

Archaeological Monitoring of the CKT M171 Pole Replacements Project in Bexar County, Texas

by
Sarah Wigley



Texas Antiquities Permit No. 9426

REDACTED

Principal Investigator
Cynthia Munoz

Prepared for:
Adams Environmental, Inc.
13032 Nacogdoches Road, Suite 214
San Antonio, Texas 78217



Prepared by:
Center for Archaeological Research
The University of Texas at San Antonio
One UTSA Circle
San Antonio, Texas 78249-1644
Technical Report, No. 105

© CAR April 2024

Archaeological Monitoring of the CKT M171 Pole Replacements Project in Bexar County, Texas

by
Sarah Wigley

Texas Antiquities Permit No. 9426

REDACTED

Principal Investigator
Cynthia Munoz



Prepared for:
Adams Environmental, Inc.
13032 Nacogdoches Road, Suite 214
San Antonio, Texas 78217

Prepared by:
Center for Archaeological Research
The University of Texas at San Antonio
One UTSA Circle
San Antonio, Texas 78249
Technical Report, No. 105

Abstract:

Beginning in August of 2020 through April of 2021, the Center for Archaeological Research (CAR) at the University of Texas at San Antonio (UTSA) conducted archaeological monitoring of 20 CPS Energy (CPS) pole locations west of downtown San Antonio, Bexar County, Texas in response to a request from Adams Environmental, Inc. (AEI). The project area encompassed 42 pole locations. The project area is located on City of San Antonio (COSA) right of way (ROW) property. At the municipal level, the property falls under COSA's Unified Development Code (UDC) (Article 6 35-630 to 35-634). The project also required review by the Texas Historical Commission (THC) under the Antiquities Code of Texas. CAR obtained Texas Antiquities Permit No. 9426 prior to the beginning of fieldwork. Sarah Wigley served as the Project Archaeologist and Dr. Raymond Mauldin served as the Principal Investigator during the fieldwork portion of the project, while Cynthia Munoz served as Principal Investigator during the report production.

The broad area in which the poles were located spans 152 ha. (377 acres) bounded by Ruiz Street to the north, El Paso Street to the south, Navidad Street to the west, and Colorado Street to the east, although only the ROW portions are included within the project area. Twenty of the 42 poles were monitored. After consultation with CPS, it was determined that the remainder of the pole holes were excavated without notifying the CAR. CPS informed the THC that this occurred. THC determined that no action was required regarding the permit violation. Cultural resources of concern included nearby historical sites as well as the potential for deposits related to the Battle of Alazán Creek. No evidence of intact cultural deposits or cultural features was observed during monitoring. The CAR does not recommend any further work. All records generated during the course of this project are curated as accession number 2790.

This page intentionally left blank.

Table of Contents:

Abstract	iii
List of Figures	vii
List of Tables	ix
Acknowledgements	xi
Chapter 1: Introduction	1
Chapter 2: Project Background	3
Environment	3
Culture History	3
Prehistoric	3
Historic Period	6
Previous Archaeology	9
Chapter 3: Methodology	13
Field Methods	13
Laboratory Methods	13
Chapter 4: Results	15
North of Alazàn Creek	16
South and West of Alazàn Creek, North of Commerce	16
South of Commerce, North of San Fernando	17
On or South of San Fernando	18
Summary	18
Chapter 5: Summary and Recommendations	19
References Cited	21

This page intentionally left blank.

List of Figures:

Figure 1-1. Project area on an aerial map 1

Figure 1-2. Project area on a topographic map 2

Figure 2-1. Map of soils within the project area..... 4

Figure 2-2. Previously recorded archaeological sites and historic resources within 0.5 km of the project
area REDACTED IMAGE 10

Figure 4-1. Map of pole holes monitored (blue) and pole holes completed without a monitor (red)..... 15

Figure 4-2. Pole hole excavated at 1212 Perez. Note clumpy clays near the surface, sand deposits near the bottom 16

Figure 4-3. Pole hole excavated in Jesus Alley. Note sand fill in west wall 17

Figure 4-4. Pole hole excavated at 1619 Monterey; note copper pipe and utility trench fill..... 17

This page intentionally left blank.

