SAN MARCOS CITY PARK
ARCHAEOLOGICAL SURVEY

HAYS COUNTY, TEXAS

by

Jimmy Barrera

Principal Investigators: C. Britt Bousman and David L. Nickels

Texas Antiquities Permit No. 2731

Technical Editor: Connie Thompson Gibson

Center for Archaeological Studies
Southwest Texas State University
Technical Report No. 4
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Cover Photograph: The San Marcos River at City Park (view to southwest).
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The following information is provided in accordance with the General Rules of Practice and Procedure, Chapter 41.11 (Investigative Reports), Texas Antiquities Committee:

1. Type of Investigation: Archival research, pedestrian survey, and shovel testing

2. Project Name: San Marcos City Park Survey

3. County: Hays

4. Principal Investigators: C. Britt Bousman and David L. Nickels

5. Name and Location of Sponsoring Agency: City of San Marcos, 630 East Hopkins, San Marcos, TX 78667

6. Texas Antiquities Permit Number: 2731

7. Published by the Center for Archaeological Studies, Southwest Texas State University, 601 University Drive, San Marcos, Texas 78666 (2002)

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Center for Archaeological Studies, Southwest Texas State University
601 University Drive, San Marcos, Texas 78666
Abstract

At the request of the City of San Marcos, the Center for Archaeological Studies (CAS) conducted archaeological testing of the playground in San Marcos City Park under Texas Historical Commission Antiquities Permit No. 2731. The testing was conducted on October 26 and 29, 2001, to determine whether scheduled renovation of the playground would disturb potentially intact prehistoric or historic cultural material. Shovel testing revealed possibly intact subsurface deposits below approximately 50 cm of disturbed deposits, and subsequently site 41HY319 was recorded. CAS assessed that it is unlikely that cultural resources would be impacted during construction of the playground equipment, as planned construction activities will not extend below the previously disturbed zone.
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Acknowledgements

I would like to thank Dave Nickels who has guided me through good and bad weather and is always willing to help out, along with Dr. Britt Bousman, who has provided numerous opportunities and has shown outstanding patience and leadership. I would also like to thank the staff at the Center for Archaeological Studies for their assistance in making this project possible.
Introduction

The Center for Archaeological Studies (CAS) conducted shovel testing of the playground area to be renovated in San Marcos City Park (Figure 1) for the City of San Marcos under the authority of Texas Historical Commission (THC) Antiquities Permit 2731. The THC regulates historic sites on public lands as part of the Texas Antiquities Code.

One prehistoric lithic scatter was located on the northwest section of the test area approximately 25 meters from the San

Figure 1. San Marcos city map showing location of City Park. Inset: Hays County, Texas.
Marcos River, and assigned the site trinomial 41HY319. Two crewmembers completed seven shovel tests on October 26 and 29 of 2001, uncovering evidence of buried archaeological occupations. Three of the shovel tests may contain intact prehistoric deposits. Artifacts discovered were on the surface and buried in alluvial deposits. Disturbance from modern construction was evident across the entire project area and in the top 50 cm of the majority of the shovel tests.

Background

The San Marcos City Park project vicinity (Figure 2) has been frequently disturbed during modern times. Park personnel mentioned houses having been removed from the playground area in the past. The playground project area (Figures 3 and 4) and the immediate surroundings are disturbed to some degree. It should be noted that four trashcans, two benches, and two picnic benches were present in the area, indicating that a high level of modern materials could be present in the deposits.

Surface visibility was restricted to a small area bordering a concrete basketball court with “1972” inscribed into the concrete. In this area disturbance on the surface was clearly evident by the presence of modern materials such as pull-tabs, glass, construction fill gravels, and asphalt mixed with prehistoric artifacts.

Due to these artificial impacts, subsurface damage was imminent.

Figure 2. San Marcos City Park showing playscape and crew excavating shovel tests (view to east).
Figure 3. Crew excavating shovel tests in City Park playground area (view to southeast).

