Clinton Spotts  
Office of the State Archeologist, Special Report 28, Texas Historical Commission.

Brown, Kenneth Lynn, and Susan A. Lebow  

Ford, Alan, and Ed Pauls  
1980 Soil Survey of Denton County, Texas. United States Department of Agriculture, Soil Conservation Service and Forest Service in cooperation with the Texas Agricultural Experiment Station.


Prikryl, Daniel J.  

Skinner, S. Alan (Assembler)  

Skinner, S. Alan (Assembler)  

Skinner, S. Alan, and LeAnne Baird (Assemblers)  
### Appendix I: Backhoe Trench Log

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