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For Review

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AN ARCHAEOLOGICAL SURVEY

NEAR

ROANOKE, TEXAS

Jesse Todd, MS, MA
and
S. Alan Skinner, PhD

Prepared for:

KEITH BRADLEY & ASSOCIATES, LLC
410 North Main
Euless, Texas 76039

Prepared by:

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Cultural Resources Report 2002-10
March 24, 2002

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ABSTRACT

AR Consultants, Inc. (ARC) conducted a cultural resources survey for a proposed development site northeast of Roanoke, Denton County, Texas at the junction of Hwy 377 and Marshall Creek Road. A records research did not reveal any historic or prehistoric cultural resources in the study area. A comprehensive survey of the 13.5 acre tract located no archaeological resources. Shovel-testing failed to reveal any buried cultural resources. The conclusion is that this area in the upland prairies in North Texas has low potential for containing significant prehistoric and historic cultural resources.

Based on the field investigation, it is ARC's recommendation that no further cultural resource investigations are warranted on this property. The Texas Historical Commission should be advised if buried cultural resources are uncovered during construction, and, if found, construction should cease immediately in that area until proper investigations can be carried out.

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r-arc Roanoke

INTRODUCTION

On March 22, 2002, AR Consultants, Inc. (ARC) conducted a pedestrian archaeological survey of a 13.5 acre tract of land northeast of Roanoke, Denton County, Texas, at the junction of Hwy 377 and Marshall Creek Road (Figure 1). The cultural resources survey was done for Keith Bradley & Associates, LLC of Euless, Texas. The survey area is bounded by Marshall Creek Road to the north, Howe Road on the east. The southern boundary is a fence line that has grown up with honey locusts and hackberrys. The northwestern boundary is Hwy 377.

The purpose of this investigation was to locate any cultural resources present within the tract and make recommendations about their significance and how they might be impacted by construction. The study is appropriate for federal permitting as part of an application for an NPDES Permit from the US Environmental Protection Agency and a 404 Permit from the Corps of Engineers. This report has been prepared with the anticipation that it will be reviewed by the Archeology Division of the Texas Historical Commission as part of their Section 106 review process. The relevant federal legislation includes the National Historic Preservation Act of 1966, as amended (PL-96-515), the National Environmental Policy Act of 1969 (PL-90-190), and the Archeological and Historical Preservation Act of 1974, as amended (PL-93-291). The Antiquities Code of Texas does not apply since this is private property and development is being done by a private business.

This report was written in accordance with the guidelines for short reports adopted by the Texas Historical Commission, Archeology Division, and developed by the Council of Texas Archeologists (ND). The following report contains a brief description of the natural environment and then a summary of previous archaeological investigations in the area as known from published sources. This is followed by the research design and the methodology. The description of the results of the field investigation constitutes the major part of the report. The last chapter presents recommendations that arise from the study. A list of references cited concludes the report.

