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ARCHAEOLOGICAL TESTING WITHIN THE

GRAPEVINE SPRINGS PARK,

COPPELL, TEXAS

Texas Antiquities Permit Number 4513

Jesse Todd, MS, MA
Principal Investigator

Submitted to:

CITY OF COPPELL
P.O. Box 478
Coppell, Texas 75019

Submitted by

AR CONSULTANTS, INC.
11020 Audelia Road, Suite C105
Dallas, Texas 75243-9085

Cultural Resources Report 2009-Draft
January 19, 2009

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ABSTRACT

During the middle of May and October of 2007, the City of Coppell in Dallas County conducted archaeological testing with the Grapevine Springs Park under Texas Antiquities Permit Number 4513 since the City of Coppell is a political entity of the State of Texas. No diagnostic cultural materials older than 50 years were found on the ground surface, during the metal detector survey or uncovered in four test units. The lack of prehistoric cultural materials was probably a result of terracing and construction done to create the park by the Works Progress Administration (WPA). The absence of diagnostic historical cultural materials was the fact that the park probably was not utilized until well into the 1950s and probably the 1970s.

ACKNOWLEDGMENTS

AR Consultants, Inc. wishes to thank everyone involved in the project while we accept responsibility for the content of the report.

First and foremost, we want to thank Jean Murph, Citizen's Advocate, for her interest in the history and prehistory of Coppell, and especially Grapevine Springs Park. We also would like to thank Bill Martin of the Archeology Division of the Texas Historical Commission for his interest and support of the project.

In addition, I, personally, would like to thank my wife, Antoinette, for her help along with Jim Blanton, Paul Lorrain and Gwen Durrant of the Dallas Archeological Society, Lance K. Trask of AR Consultants, Inc. and Cody Davis, graduate student at the University of Texas at Arlington and part-time employee at AR Consultants, Inc.

A very special thanks goes to Alan Skinner of AR Consultants, Inc. who provided the screens, other excavation equipment and who underwrote the report cost.

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INTRODUCTION

During May and October of 2007, residents of the City of Coppell conducted archaeological testing within the Grapevine Springs Park under the supervision of Jesse Todd of AR Consultants, Inc. (ARC) who acted as Principal Investigator. The purpose of the archaeological testing was to familiarize the residents of Coppell with Archaeology ad archaeological methods as part of Archeology Month. Grapevine Springs Park is located approximately 650 feet south of Rosemount Court and about 1,350 feet west of Denton Tap Road in Coppell, in northwestern Dallas County, Texas. The investigation included a pedestrian survey using metal detectors and the excavation of four test pits. A Principal Investigator and a Texas Antiquities Permit were required because the City of Coppell is a political entity of the State of Texas and the Archeology Division of the Texas Historical Commission issued Texas Antiquities Permit Number 4513 for the testing.

This report is written in accordance with the guidelines for reports adopted by the Archeology Division of the Texas Historical Commission, and developed by the Council of Texas Archeologists (ND). The report presents a brief description of the natural setting of the area, followed by a discussion of the culture history of the surrounding area. A chapter methodology employed is followed by the results of our investigations. Conclusions end the report and are followed by the references cited.

Administrative Information:

Sponsor:	City of Coppell, Texas
Review Agency:	Texas Historical Commission, Archeology Division
Principal Investigator:	Jesse Todd,
Field Team:	Jean Murph, Lance K. Trask, Paul Lorrain, Jim Blanton, Gwen Durrant, Bob Coberly, Lou Duggard, Don Carter, and various citizens of Coppell.
Fieldwork Dates:	May 12 and October 13, 2007
Sites Investigated:	1
Prehistoric:	
Historic:	41DL329
Curation Facility:	no artifacts curated