Figure 4. Surface visibility was restricted to areas bordering the concrete (view to east).
Natural Setting

The project area is located within the San Marcos River floodplain approximately 450 m from the Balcones Escarpment, and 25 m from the San Marcos River (Figure 5). The area today is characterized as having a humid subtropical climate, placing it in the South-Central climatic region of Texas, with an annual mean temperature of around 67°, and an average annual mean precipitation of 34 inches, falling mostly between spring and late fall (Schroeder et al. 1999:6). The soils in the project area are Oakalla; frequently flooded clay loam soils that are deep, nearly level soils on smooth to slightly undulating flood plains. The well-drained Oakalla soils are briefly flooded at least once every two years, creating a slight chance of water erosion and alluvial deposition. The soils provide high yields of native vegetation including tall-mid grasses like grammas and bluestem (Ellis et al. 1995). Oakalla soils also provide good conditions for pecan and cypress trees, which help provide adequate food and cover for deer, turkey, dove, quail, and many other species (Batte 1984).

Regional Cultural Background

The project area is located within the area of Texas known as the Central Texas Archaeological Region according to Prewitt (1981). This is a distinct cultural-geographic area encompassing "the eastern half of the Edwards Plateau, the Llano Uplift, most of the Lampasas Cut Plains, the Comanche Plateau, the southern end of the Grand Prairie, and the Blackland Prairies bordering the Balcones Escarpment from near Waco to
near Uvalde” (Prewitt 1981:71). The prehistory of Central Texas will be presented in the chronological framework according to Collins (1995). The cultural time periods in discussion are the Paleoindian period, the Archaic period, the Late Prehistoric period, and the Historic period.

**Paleoindian Period**

The archaeological record of this period is indicated by the presence of lanceolate stone points associated with prismatic blade manufacturing, engraved cobbles, bone shaft straighteners, and stone bolas. Less reliance was placed on gathering vegetal foods during the Paleoindian period than in the Archaic period (Ricklis and Collins 1994). By identifying a temporal sequence in the point types from the Paleoindian period, it is possible to distinguish several periods of occupation in Central Texas. Early Paleoindian cultures (ca. 11,500–10,000 years B.P.) are represented in Central Texas by the lanceolate fluted Clovis and Folsom type points.

The Late Paleoindian period (ca. 10,000–8,800 B.P.) is divided into three sequential cultural intervals defined by the presence of projectile points such as Golondrina-Barber, St. Mary’s Hall, and Wilson (Collins 1995 66:376). Lifeways more reminiscent of later cultural developments experienced during the Archaic period are seen at the Wilson-Leonard site in Williamson County, where Wilson dart points were found in association with thermal features, a burial, and faunal remains (Collins 1998).

Paleoindian sites in the vicinity of the project area include 41HY147, 41HY160, 41HY161, and 41HY165, which are all located within one km to the north-northwest in the Spring Lake area. Joel Shiner (1981, 1983) discovered abundant Paleoindian material at 41HY147. These sites contain repeated Paleoindian through Late Prehistoric occupations.

**Archaic Period**

The Archaic period was a time when hunter-gatherers developed new subsistence strategies to cope with the rapidly changing environment, brought on by a regional climatic warming trend that had begun at the end of the Pleistocene and was well established by the beginning of the Early Archaic period (ca. 8,800–6,000 B.P.). The Early Archaic is the first period where we begin to see burned rock accumulations, interpreted as small gathering and hunting camps, which may indicate a specialization in food gathering (Prewitt 1981). Site 41HY261, located downstream in Crook’s Park, is recommended as eligible for nomination to the National Register of Historic Places and may contain continual occupations from Early Archaic through Historic periods, based on a projectile point identified as an Early Triangular collected from the surface (Cargill and Brown 1997). Deposits deeper than 150 cm could possibly be encountered in future work on 41HY261.