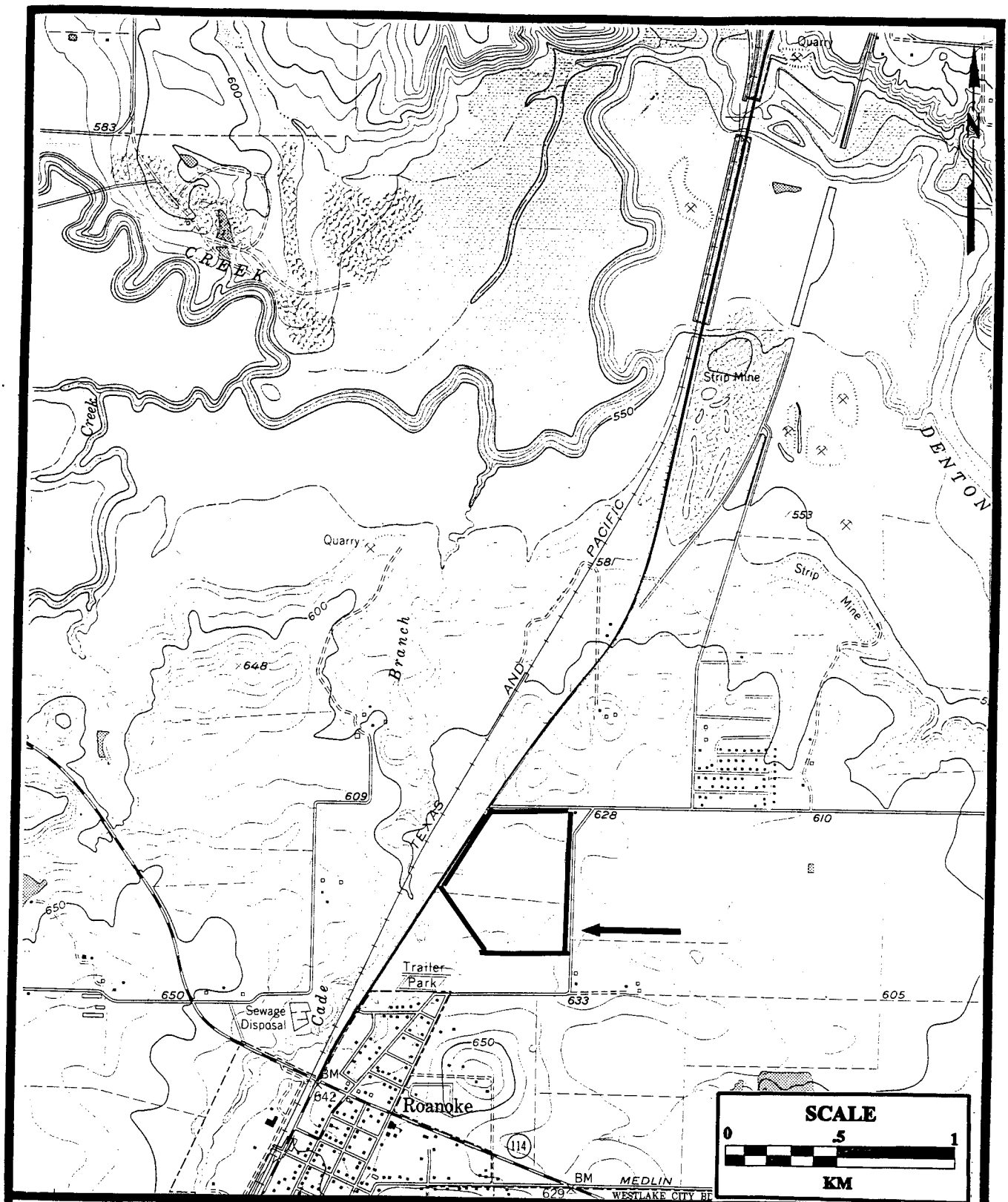

Figure 1. Location of the survey area shown on a section of the Argyle, TX 7.5' USGS map. Arrow points to the outlined survey area.

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Administrative Information:

Sponsor:	Keith Bradley & Associates, LLC
Review Agency:	Texas Historical Commission, Archeology Division
Principal Investigator:	S. Alan Skinner, PhD
Field Crew:	Jesse Todd and Skinner
Fieldwork Date:	March 22, 2002
Project Man-days:	Two
Acres Surveyed:	13.5
Sites Investigated:	
Prehistoric:	None
Historic:	None

NATURAL ENVIRONMENT

The study area is located in the Fort Worth Prairie which, in the past, was characterized by perennial grasses and flowers that were able to rebound after long periods of drought. Woody plants were largely confined to valleys and their margins. Animals that ranged the prairie, in the past, consisted of bison and antelope. Deer were probably found along the stream valleys. The major change to this environment was done by Europeans who have farmed the land and used it for pasture (Dyksterhuis 1946:11 and 6). The climate for Denton County is humid and subtropical. The summers are hot. Annual precipitation averages 31.99 inches (Ford and Pauls 1980:1). The study area is in the Cretaceous-age, Grayson Marl, according to the Bureau of Economic Geology map (1967). Marls are mixtures of clay and calcium carbonate.

Dysksterhuis (1946:7) states that the soils of the Fort Worth Prairie are of particular interest because they have immature profiles resting upon soft limestone parent materials. The typical soil series for the prairie include Denton, San Saba and Bracket. As seen in Figure 2, the soil of the study area was classified as San Saba (USDA 1918) which was typical of the Fort Worth Prairie.

Soil classification has become more complex since 1918. Ford and Pauls (1980) list the soils in the study area as Ponder-Lindale which are well drained, loamy soils that have slow to very slow permeability. The slope is from level to gentle. In the study area, there are three kinds of soils, as shown in Figure 3. The soils are Branyon clay (19) with 1 to 3 percent slope, which has no B or C horizon but the AC horizon starts at 56 inches below the surface, Sanger clay (67) with 1 to 3 percent slope, which has no B horizon but the AC1 horizon starts at 38 inches beneath the surface, and Somervell gravelly loam (75) with 1 to 5 percent slope, which has a B2 horizon at 15 inches below the surface (Ford and Pauls 1980). The soils map indicates a wetland in the northwest corner of the survey area, but this was not found in the survey. More recent bulldozing, during the construction of Marshall Field Road, may have filled in the wetland.