List of Tables:

Table 2-1. Archaeological Sites within 0.5km of the Project Area	9
--	---

This page intentionally left blank.

Acknowledgements:

Thank you to Mikaela Razo, Michelle Carpenter, Jason Perez, and Lynn Kim, who assisted in completing the fieldwork. Thank you to Dr. Raymond Mauldin, previous CAR Interim Director, who offered guidance throughout the fieldwork for this project. Thank you to Cynthia Munoz, who oversaw curation of the records generated during the course of this project and oversaw report production as CAR Interim Director. Thank you to Dr. Jessica Nowlin, Peggy Wall, and Dr. Lynn Kim, who produced maps and graphics and processed the GIS data. Thank you to Dr. Mary Whisenhunt, who reviewed a draft of this report and provided helpful comments. Peggy Wall also produced the final version of this report. Thank you to Heath Bentley, Archaeologist at CPS Energy, Sable Kitchen and David Yelacic of Adams Environmental, Inc., and Matthew Elverson, City Archaeologist at the City of San Antonio Office of Historic Preservation, for their help in coordinating and reviewing this project.

This page intentionally left blank.

Chapter 1: Introduction

In response to a request from CPS via AEI, the CAR monitored excavations associated with the replacement of 42 poles west of Downtown San Antonio, Bexar County, Texas intermittently from August 19, 2020 through April 29, 2021. The project area is located on COSA ROW property. At the municipal level, the property falls under COSA's UDC (Article 6 35-630 to 35-634). The project also required review by the THC under the Antiquities Code of Texas. CAR obtained Texas Antiquities Permit No. 9426 prior to the commencement of monitoring. Sarah Wigley served as the Project Archaeologist and Dr. Raymond Mauldin served

as the Principal Investigator during the fieldwork portion of the project. Cynthia Munoz served as Principal Investigator during the report production.

The broad project area is bordered by Ruiz Street to the north, El Paso Street to the south, Navidad Street to the west, and Colorado Street to the east (Figures 1-1 and 1-2). This area encompasses 152 ha. (377 acres), although only the ROW portions of this span are included in the project area. The Alazán Creek meanders through the project area from the northwest to southeast. The primary concern of the project was possible



Figure 1-1. Project area on an aerial map.