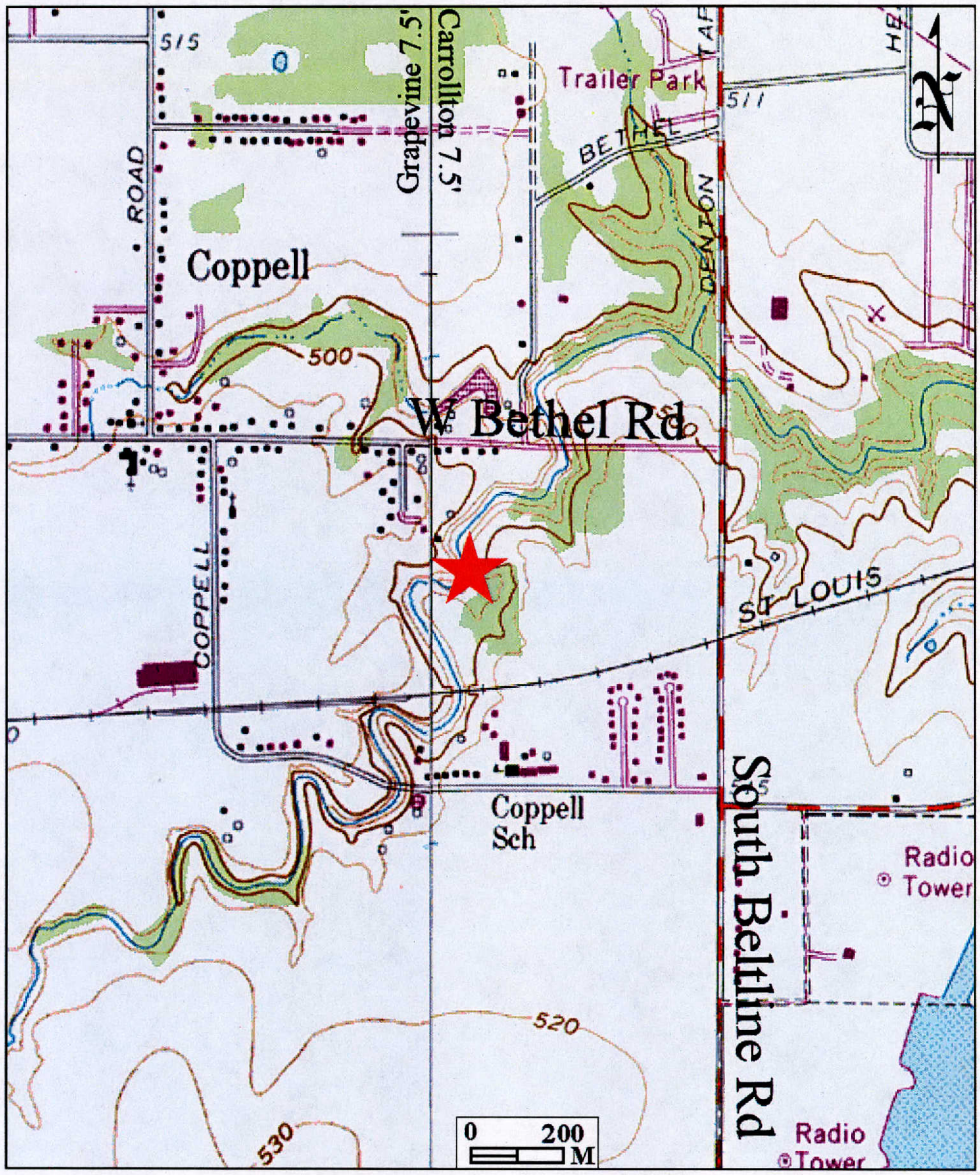

Figure 1. Grapevine Springs Park located on portions of the Grapevine and Carrollton, Texas 7.5' USGS maps.

NATURAL ENVIRONMENT

The project area lies at the western edge of the Blackland Prairie plant community of North Central Texas where it interfingers with the Eastern Cross Timbers (Diamond, Riskind, Orzell 1987: Figure 1). The undivided Upper Cretaceous Eagle Ford group underlies this entire area from the south edge of the Denton Creek floodplain west to Grapevine and south to Irving and the valley of the West Fork of the Trinity River (Bureau of Economic Geology 1972). Grapevine Creek is incised into the bedrock formations that include sands, clay, mudstone, gravels, and cemented gravels with scattered areas of sandstone. The proposed facility is located approximately four and a half miles from the confluence of Grapevine Creek and the Elm Fork of the Trinity River.