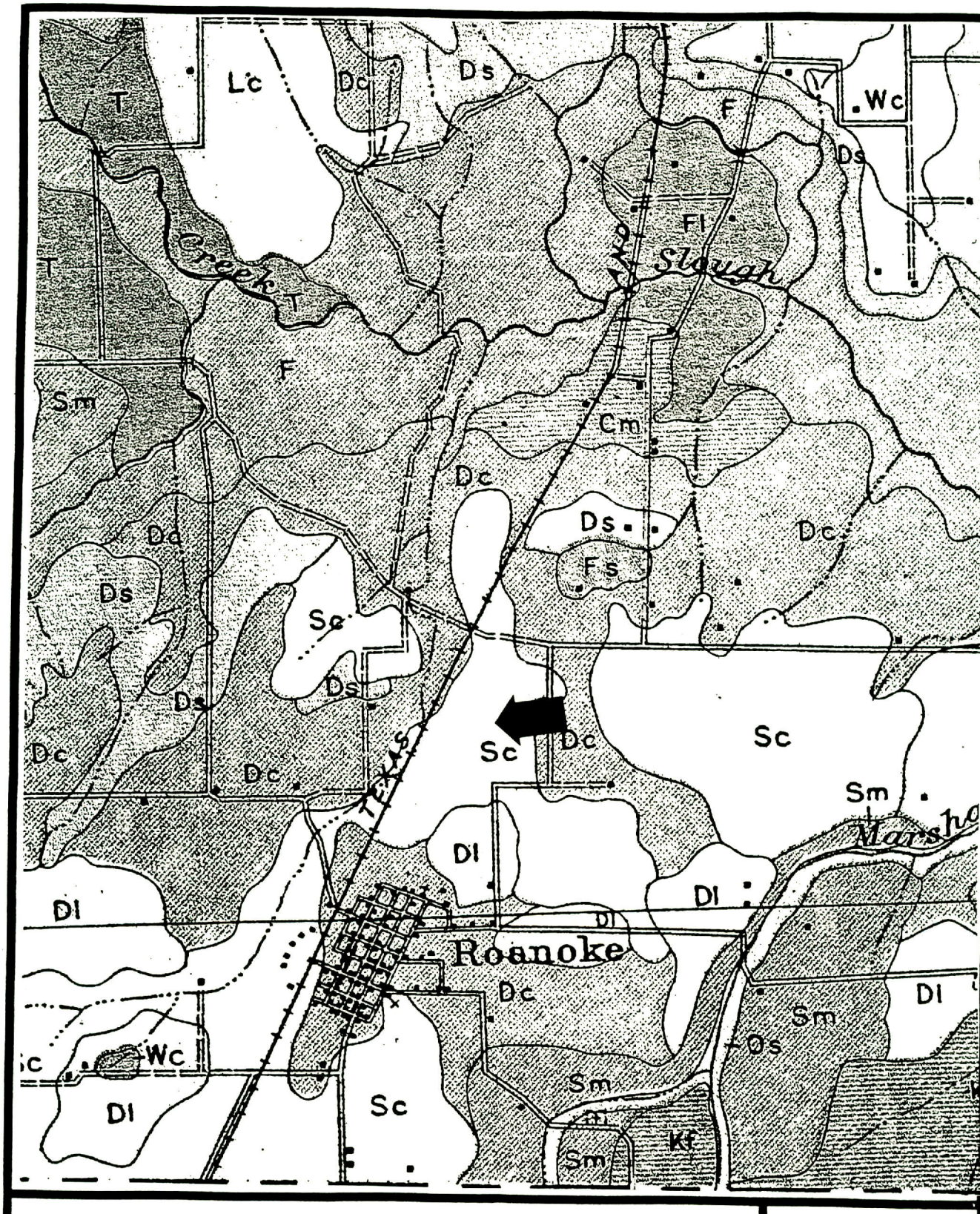

Figure 2. Soils in the study area from 1918 Denton Soil Map (U.S. Department of Agriculture). Enlarged 200%. Arrow points to the survey area.