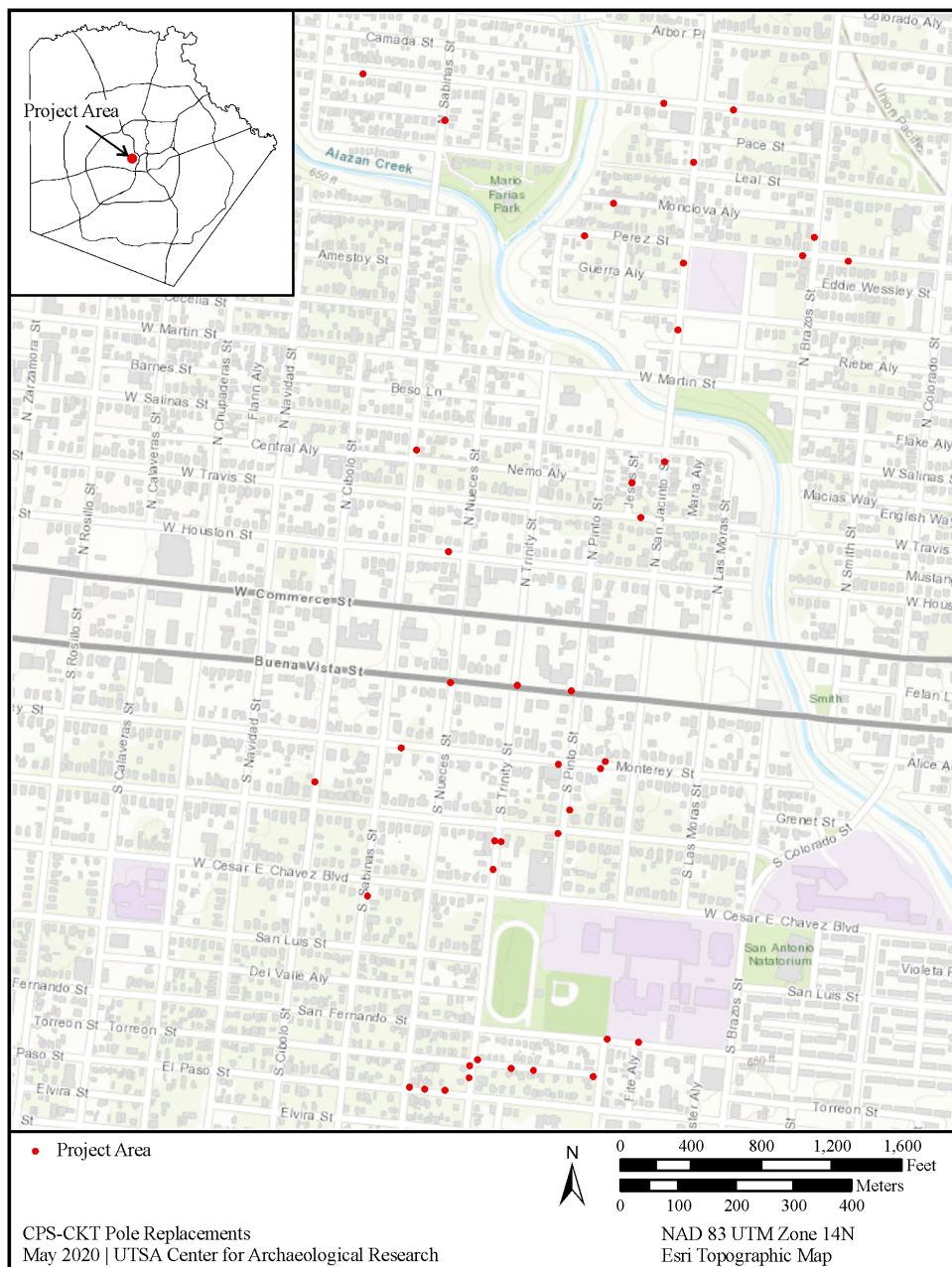


Figure 1-2. Project area on a topographic map.

cultural material associated with the Battle of Alazán Creek. Unpublished research by the City Archaeologist indicates that human remains and military artifacts thought to be associated with the battle were reported in the area by local newspapers in the early twentieth century (Bentley email April 14 2020).

Ultimately, only 20 of the 42 pole locations were monitored by CAR staff. The remaining locations were excavated by CPS without notifying the CAR (Bentley email September 28 2023). The CPS Archaeologist notified the THC that this occurred. THC determined that no action was required regarding the permit violation (Emily Dylla to Heath Bentley email December 8, 2023). No archaeological sites or cultural

features were documented within the pole locations that were monitored. Cultural material observed consisted of late historic material in disturbed contexts and modern trash. The CAR recommends no additional work in the portion of the project area that was monitored.

This report includes five chapters. Following this introduction, the second chapter provides a brief background of the environment, culture history, and previous archaeology conducted in the project area. The third chapter details the laboratory and field methods used in the completion of the project. The fourth chapter provides a discussion of the project results. The fifth chapter provides a project summary as well as the CAR's recommendations.

Chapter 2: Project Background

This chapter provides a discussion on the natural environment, culture history, and previous archaeology of the project area. It is included in order to provide context for project results.

Environment

San Antonio is positioned where the southernmost Great Plains meets the Gulf Coast. The Balcones Escarpment divides the Great Plains to the northwest and Coastal Plain to the southeast. The city is also located near a significant climate boundary, partitioning a humid-subtropical zone from an arid zone (Petersen 2001). The city's location near these significant geological and climatic boundaries results in a varied resource base. The area contains a number of reliable freshwater sources, including the San Antonio River, freshwater artesian springs, and the Edwards Aquifer. The growing season averages 270 days (Petersen 2001:22). The temperature reaches average lows of 39.2°F (4°C) in January and average highs of 96.8°F (36°C) in July (Long 2017). Though highly variable, the average annual rainfall is approximately 76.2 cm, with seasonal peaks in the spring and fall (Petersen 2001:22). The project area is located near the borders of the Balconian biotic province, which is described as an intermediate ecological area between the eastern forest and the western desert, and the Tamaulipan biotic province, which has a semi-arid climate and is dominated by thorny brush (Blair 1950). Elevations within the project area range from 198-210 m above sea level.