The study area is located within the Wilson-Rader-Axtell Soil Association which consists of nearly level to gently sloping upland loams (Coffee, Hill and Ressell 1980:General Soils Map). Specific soils are mapped as Axtell fine sandy loam with 1 to 3 percent slopes and Silawa fine sandy loam with 2 to 8 percent slopes (Coffee, Hill, and Ressel 1980:1). The deepest subsoil is listed as being 8 inches (20 cm) below the ground surface and it belongs to the Axtell series (Coffee, Hill and Ressel 1980:55).

A consensus about the paleoenvironmental conditions of North-Central Texas over the past 12,000 years has not been reached. Discussions by Prikryl (1993), Ferring and Yates 1997), Humphrey and Ferring (1994), and Brown (1998) offer disparate interpretations based on different analytical approaches. The following discussion relies heavily on Ferring's investigations and focuses upon the past two thousand years. Correlating periods of rapid alluviation with higher precipitation and slow alluviation with drier conditions, Ferring has concluded that the Late Holocene [5000 yr BP to the present] was a wet period with moderate alluviation, except for a dry period between 2000 and 1000 yr BP [from AD 1 to 1000]. It was during this dry period that the West Fork Paleosol was established on the stable surfaces of the river meanders along the Upper Trinity and its tributaries. This interpretation is supported by changing patterns seen in stable isotope analysis. Brown (1998) offers a differing interpretation based on isotopic analyses of mussel shells from a prehistoric site on Denton Creek. He concludes that the period from 1500 to 2500 yr BP was cooler and/or wetter and that before and after the environment was warmer and drier, but he points out that this interpretation may only be applicable for the Elm Fork tributary and not the region.

CULTURAL HISTORY

The culture history of the Metroplex area has been summarized by various authors beginning with C.A. Smith (1969), and more recently by Yates and Ferring (1986), Prikryl (1990), and Peter and McGregor (1988). The following discussion synthesizes these sources as they relate to the archaeology of the Elm Fork Watershed.

Culture History

The following prehistoric culture history is derived largely from the Elm Fork survey monograph (Prikryl 1990). We have added a Historic European period.

Paleo-Indian	pre-6,500 BC
Archaic	6,500 BC - AD 700
Late Prehistoric	AD 700 - AD 1600
Protohistoric	AD 1600 - AD 1800 [Historic Native American]
Historic European	AD 1800 to Present

Using the above temporal framework, the following paragraphs present a brief description of the culture history of the area.

The Paleoindian period is distinguished by distinctive projectile point styles (Bever and Meltzer 2007:Table 1). Many of the points are made of exotic cherts that are not native to North Central Texas. The Lewisville site (Crook and Harris 1957) anbd the Aubrey Clovis site (Ferring 2001) in Denton County and the Frognot site (41COL165) in Collin 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. On the Elm Fork, Prikryl (1990:71) 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. The population density continued to be low. Late Archaic sites increase in number over the previous period, and sites are located both along the Elm Fork and its tributaries. There appears to be a shift in site location to 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 (Skinner 1981; Prewitt 1983) as evidence of increased territorial constriction.

During the subsequent Late Prehistoric period, the bow and arrow and pottery appear in artifact assemblages (Shafer 1977). Houses and probable evidence of agriculture first appear during this period, as shown at the Cobb-Pool site on Mountain Creek (Raab and

Woosley 1982), and at site 41DL12, if a mussel-shell hoe indicates farming (Hughes and Harris 1951). Site locations mirror those of the Late Archaic, and quartzite continues as the common material for chipped stone projectiles and tools along the Elm Fork. The West Fork Paleosol is tentatively dated to this period, although it has been dated earlier that AD 800 in some places. Drying continued into the subsequent period. Buffalo bones are common in later prehistoric sites (Dillehay 1974; Lynott 1979), and along with tools normally expected to occur at sites on the High Plains. It also appears that sites are once again located on sandy terraces above the floodplains.