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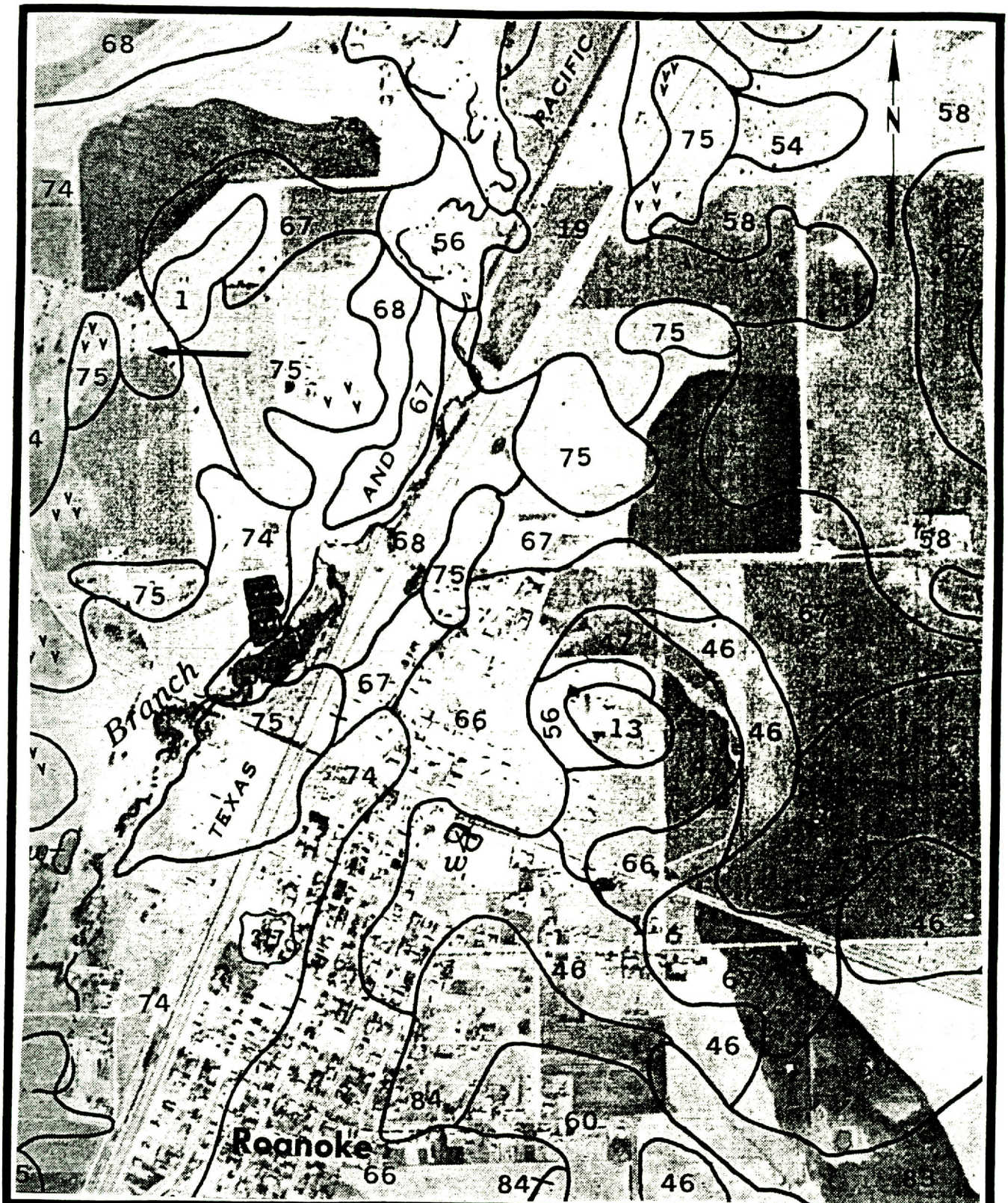

Figure 3. Soils in the study area from Soil Survey of Denton County (Ford and Pauls 1980:Sheet 40). Enlarged 150%. Arrow points to the survey area.

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CULTURE HISTORY

Over the past several decades, cultural resources investigations in north-central Texas have varied due to the locations and types of projects carried out. Therefore, the data base of information to which new projects can be compared is limited. This is particularly true for southwest Denton County which is located primarily in the upland prairie. The following culture history is derived from the monograph "Lower Elm Fork Prehistory" by Daniel J. Prikryl (1990). Prikryl's framework includes the six prehistoric periods, to which the historic Native American and European periods have been added.

Using Prikryl's time framework, the following paragraphs present a brief description of the culture history of the region.

Historic European	A.D. 1800 to Present
Historic Native American	A.D. 1600 to A.D. 1850
Late Prehistoric II	A.D. 1300 to A.D. 1600
Late Prehistoric I	A.D. 700 to A.D. 1300
Late Archaic	2,000 B.C. to A.D. 700
Middle Archaic	4,000 B.C. to 2,000 B.C.
Early Archaic	6,000 B.C. to 4,000 B.C.
Paleoindian	ca. 11,000 B.C. to 6,000B.C.