Soils in the western half of the project area are dominated by Houston Black clays (HsB) as well as some areas of Houston Black gravelly clays (HuC) near Alazán Creek (Figure 2-1). Houston Black clays are found on ridges of one to three percent slopes. They are moderately well drained and reach depths of more than 203 cm. Houston Black gravelly clays are found on ridges of three to five percent slopes. They are well drained and reach depths of more than 203 cm. These soils are prime farmland. In the eastern half of the project area, soils are primarily Lewisville silty clays (LvA). Lewisville silty clays are found on terraces and have zero to one percent slopes. They are well drained and reach depths of more than 203 cm. Adjacent to the Alazán Creek, some areas of Tinn and Frio (Tf) soils are found. These soils have zero to one percent slopes and are found in flood plains. They are moderately well drained and reach depths of more than 203 cm. These soils are not prime farmland (NRCS 2021). Overall the natural soils within the project area are deep clays suited for farming, with the exception of the soils within the Alazán Creek floodplain.

The primary ecological site in the project area is the Southern Blackland Prairie. Natural vegetation in the Southern Blackland Prairie ecoregion includes tallgrass species, such as big bluestem

(*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), switchgrass (*Panicum virgatum*), eastern gramagrass (*Tripsacum dactyloides*), little bluestem (*Schizachyrium scoparium*), and abundant midgrasses, a wide variety of forbs, western hackberry (*Celtis occidentalis*), live oak (*Quercus virginiana*), and elm (*Ulmus* sp.). Most of the natural vegetation in this ecoregion has been lost, first due to agricultural activities, then to urban development. Less than one percent of the native prairie environment remains within the Blackland Prairie ecoregion (NRCS 2021). Areas of Clayey Bottomland are associated with Tinn and Frio soils. They are found downslope and consist of tallgrass savannahs with a hardwood overstory component. Floodwaters may remain in these areas for over a month (NRCS 2021). The project area is currently primarily residential in nature, with some areas of mixed commercial and residential development.

The Alazán Creek watershed spans 45.3 square km, beginning near Fredericksburg Road approximately 4.4 km northwest of the project area and extending to its confluence with Apache Creek approximately 1.1 km southeast of the project area. It is classified as an ephemeral stream but is rarely dry even in drought conditions. Early descriptions of the west side creek environment describe extensive trees in the upland areas and a diverse and aquatic ecosystem within the creeks, which followed winding paths. Following a major, damaging flood event in 1946, the west side creeks, including Alazán Creek, were extensively channelized. The path of the creek was straightened, and the floodway was given a homogenous, trapezoidal shape with extensive concrete banks. This successfully mitigated flood risk but devastated the ecosystem, which had already been impacted by urbanization. Modern water quality is poor enough to classify the creek as an “impaired water body” (US Army Corps of Engineers 2014).

Culture History

This section provides a brief review of the prehistoric and historic culture history of San Antonio and the surrounding region. This history spans roughly 13,000 years according to current research, although some recent finds suggest even earlier occupations (Waters et al. 2011).

Prehistoric

The Prehistoric period in Texas spans roughly 13,000-350 BP (Bousman et al. 2004; Collins 2004). It is generally divided into the Paleoindian, Archaic, and Late Prehistoric periods. Bexar County lies near the boundary of two cultural regions often discussed by Texas archaeologists, Central and South Texas, and it has been included in reviews of both regions (see Collins