The Middle Archaic period (ca. 6,000–4,000 B.P.) is readily distinguished from the Early Archaic period by an altithermal episode that created a warmer and drier climate. An increase in the number and size of burned rock middens along with an increased number of projectile points is characteristic of the Middle Archaic period. Prewitt (1981) suggests that the heavy increase in burned rock middens reflects a specialization of specific plant resource procurement and possibly plant processing. The frequency of campsites, the drastic
increase in burned rock middens, and number of projectile points is profoundly greater than in the Early Archaic period.

A change back to a cooler or wetter climate, along with less reliance on plant foods indicated by the decrease in burned rock middens, is characteristic of the Late Archaic period (ca. 4,000–1,200 B.P.). A proliferation of projectile point types is seen with broader blades, such as Pedernales, Castroville, Marshall, and Marcos types. Bison are thought to have migrated from the north more frequently, possibly creating a more productive faunal resource, and rock shelters are used more frequently—although terrace locations continue to be the most preferred site locations (Kotter 1994). Marine shell artifacts are present in the archaeological record, indicating extensive interregional trade networks (Ricklis and Collins 1994). Toward the end of the Late Archaic period, a shift is seen in projectile point morphology to smaller points with expanding stems, such as Ensor, Darl, and Frio, during a period referred to as the Transitional Archaic (ca. 1,700–1,300 B.P.).

Transitional Archaic sites in the vicinity of the project area include 41HY133, located along the San Marcos River approximately 325 m to the south of the project area. Sites 41HY135, 41HY141, and 41HY134, all situated within one km of the project area, are sites recorded with 41HY133 in 1977 by J. Warren (Texas Historical Commission 2001). All of the sites contain prehistoric components that have been disturbed due to modern construction activities.

**Late Prehistoric Period**

During this period the replacement of the dart and atlatl by the bow and arrow occurs, along with what paleoclimatologists recognize as a brief mesic interval that favored the expansion of grasslands (Bousman 1998). It is theorized that the resurgence of grassland habitat influenced the growth of ungulates and might have been a factor in the increase in bison numbers during this period, stimulating the development of the bow and arrow (Schroeder 1999:16). Two phases are identified from this period, beginning with the Austin Phase (ca. 1,300–800 B.P.), during which conflict may have occurred between the inhabitants of Central Texas, as evidenced by expanding-stem Scallorn arrow points found in burials and determined to be the cause of death.

The second Prehistoric phase was the Toyah phase (ca. 800–300 B.P.), during which the continued hunting-gathering form of subsistence had a greater reliance on bison than during the Austin Phase (Rector 2001:7). Bison are believed to have migrated into Central Texas during this interval (Dillehay 1974). There was a shift from bifacial reduction to the use of prismatic blades and blade-like flakes in the manufacture of scrapers, drills, and arrow points like the contracting-stem Perdiz point type. Bone-tempered ceramics are seen during the Toyah Phase, introducing diagnostic ceramics such as Leon Plain.

**Historic Period**

The first European explorers to come into the San Marcos area appeared around 1691 when Alonzo de León established a road which partially followed a Jumano Indian trade route that skirted the Balcones Escarpment (Godwin et al. 2000:11). Later rerouted to become known as the Camino Real, this road passed through modern day San Marcos, becoming a vital link between the Mission San Juan Bautista to the Spanish
The San Marcos River was the temporary location of two Spanish missions beginning in 1755. In an attempt to improve conditions, the San Xavier Mission establishment, comprised of missions Nuestra Señora de la Candelaria and San Ildefonsa, was moved from the San Xavier River to the San Marcos River for two years. The exact location of the missions is not yet known. According to Stovall (et al. 1986), the location of the missions on the river has not been authenticated, though one site is attributed to the hill above Aquarena.