The Paleoindian period is distinguished by distinctive projectile point styles attributed to this period (Meltzer and Bever 1995:Table 1). Many of the points are made of exotic cherts that are not native to North-Central Texas. The Lewisville site and the Aubrey Clovis site in Denton County are the only excavated Paleoindian sites in the region. Surface artifacts generally come from deposits on stream terraces above the level of the active floodplain. This was a period when large mammals became extinct, and their extinction is attributed in part to a general drying of the environment.

During the Early Archaic, the general drying continued, and sites are found on stream terraces. There is a hint of population increase, and Lynott (1981:103) suggests that there was increased emphasis on the use of bottomland food resources. Prikryl (1990:71) can not confirm Lynott's suggestion, and in fact he reports fewer bottomland sites than during the previous period. Middle Archaic sites are predominantly found on the first terrace above stream floodplains. As earlier, sites tend to be along the Elm Fork rather than along the smaller tributaries. It appears that population density continued to be low.

Late Archaic sites increase in number over the previous period, and sites are located both along the rivers and along tributaries. There appears to be a strong shift in site location to the tributary streams and a pronounced population explosion. Local Ogallala quartzite is being used prominently at this time, and this observation is taken by some authors as evidence of increased territorial restrictions.

During the Late Prehistoric I period, the bow and arrow and pottery appear in artifact assemblages. Houses and probable evidence of agriculture first appear during this period, although none are known in Tarrant County. Site locations mirror those of the Late Archaic, and quartzite continues as the common material for chipped stone projectiles and tools. The West Fork Paleosol is dated to this period, and drying continued into the subsequent period.

The Late Prehistoric II is highlighted by the prominence of buffalo in archaeological sites and the appearance of tools normally expected to occur at sites on the High Plains of West Texas. It also appears that sites are once again located on sandy terraces above the floodplains.

Beginning in the 1830s and continuing into the 1840s, according to some historical documents, the aboriginal inhabitants of North-Central Texas continued to play an infamous if not important role in the history of that region. Very little archaeological evidence, however, of historic Native American occupation has been found in the North-Central Texas. This is a pattern seen throughout much of Texas, and one which has been suggested is due to the inability of the Native Americans to adapt to the changing climate (Skinner 1988).

The 1830s and 1840s were decades of Anglo expansion into North-Central Texas. Garrett (1972:24), a well-respected Fort Worth historian, has stated that "Indian hostilities almost depopulated North Texas [of Anglo settlers] after 1839. It dwindled to less than half". According to tradition, many Indians of several tribes roamed the region until well into the 1860s. Strategies for dealing with the illusive aboriginal population ranged from armed confrontation and pursuit to across-the-table dialogue. Rising from a domestic background of dealing with Indians, President of the Republic of Texas, Sam Houston, realized rapprochement was preferable to direct confrontation. In the summer of 1843, a council with the Indians was called, and in September of that year ten tribes signed a treaty which was approved by the Senate the following January. The treaty provided the needed impetus for settlement of several counties in the North-Central Texas area.

Previous Investigations

This section of Denton County has not been extensively surveyed. ARC has been involved with a number of surveys of parks and greenbelts in northern Tarrant County and adjacent Denton County. AR Consultants conducted a survey on Henrietta Creek, northwest of Roanoke, but did not find any cultural resource materials (Trask 2000). A survey of Arcadia Trail Park (Skinner and Whorton 1993) southeast of Roanoke recorded a prehistoric shell lens site (41TR132) and a historic trash accumulation (41TR131). A survey of Big Fossil Creek Greenbelt (Trask and Whorton 1995) to the south did not find any prehistoric sites. A survey of a community park in far north Fort Worth (Skinner 2001) was also negative for prehistoric sites. West of the Roanoke project area, the Army National Guard (Texas Archeological Sites Atlas 2002) has recorded a number of historic

structures and features associated with the Eagle Mountain Lake Training Site. The few prehistoric sites recorded in the surrounding area show that the area was used by prehistoric people, but that use was not intensive.

RESEARCH DESIGN & METHODOLOGY

The purpose of the research design outlined below was to insure that fieldwork made a contribution to the better understanding of prehistoric and historic settlement in this part of Denton County. Furthermore, a records review indicated no evidence of historic occupation in the area. As a result, we proposed the two research problems presented below.

> It was predicted that this location in the upland prairie had little likelihood of having been occupied prehistorically due to the absence of potable water, the low biotic diversity, and the presumed absence of Uvalde gravels.

A second, and even more basic, research problem guided survey work; simply stated the question asked

> "How did past people use the land, and what record of this use did they leave behind?"