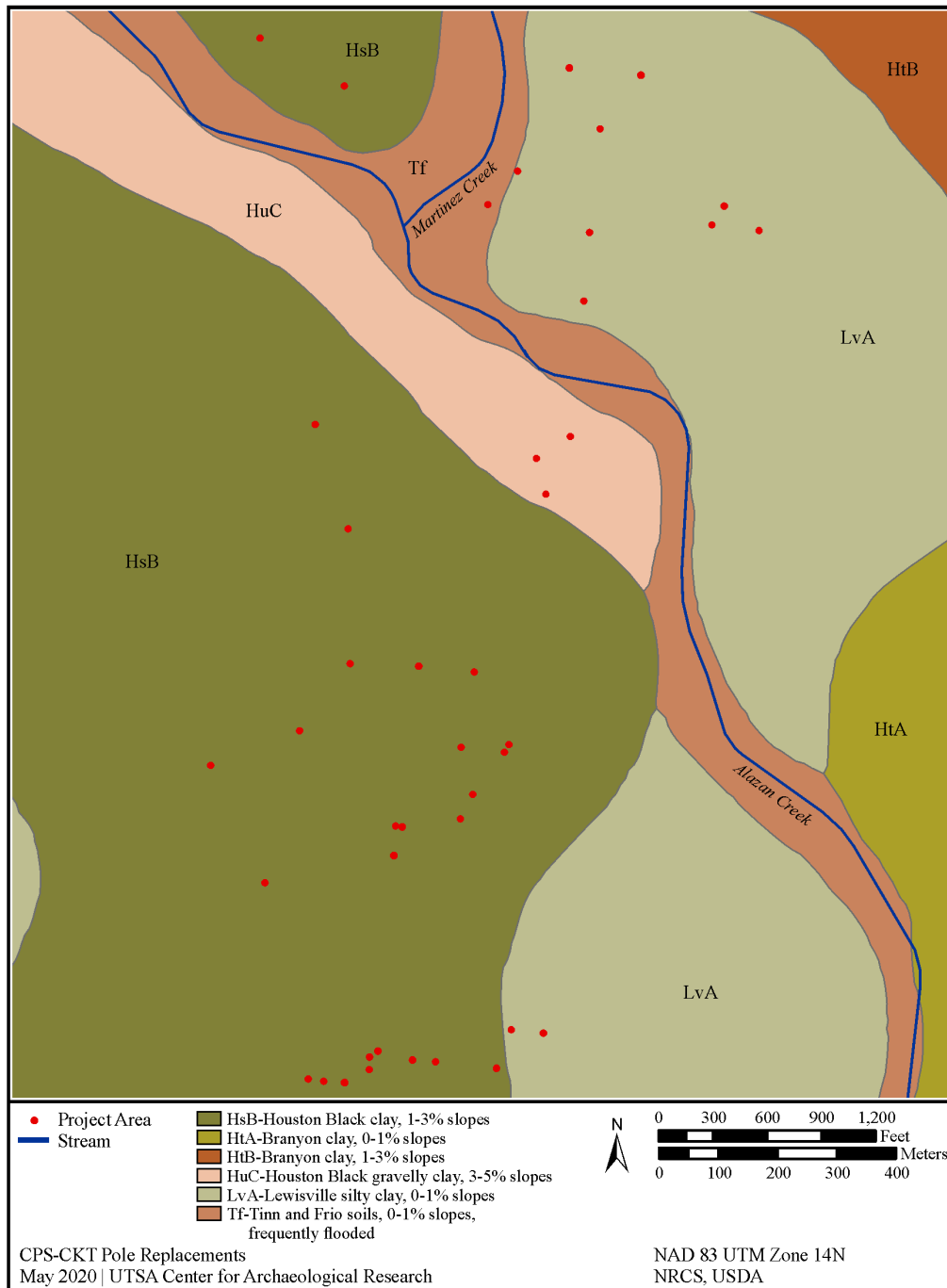


Figure 2-1. Map of soils within the project area.

2004, Hester 1980). This review primarily follows a Central Texas chronology, focusing on significant shifts such as changes to temporally diagnostic cultural material through time, but includes some discussion of South Texas as well.