Historic Native Americans are reported in Dallas County by numerous authors. Very little archaeological evidence of historic Native American occupation has been found in the area. This is a pattern seen throughout much of North-Central Texas (Skinner 1988; Peter, Cliff, and Green 1996:3).

The Anglo-American history of the Upper Trinity River Basin has been divided into the Frontier, Initial Cash Crop, Tenant Farming, and Agribusiness periods by Richner and Lee (1976:125-133). The Frontier period lasted from about 1820 to 1850 and was followed by the Initial Cash Crop period which lasted until 1870. Tenant Farming began at 1870 and continued to about 1940. Agribusiness began after the Great Depression and continues to the present.

Previous Investigations

The history of Grapevine Springs Park (41DL329) is well documented in a report by Green, Lorrain, and Lorrain (1994) and the reader is referred to that report for details. With claims as an important Sam Houston camp site where a treaty was signed, construction of a formal park by the Works Progress Administration (WPA) was begun in 1936-1937. The State of Texas refused to accept the area as a state park after research indicated the treaty was signed by Sam Houston at Bird's Fort. Dallas County accepted responsibility for maintenance and it became a county park. The start of World War II diverted funds to maintain the park, and it reverted to the original owners who leased it for agricultural use until the early 1950s. Based on plans for a highway loop that would pass near Grapevine Springs Park, a Dallas real estate developer purchased the property and proposed to build an amusement park. However, when the City of Dallas abandoned plans for the highway, development of the park ceased. In the 1970s, the park was given to the Baptist Foundation, and in 1991 the Baptist Foundation donated 15 acres of the site to Dallas County with the City of Coppell providing maintenance.

A portion of the park area was investigated by AR Consultants (Trask and Skinner 2000). Results of the survey included increasing the park by another three acres. Recommendations included that the two stone pillars associated with the west entrance to the park be restored.

METHODOLOGY

Two methods were utilized in the testing of the park. First, various areas were cordoned off and possible artifact locations were investigated by people walking in parallel transects about 2 m apart using metal detectors. Transects were oriented to fit the individual survey area. Artifact locations were flagged in each area and a map of the artifact concentrations was made.

On the return visit, four 1x1 meter test units were placed in the artifact concentrations in four separate areas. Test units were excavated in 10 cm levels and artifacts were bagged according to test unit and level. Sheets were filled out for each level. Soil from the test units was screened through a ¼-inch hardware cloth shaker screen. Photographs also were taken.

No artifacts were curated due to their either being less than 50 years old.

RESULTS

The following discussion presents a brief description of our findings. The metal detector survey is described first and followed by a discussion of the excavation of the test units. Conclusions derived from the testing end the chapter.

Metal detector survey

On May 12, 2007, various residents of Coppell gathered at the entrance to Grapevine Springs Park. They were divided into groups and captains for each group were chosen for the metal detector surveys of various areas in the park. An overall map of the park (Figure 2) presents the various areas examined during the metal detector survey. Each metal detector group was escorted by members of the Dallas Archeological Society (DAS) and AR Consultants, Inc.

The surveyors walked various oriented transects spaced approximately 2 m apart with the metal detector as shown in Figure 3. Hits were flagged (Figure 4) and then concentrations were mapped. No testing was done at the time. An example of the artifact concentration maps is shown as Figure 5.

Testing

As previously stated, four test units were excavated (Figure 6). Two test units (TUs 1 and 2) were placed away from Grapevine Creek where numerous hits from the metal detector had been made and two (TUs 3 and 4) were placed adjacent to Grapevine Creek. The loamy clay was removed by using trowels and shovels. It was intended to screen the loamy clay matrix but this was not done due to the hardness of the soil matrices but the sandy loam was screened through a ¼-inch hardware cloth screen.

Test Unit 1 was excavated to 20 cm below the ground surface. The soil consisted of dark grayish-brown (10YR4/2) sandy loam. The first level (0-10 cm) was culturally sterile but a bone fragment and a metal nut were recovered from the second level (10-20 cm). None of these were considered older than 50 years.