Most frequently, small-scale surveys of this type gather information in response to this more open-minded research question, which guides almost all archaeological surveys.

In order to address these questions, a systematic pedestrian survey of the entire tract was conducted. Besides the pedestrian survey (Texas Historical Commission 1998), limited shovel testing was done throughout the tract. The clayey matrices were inspected for artifacts as were the pit walls but the wet clay was not screened.

RESULTS

Prior to the survey, a review of the Texas Archeological Sites Atlas (2002), and the National Register of Historic Places or as State Archeological Landmarks (Steely 1984; THC 1975) was done. No recorded sites were found in the study area. An inspection of the 1936 General Highway Map of Denton County (TSHD and USDA) does not show any houses either. The Argyle, TX 7.5' USGS map, printed in 1960, shows no evidence of historic structures on the property nor do the photorevisions in 1968 and 1973.

From the north, the study area slopes gently south from a knoll and then rises slightly at the southeastern corner as seen in Figure 4. The tract contains two fence lines, one slightly more than half way to the southern boundary and the other is the southern boundary. A dirt road is along the southern boundary. Honey locusts have grown up along the northern fence, bois'd'arcs are on the knoll and hackberries are along the fence lines, including the eastern boundary. A grove of hackberries was found in the west central portion, along an abandoned road that once passed through the survey tract. Cedars were growing in the survey tract and there was an old willow (75 years) in the tract as well. Vegetation consisted of perennial grasses, prickly pear cactus and narrow-leaf yucca. There are no drainages in the survey area; however, standing water was encountered throughout the survey area, especially in the central portion.

Figure 4. Photograph of the study area showing the level terrain and ground cover. View is from the north.

The Survey

The surveyors conducted a thorough pedestrian survey of the entire tract. This was done walking transects that were spaced thirty meters or less apart. Surface visibility ranged from 0 to 10 percent, but eye-height visibility was excellent. Survey began in the north central part of the tract and proceeded to the east and then to the south. No evidence of terracing was found in this field and the fence line that bisects the property appears to be less than twenty years old based on the age of the hackberry trees that have grown up in the fence row. The southern pasture was also unterraced and presented a relatively level appearance. From the southeastern corner, survey continued to the western boundary adjacent to the SH 114 access road and then proceeded north to the grove of young hackberry trees that occur on either side of an abandoned but elevated dirt road.

The abandoned road with a concrete culvert was found entering the survey area from the west and is shown on Figure 5. In the 1980 soils map, there is a road that enters the survey area from the west and exits at the northeast boundary. The road is ditched and at the time of this survey the ditches contained standing water. The road was approximately one hundred feet between ditches and the elevated roadbed is approximately a foot and a half above the surrounding ground surface. Apparently the road provided access across the tract although it was not important enough to have been paved. The abandoned road is probably the road shown on the soil map. North and west of the road is a large patch of cactus. When one compares the limits of the Somervell gravelly loam shown in Figure 3, the limits of the cactus patch are almost the same as the gravelly loam. There is a berm, with associated hackberry trees, at the fence line near the middle of the survey area. The hackberries are not older than 20 years which suggests that the survey area was in pasture and the berm was created during plowing.

An extensive area of limestone gravel coincides with an area of prickly pear cactus. The soil is described as Somervell gravelly loam. Although gravels were found on the surface in the upper northwestern portion of the survey area, the gravel was limestone which is not suitable for creating stone tools. No tool manufacturing lithic debris, discarded blanks or reworked tools were found on the surface anywhere in the survey area. Drill holes, located in the eastern one-third of the survey area, were also closely inspected for cultural materials, but none were found.

A series of twenty shovel tests was excavated throughout the entire tract in order to explore for buried archaeological deposits (Figure 5). These shovel tests are described individually in Table 1. No evidence of prehistoric or historic occupation was found during shovel testing. The absence of occupation is this immediate area confirms the findings of previous investigations in level upland areas within the Fort Worth Prairie.