Paleoindian (13,000-9,000 BP)

The Paleoindian period begins near the end of the Pleistocene epoch and beginning of the Holocene, spanning 13,000-9,000 BP (Collins 2004). The material culture of this period is

characterized by fluted points such as Folsom and Clovis in the early Paleoindian period and in the Late Paleoindian by projectile points such as Angostura and Plainview (Bousman et al. 2004). Most Paleoindian sites consist primarily of surface finds and buried contexts are rare. However, some Paleoindian sites have been documented in buried contexts, including the Lubbock Lake site (41LU1), the Wilson-Leonard site in Williamson County (41WM235), Bonfire Shelter (41VV218) and Baker Cave (41VV213) in Val Verde County, and the Richard Beene site (41BX831) in Bexar County (Bousman

et al. 2004:34). The Paleoindian components at the Gault site (41BL323) in Central Texas are stratified deposits showing evidence of repeated occupation. The Debra L. Freidkin site (41BL1239) contains evidence of human occupation in Texas underlying Clovis levels, between 13,200 and 15,500 BP (Waters et al. 2011). This suggests that human occupation of Texas began earlier than is traditionally thought.

Early Paleoindian subsistence practices are often viewed as heavily dependent on the hunting of megafauna, such as mammoth and bison, and available faunal assemblages indicate that these species played a significant role (Bousman et al. 2004; Waters et al. 2011). However, a broad range of other vertebrate and invertebrate species has also been identified at sites with faunal material present such as Lubbock Lake, Wilson-Leonard, Baker Cave (Bousman et al. 2004), and the Gault site (Waters et al. 2011). These data indicate a broader subsistence base. Bamforth (2011) argues that changes in hunting practices in the Great Plains from the Paleoindian to the Archaic period are more gradual than previously thought. Based on evidence from Wilson-Leonard, Bousman et al. (2002) suggest that the shift from Paleoindian to Archaic is marked by a broadening of the resource base in both plants and faunal resources. Mobility during the Paleoindian period is characterized as very high with populations using large home ranges. Edwards chert has been recorded from both the Folsom site in New Mexico and the Lindenmaier site in Colorado (Hofman et al. 1991), suggesting significant movement of people or materials.

Archaic Period (9000-1200 BP)

The Archaic period in Central Texas spans more than 7,500 years and is often broken into the Early, Middle, and Late Archaic periods. Material culture shifts during the Archaic period include greater diversity in lithic technology and the use of heated rock technology such as burned rock middens (Collins 2004). Burned clay features have also been identified in the region (Black 1989). Greater diversity in technology is often connected with broadening and intensification of resource use during this period (Black et al. 1997; Bousman and Quigg 2006; Collins 2004; Wack 2011).

Early Archaic

Temporally diagnostic artifacts from the Early Archaic (9000-6800 BP) include Martindale-Uvalde points and Clear Fork and Guadalupe tools (Collins 2004; Turner et al. 2011). Subsistence data for this period is scarce (Quigg et al. 2008). Collins (2004) and Quigg et al. (2008) both note that deer, small animals, and a variety of bulbs were significant subsistence species during the Early Archaic. Hyacinth bulbs were recovered from burned rock features dated to 8000 BP at Wilson-Leonard, indicating that this type of plant resource was in use during this time period and processed using heated rock technologies (Collins 1998; Quigg

et al. 2008). Large burned rock features have been dated to the Early Archaic at many sites, including Richard Beene, Wilson-Leonard, and the Sleeper site (41BC65), indicating that the processing of large quantities of plant resources may have been widespread (Quigg et al. 2008).

Weir (1976) suggests that populations during this period were small, highly mobile, loosely socio-politically structured and that subsistence practices were not specialized. However, evidence from the Buckeye Knoll (41VT98) cemetery indicates some sociopolitical inequality and possible territoriality in the region during this time period (Ricklis 2011). Sinkhole burials from this period are known from Bering Sinkhole (41KR241, Bement 1994). Bement (1994) argues that the Early Archaic depositional patterns at Bering sinkhole suggest a seasonal, ossuary interment pattern, potentially associated with highly mobile populations.

Significant sites dating to this time period include Wilson-Leonard, Richard Beene, the Sleeper site, and Hall's Cave (Collins 2004). At the Richard Beene site (41BX831) in Bexar County, Early Archaic diagnostics include Martindale points and Clear Fork tools. Burned rock features were present at most occupations, but occupations dated to the early and middle portions of the Early Archaic tend to have lower feature densities (Thoms and Clabaugh 2011). Pollen analysis indicates a gradual increase in grasslands during this period (Bousman 1998). At the beginning of this period, woodlands were present, but were replaced by grasslands by 7500 BP (Nickels and Mauldin 2001).