Another presumed location of the missions and the 1755 presidio were at the same location as the settlement of San Marcos de Neve in 1808, at the crossing of the Camino Real on the San Marcos River (Stovall et al. 1986:6-8). There has been speculation that the San Xavier Mission was established at Aquarena Springs, either under the present Bobcat Stadium parking lot or in the Aquarena golf course (Godwin et al. 2000:12). However, recent investigations at both locations failed to discover any Spanish remains (Jones 2002; Soucie 2002).

Edward Burleson first acquired land in the present San Marcos area in 1836, and by the time of his death in 1851, General Edward Burleson had contributed significantly to the development of San Marcos. Burleson acquired the land at the head of the San Marcos River in 1845, and by 1848 had acquired areas around the springs, present Lime Kiln Road, and Sink Springs (Stovall et al. 1986:24-25, 82). By 1849 Burleson had constructed a saw and gristmill on the San Marcos River by building a dam on the river to direct water through the millrace (Stovall et al. 1986:71-75; Smyrl 1996:869). Burleson’s home was located on the hill above the San Marcos Springs (Stovall 1986:75).

Present-day San Marcos was thoroughly established by the time of Edward Burleson’s death in 1851. With the arrival of the railroad in 1880 the desperate San Marcos economy was revived (Cecil and Greene 1996 3:520-521). Electricity arrived in 1890 through the use of the mill tract that was later transferred to the San Marcos Water Company. A. B. Rogers acquired the springs in 1926 and with his son, Paul, proceeded to build a recreational park. By 1928 they had constructed the Spring Lake Hotel and developed the Aquarena Springs Resort (Kleiner 1996 1:214).

**Goals and Methods**

**Field Methodology**

The Center for Archaeological Studies (CAS) surveyed and excavated shovel tests in the San Marcos City Park project area in order to determine whether cultural resources were present and could possibly be impacted by construction activities.

Fieldwork was conducted on October 26 and 29, 2001, through inspection of the ground area and excavation of seven interspersed shovel tests (Figure 6). All shovel tests were 30 cm in diameter and were excavated to a depth of 70 cm. The shovel tests were excavated in 10-cm levels and the matrix from each 10-cm level was then sifted through ¼-inch wire mesh. All cultural material was collected and bagged according to level. Shovel test forms filled out during excavation included for each level: soil color, texture, structure, type of mottling if present,
inclusions, material collected, and remarks. Careful attention was paid to signs of disturbance, and the presence of intact deposits. Boundaries of the San Marcos City Park project area were identified using two maps, one of the playground prior to renovations (see Figure 6) and one of the proposed playground (Figure 7).

Using these maps, the shovel tests were placed in order to thoroughly test the project area. Photographs were taken using a Sony Mavica 1.6 megapixel digital camera. A Trimble GeoExplorer 3 handheld GPS was then used to plot the shovel tests, the playground boundary, the paved area bordering the project area, and part of the pedestrian trail bordering the project area.

Laboratory Methodology

Artifacts recovered from the shovel tests were transported to the CAS laboratory for washing, labeling, analysis, and curation. Artifacts were sorted, counted, and analyzed according to type as listed in Table 1. Prehistoric artifacts include flakes (with platforms, bulbs, and a majority of flake present), and firecracked rock (FCR). Historic and modern artifacts include glass, aluminum, and plastic. An Excel spreadsheet was prepared using the data from the shovel tests to provide horizontal and vertical data. Maps produced for the San Marcos City Park Project were created in Arcview software using the GPS data.

Figure 6. Shovel Test locations 1-7 at the San Marcos City Park, showing the old playground layout.
Figure 7. Shovel test locations in City Park with projected playground renovations.

Table 1. San Marcos City Park Archaeological Survey 2001 shovel test results.