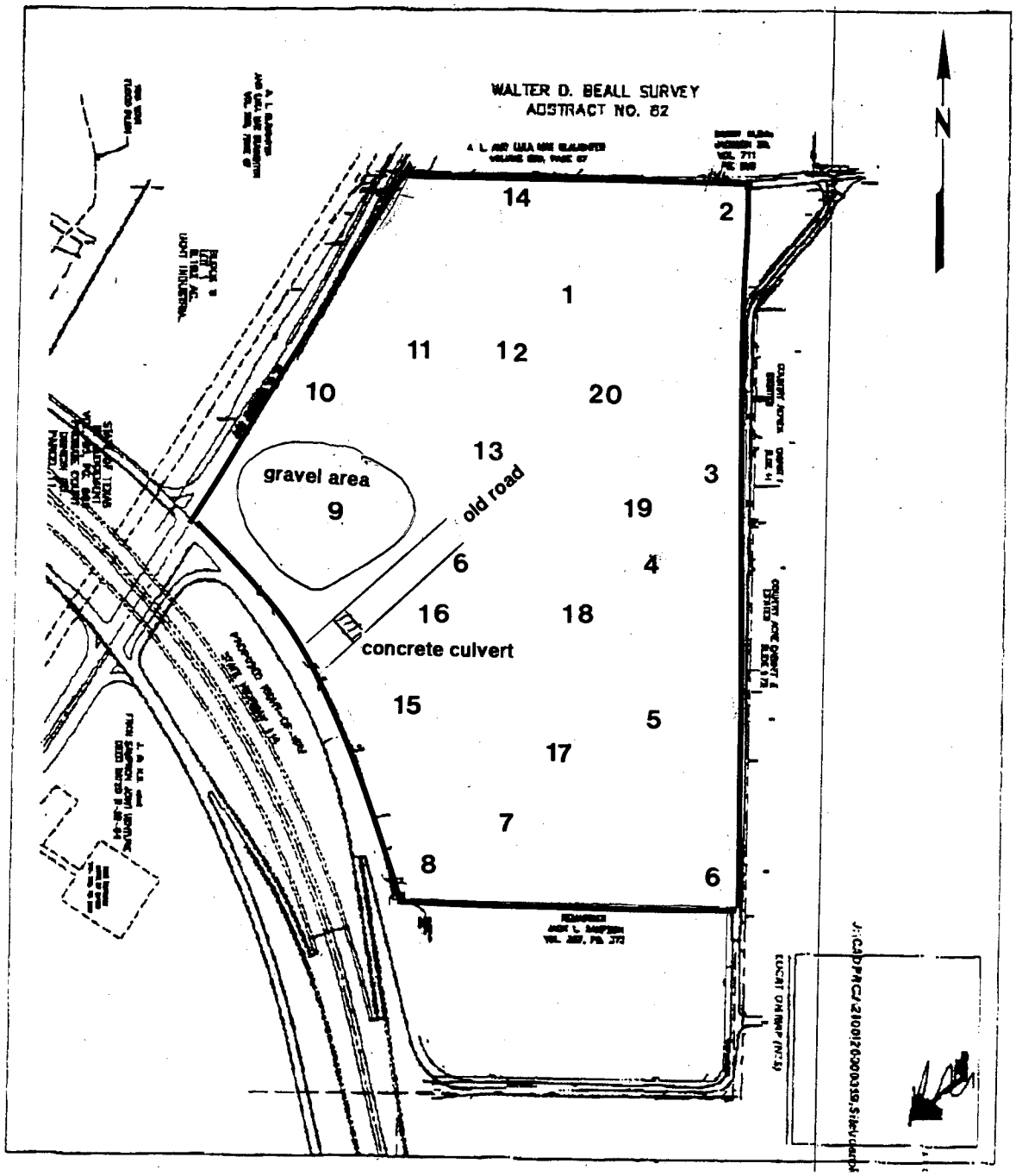

Figure 5. Location of shovel tests, gravel area and abandoned road shown on a plan map of the survey area.

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Table 1. Shovel test descriptions.

ST NO.	DEPTH	DESCRIPTION	COMMENTS
ST 1	0-22	very dark grayish brown clay loam (10YR3/2)	small gravels
	22	limestone bedrock	
ST 2	0-44	black clay loam (10YR2/1)	
	44-54	very dark grayish brown clay loam	moist
ST 3	0-34	very dark grayish brown clay loam	
	34-47+	very dark grayish brown clay loam	gravels, extremely wet
ST 4	0-34	black clay loam	
	34-52	very dark grayish brown clay loam	
	52+	limestone gravels	
ST 5	0-40	black clay loam	
	40-55+	very dark grayish brown clay loam	sticky, limestone gravel probably close
ST 6	0-12	very dark brown clay loam (10YR3/1)	
	12-37	dark yellowish brown clay loam (10YR3/4)	
	37+	limestone bedrock	
ST 7	0-10	black clay loam	
	10-55+	very dark grayish brown clay loam	sticky
ST 8	0-49	dark yellowish brown clay loam	
	49+	limestone bedrock	
ST 9	0-16	dark yellowish brown sandy clay (10YR3/6)	sometimes only 3 cm before encountering cobbles
	16+	limestone cobbles	
ST 10	0-13	mixture of dark yellowish brown sandy clay and black clay loam	very wet, water began to fill hole before recording began
	13-22	black clay loam	
	22+	limestone cobbles	
ST 11	0-12	black clay loam	very wet
	12-44+	dark yellowish brown clay loam	small limestone gravels
ST 12	0-16	black clay loam	
	16-41+	very dark brown clay loam (10YR2/2)	too wet to dig
ST 13	0-47+	black clay loam	very sticky
ST 14	0-33	dark yellowish brown clay loam	
	33+	limestone bedrock	
ST 15	0-16	very dark brown clay loam	
	16+	limestone gravel	
ST 16	0-38	very dark grayish brown clay loam	
	38-61+	dark gray loam (10YR4/1)	
ST 17	0-35	very dark grayish brown clay loam	
	35-65+	dark gray clay (10YR7/1)	small limestone pebbles
ST 18	0-30	very dark grayish brown clay loam	
	30-55+	dark gray clay	small limestone pea gravel and small below 55 cm
ST 19	0-45+	black clay loam	wet, with some limestone gravels
ST 20	0-45+	black clay loam	very sticky