Middle Archaic

Temporally diagnostic artifacts from the Middle Archaic (6800-4200 BP) include Bell-Andice and Nolan-Travis points and Clear Fork tools. Heated rock technology continued to be used and large burned rock features became more frequent (Collins 2004). While some argue these features are associated with the processing of specific plant resources such as acorns (Creel 1986; Weir 1976), others argue that the wide range of forms suggests that burned rock technology was used to process a similarly wide range of plant foods (Black et al. 1997). Bison were present at the beginning of this period (Quigg et al. 2008). Weir (1976) suggests that populations during this time period increased, were sociopolitically loosely structured (Weir 1976:119), and more spatially delimited than previously. He also suggests that subsistence practices were more specialized.

Significant sites dating to this time period include the Barton site (Collins 2004) and the Landslide site (Collins 2004). At the Richard Beene site, Thoms and Clabaugh (2011) describe the Middle Archaic component as having a higher density of scattered fire-cracked rock (FCR) and the upper portion of this component as having unusually high chipped stone density. They suggest that early Middle Archaic deposits at the site may represent short-term family encampments, while later Middle

Archaic deposits may represent considerably longer-term settlements. Pollen analysis indicates that grasslands may have reached their peak during this period, at approximately 5000 BP, and that a long dry period (7000-3500 BP) took place, primarily during the Middle Archaic (Bousman 1998:210). However, there is also evidence for some climate fluctuation during this period, with brief wetter intervals (Nickels and Mauldin 2001).

Late Archaic

The Late Archaic period (4200-1200 BP) is defined by a wide diversity of projectile point styles, including Bulverde, Pedernales, Ensor, Marcos, Castroville, Marshall, and Fairland, as well as the use of distinctive lithic tools such as corner-tang knives. Heated rock technology continues to be commonly used and its presence is thought to indicate continued processing of plant resources (Collins 2004; Quigg et al. 2008).

The beginning of this period is described by Weir (1976) as more highly structured socio-politically, with increased populations, which may have been less mobile and had specialized subsistence practices. Weir characterizes the end of this period as more loosely structured socio-politically, having smaller more highly mobile populations, and unspecialized subsistence practices. Carpenter and Hartnett (2011) also suggest that groups became more highly mobile toward the end of the Archaic period based on examinations of lithic data at Fort Hood. Late Archaic components at the Richard Beene site are described as consistent with multi-family, short-term encampments. Compared to other components, this component contained the greatest density of FCR, including a very large cooking feature dated to 3090 ± 70 BP and several smaller burned rock concentrations (Thoms and Clabaugh 2011). A number of large cemetery sites date to this time period including Loma Sandia (41LK28), Hitzfelder Cave (41BX26), and Olmos Dam (41BX1) (Munoz et al. 2011).

Climate during this period appears to trend generally more towards xeric conditions with some fluctuation (Nickels and Mauldin 2001). Pollen analysis indicates a gradual increase in tree canopy cover during most of this period (Bousman 1998:207-211). However, low percentages of arboreal pollen and increases in grass pollen suggest a shift to a grassland community around 1500 BP.

Late Prehistoric (1200-350 BP)

The early Late Prehistoric is marked by a shift to bow and arrow technology, evidenced in material culture by a shift towards smaller arrow points such as Scallorn and Edwards forms (Turner et al. 2011). This shift is identifiable due to a significant change in the average neck width of projectile points. Arrow technology requires more investment and is less expendable, but increases hunting efficacy for a wider range of prey (Miller 2009). There is evidence that burned rock middens increased in use (Black et

al. 1997). Cemeteries remain in use in the area as well (Mauldin et al. 2013). The development of pottery is associated with the Toyah style interval beginning in approximately 800 BP (Collins 2004). This occurred during the latter part of the Late Prehistoric in Central Texas, which is also characterized by Perdiz arrow points. There is some debate about whether this technological shift is associated with the migration of a specific cultural group or the spread of ideas throughout groups inhabiting the region (Kenmotsu and Boyd 2012).