The upper 10 cm of Test Unit 2 consisted of brown (10YR4/3) sandy loam and from 10 to 20 cm below the ground surface consisted of very dark grayish-brown sandy loam. The crew is shown excavating the test unit in Figure 7. Seven eroded wire nails were recovered in the upper 10 cm level. Charcoal also was encountered but was too dispersed to be collected. Fourteen very eroded wire nail and nail fragments and a piece of metal of an unknown function were recovered from level 2 (10-20 cm) None of the artifacts recovered were over 50 years old.

Test Unit 3 was excavated to 22 cm below the ground surface before being terminated due to encountering impenetrable gravel. The soil matrix was brown (10YR4/3) loamy clay containing limestone gravel. No cultural materials were found.

Test Unit 4 was excavated to 40 cm below the ground surface. The upper soil horizon consisted of very dark grayish-brown (10YR3/2) loamy clay. The bottom zone consisted of brown (10YR4/3) slightly loamy clay. No cultural materials were uncovered.

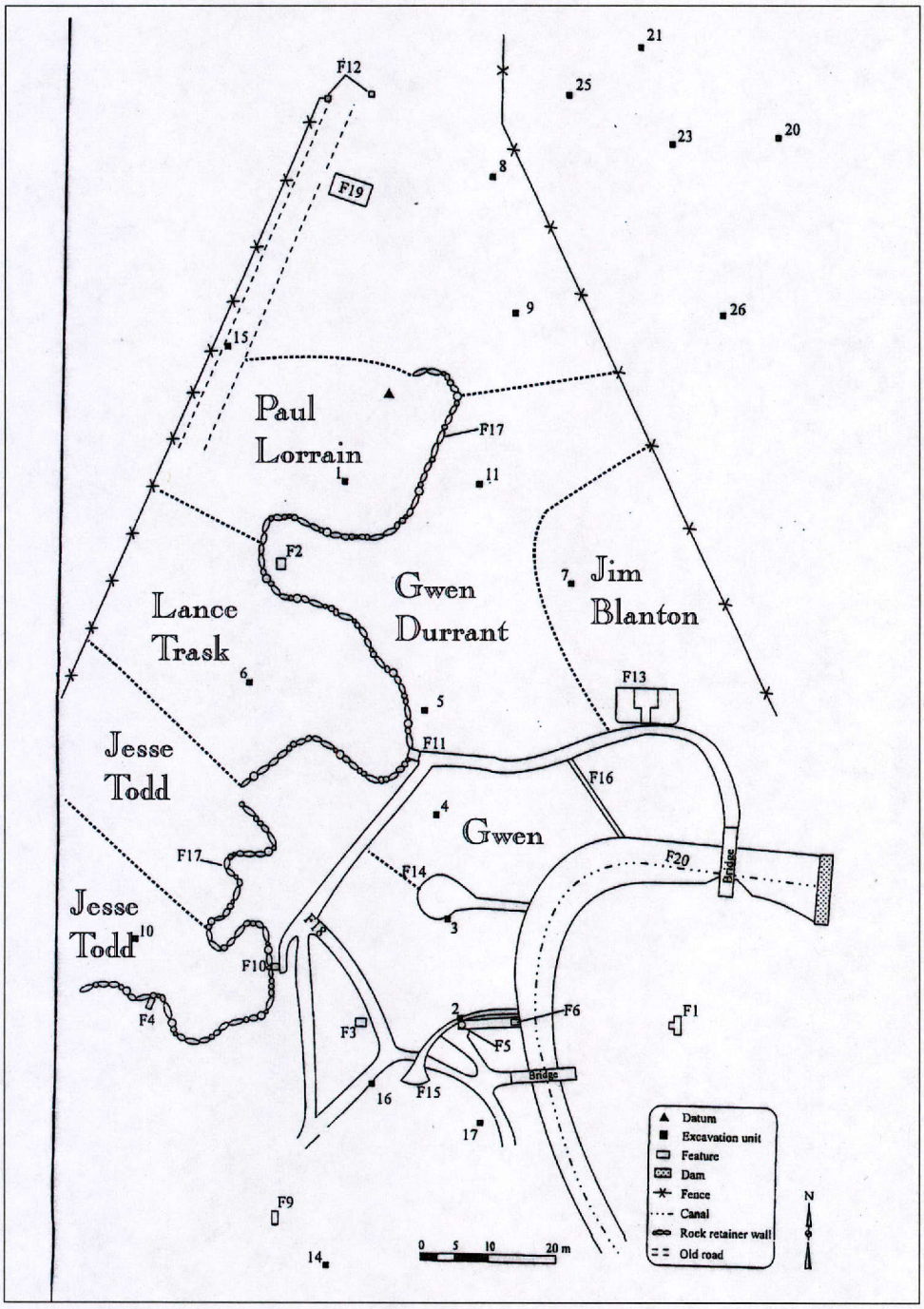

Figure 2. Map showing various metal detector survey areas and members of DAS or ARC who were responsible for that area. The reason for the numbers is unknown. Map furnished by the Coppell Historical Society.

Figure 3. Lance Trask of AR Consultants, Inc. overseeing metal detector survey. View is to the southwest.

Figure 4. Flags indicate hits by metal detector. View is to the south.