Note: Munsell color numbers are presented only the first time that they occur in the table.

RECOMMENDATIONS

The purpose of this investigation was to determine if significant cultural resources are present within the survey area north of Roanoke, Denton County, Texas. No evidence of historic or prehistoric occupation was found.

AR Consultants recommends that clearance be provided to continue with development of the project site without further concern for cultural resources. We further recommend that construction supervisors be advised that buried archaeological materials could be uncovered during construction, although we deem it very unlikely. If this situation should arise, work should immediately cease in that area and the Archeology Division of the Texas Historical Commission should be advised of the discovery.

REFERENCES CITED

Bureau of Economic Geology
1967 *Geologic Atlas of Texas, Sherman Sheet.* The University of Texas at Austin.
Council of Texas Archeologists
ND Guidelines for the Content of Cultural Resource Management Reports. Distributed by the Texas Historical Commission, Archeology Division.
Dyksterhuis, E.J.
1946 The Vegetation of the Fort Worth Prairie. *Ecological Monographs* 16(1):1-29.
Ford, Alan and Ed Pauls
1980 *Soil Survey of Denton County, Texas.* USDA, Soil Conservation Service in cooperation with the Texas Agricultural Experiment Station.
Garrett, Julia Kathryn
1972 *Fort Worth: A Frontier Triumph.* The Encino Press. Austin.
Lynott, Mark J.
1981 A Model of Prehistoric Adaptations in Northern Texas. *Plains Anthropologist* 26(92):97-110.
Meltzer, David J. and Michael R. Bever
1995 Paleoindians of Texas: An Update on the Texas Clovis Fluted Point Survey. *Bulletin of the Texas Archeological Society* 66:47-81.
Prikryl, Daniel J.
1990 *Lower Elm Fork Prehistory: A Redefinition of the Cultural Concepts and Chronologies along the Trinity River, North-Central Texas.* Texas Historical Commission, Office of the State Archeologist, Report 37.
Skinner, S. Alan
1988 Where Did All the Indians Go? *The Record* 42(3):101-104.
2001 *Archaeological Survey of the Far North Fort Worth Community Park.* AR Consultants, Inc., Cultural Resources Report 2001-6.
Skinner, S. Alan and Brenda B. Whorton
1993 *Archaeological Survey of Arcadia Trail Park Tarrant County, Texas.* AR Consultants, Cultural Resources Report 93-7
Steely, James W.
1984 *A Catalog of Texas Properties in the National Register of Historic Places.* Texas Historical Commission.
Texas Archeological Sites Atlas
2002 Search for recorded sites in southwest Denton County, Texas. Texas Historical Commission Internet site.
Texas Historical Commission
1975 *Guide to Official Texas Historical Markers.* Austin.
1998 Archeological Survey Standards for Texas.
Texas State Highway Department and U.S. Department of Agriculture, Bureau of Public Roads
1936 *General Highway Map, Denton County, Texas.*
Trask, Lance K.
2000 *Archaeological Survey of the Litsey Road Widening at Henrietta Creek, Denton County, Texas.* AR Consultants, Cultural Resources Letter Report.
Trask, Lance K. and Brenda B. Whorton
1995 *Cultural Resources Survey of Big Fossil Creek Greenbelt Haltom City, Texas.* AR Consultants, Cultural Resources Report 95-19.
US Department of Agriculture
1918 *Soil Map Texas, Denton County Sheet.* US DA, Bureau of Soils and Texas Agricultural Experiment Station.