<table>
<thead>
<tr>
<th>Level/Depth</th>
<th>ST 1</th>
<th>ST 2</th>
<th>ST 3</th>
<th>ST 4</th>
<th>ST 5</th>
<th>ST 6</th>
<th>ST 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 cm</td>
<td>2 brown glass, aluminum Dr. Pepper cap</td>
<td>1 clear glass, 2 flakes</td>
<td>3 plastic</td>
<td>1 brown glass</td>
<td></td>
<td>2 plastic, 3 flakes</td>
<td></td>
</tr>
<tr>
<td>10-20 cm</td>
<td>2 glass, 1 plastic, 1 flake</td>
<td>1 plastic, 1 glass, 1 metal</td>
<td>1 clear glass</td>
<td>3 FCR, 1 flake</td>
<td>1 aluminum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30 cm</td>
<td>1 brown glass, 1 flake</td>
<td>1 charcoal</td>
<td>1 plastic, 1 rubber particle</td>
<td></td>
<td>1 burned clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-40 cm</td>
<td>1 brown glass</td>
<td>1 freshwater shell, 1 flake</td>
<td></td>
<td>1 snail shell</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-50 cm</td>
<td>1 brown glass</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 flakes</td>
<td></td>
</tr>
<tr>
<td>50-60 cm</td>
<td>1 flake</td>
<td></td>
<td></td>
<td>1 flake, 2 concrete</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-70 cm</td>
<td>2 flakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Results

Seven shovel tests excavated in the .4-acre project area (see Figure 6) identified a new site—41HY319. All seven shovel tests contained prehistoric artifacts (listed in Table 1).

The A horizon contained a dark brown (10YR 3/3) moist clay loam with a moderate to strong subangular blocky structure, few roots, few snails and snail fragments, and a gradual smooth boundary.

The A/B horizon consisted of a brown moist clay loam with moderate subangular blocky structure, roots, few snail fragments, and a gradual smooth lower boundary.

The B horizon contained a red-brown moist clay loam with moderate subangular blocky structure, few roots, and continued to 70 cm, at which level all shovel tests ceased excavation.

The A and AB horizons are fairly disturbed, due to repeated renovation of the playground area (personal communication with park personnel).

The B horizon appears to contain intact deposits with the exception of Shovel Test 4, which produced evidence of disturbance at a depth of 60 cm.

Shovel Tests 1, 2, 4, and 6 produced evidence of disturbed cultural deposits. Shovel Test 6 may contain intact cultural deposits from 20–30 cm, producing a burned clay nodule that may indicate the presence of a burned rock feature in the vicinity, but the evidence is not conclusive.

Shovel Tests 3, 5, and 7 tested positive for possibly intact cultural deposits. Shovel Test 3, disturbed from 0-50 cm, could possibly contain intact cultural deposits from levels 50-60 cm and 60-70 cm, in which one flake and two flakes were recovered, respectively. Shovel Test 5 did not contain clear signs of disturbance and may contain intact cultural deposits from 10-20 cm, evidenced by one flake and three small (<3 cm in diameter) firecracked rocks. Shovel Test 7 did not contain clear signs of disturbance and may contain intact cultural deposits from 40–50 cm, where two flakes were recovered.

Archaeological testing demonstrated that the San Marcos City Park project area is located on a prehistoric site now named 41HY319. Fifteen flakes, burned clay and firecracked rocks were found within seven shovel tests. No prehistoric features were identified, nor temporally diagnostic artifacts. Additionally, the distribution of historic artifacts suggests the deposits were mixed in some areas beyond the depth of impact.

Conclusions and Recommendations

Archaeological testing demonstrated that 41HY319 contains moderately deep deposits with an unknown vertical depth due to the termination of shovel test excavations at 70 cm.

At present 41HY319 cannot be assigned to a recognized cultural period, but the general stratigraphic position suggests a Late Holocene age.
The impact of renovations for the playground is stipulated not to exceed two feet in depth. Due to the disturbance noted in the upper two feet, it is recommended that the City of San Marcos be allowed to proceed with the renovations and continue use of the playground (Figure 8).

Further testing is recommended to test the deeper deposits if excavation greater than two feet is planned in the future.

Figure 8. Clients of the San Marcos City Park.
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Texas Historical Commission