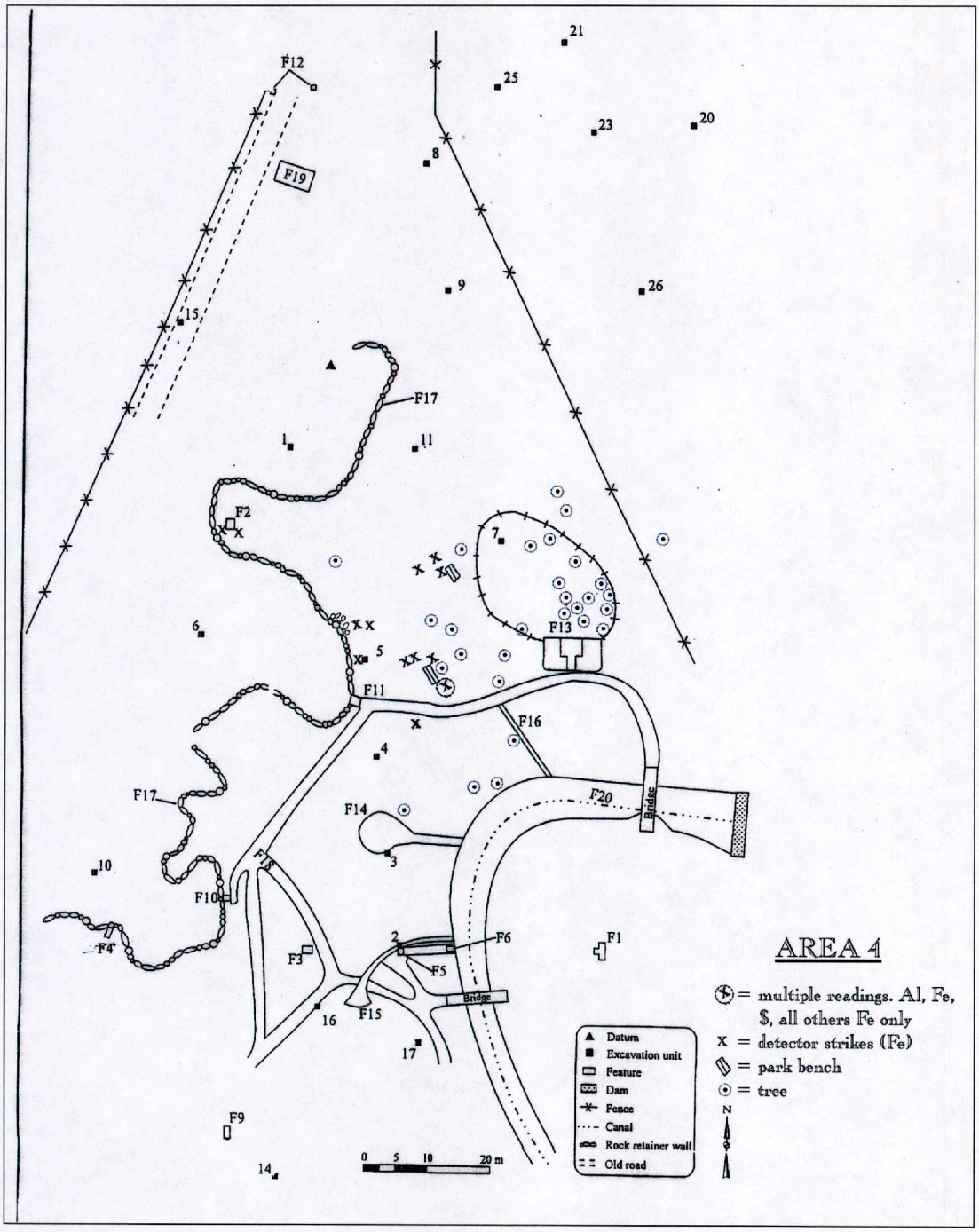

Figure 5. Artifact concentration map made during metal detector survey by Gwen Durrant of the Dallas Archeological Society.

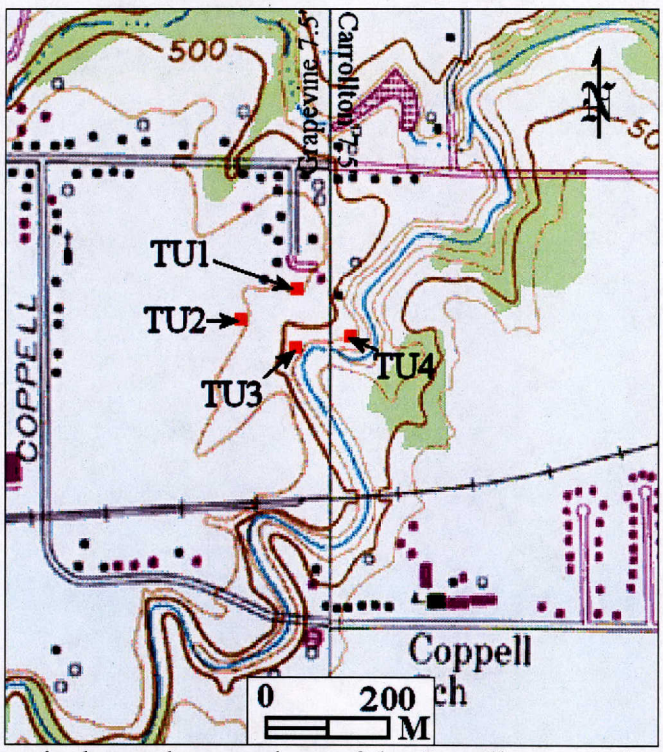

Figure 6. Test units located on portions of the Carrollton and Grapevine, Texas 7.5' USGS maps.

Figure 7. Excavation of TU 2 overseen by Cody Davis. Don Carter of the Coppell Historical Society also is overseeing the excavation. Lou Duggard of the Coppell Historical Society is the gentleman with the shovel. View is to the north.

Conclusions

No cultural materials older than 50 years were uncovered during the archaeological testing within the Grapevine Springs Park. Although a spring is present, no prehistoric cultural materials were discovered and this may be a result of the terracing and construction done to create the park by the Works Progress Administration (WPA). The absence of diagnostic historical cultural materials may be attributed to the fact that the park probably was not utilized well into the 1950s and probably the 1970s.

RECOMMENDATIONS

Based upon the results of the surveys conducted by Green, Lorrain and Lorrain (1997) and AR Consultants (Trask and Skinner 2000) and the results of this investigation, it appears that the park has a low potential of containing both prehistoric and historic cultural materials. We do recommend that the WPA structures be stabilized and preserved.

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