Subsistence during this period is thought to be focused on the hunting of bison, deer, and antelope and mobility is characterized as high (Collins 2004). Quigg and others (2008) characterize subsistence practices during this time period as more focused on large game animals and possibly the processing of bulk resources. Significant sites dating to this time period include the Toyah Bluff site (41TV441, Karbula 2003) and the Biesenbach site (41WN88, Nickels 2000). Scallorn and Perdiz points are associated temporally with a shift towards a more xeric period and are widely distributed across the state (Collins et al. 2011). Pollen analysis indicates that grassland communities existed in central Texas from 500-300 BP (Bousman 1998).

Historic Period

In Central Texas, the Historic period, which overlapped somewhat with the Late Prehistoric, began with the first documented appearance of Europeans in AD 1528. Although early interactions between Europeans and indigenous populations in the area were infrequent, the lifeways of the indigenous populations were still impacted by loss of population due to disease and the arrival of Native American groups from other regions of North America fleeing European incursions (Foster 1998; Kenmotsu and Arnott 2012).

Spanish Colonial

In 1519, following the Alonso Álvarez de Pineda voyage, Spain laid claim to the area that would become Texas but made little attempt to establish settlement (Chipman and Joseph 2010). Motivated by concerns about French colonization in Louisiana in the early 1700s and encroachment into Texas in 1685 by Robert Cavalier, Sieur de la Salle's expedition, the Spanish government began to strengthen its hold on Texas, which previously was sparsely populated by Europeans (Cruz 1988). A Spanish expedition intended to initiate contact with the Indigenous population and prevent them from establishing trade relationships with the French reached the San Pedro Springs, just north of the project area, in present-day San Antonio on April 13, 1709 (Cruz 1988).

The primary institutions Spain employed to secure its colonies were the missions, intended to assimilate the Indigenous population through religious conversion; the presidio,

which played a military defensive role; and, ultimately, the establishment of chartered town settlements (Cox 1997; de la Teja 1995). The missions and the presidios were intended to be transitory institutions, whose land and possessions would ultimately be distributed among successfully converted Indigenous families (de la Teja 1995). The Spanish Colonial *acequia* system in San Antonio was established to serve as a source of water and irrigation for the inhabitants of these institutions. San Antonio is one of the few large cities of Spanish origin that still contains traces of its original *acequia* system, which spans more than 80 km (Cox 2005).

Mission San Antonio de Valero, the first Spanish settlement established in what would become San Antonio, was founded on May 1, 1718 on the west bank of the San Antonio River south of San Pedro Springs (Habig 1968:38). The Presidio de Bexar and the Villa de Bexar were established four days later. Initially, these settlements were located near the San Pedro Springs, possibly within modern-day San Pedro Park (Meissner 2000), although firm archaeological evidence of these early settlements has not been documented. The mission was moved to the east bank of the San Antonio River about a year later and it was moved a third time to its final location following storm damage in 1724 (Habig 1968:44). The villa and presidio were relocated in 1722 (Habig 1968:38). Archaeological material associated with this second location of the presidio, including a Spanish colonial sheet midden, have been documented at site 41BX2088 (McKenzie et al. 2016). Four more missions were founded to the south along the San Antonio River between 1720 and 1731 (de la Teja 1995).

Although an early, unofficial town settlement associated with the presidio began to develop with the arrival of presidio soldiers and their families, this settlement lacked legal status (de la Teja 1991). The arrival of a group of immigrants from the Canary Islands in 1731 marked the establishment of the Villa de San Fernando (de la Teja 1995; Poyo 1991). The villa was granted water rights to the San Pedro Creek (de la Teja 1995). The early years of the settlement were marked with conflict between the villa, the missions, and the earlier settlers, particularly over land and irrigation (de la Teja 1991, 1995; Poyo 1991). From early in its history, the west side of town was called “Laredito” (de la Teja and Wheat 1991).

In 1793, the Mission Valero was secularized and the lower farms were surveyed and distributed (Cox 1997; de la Teja 1995). The mission compound subsequently served primarily a military function in the city and it was, significantly, the site of the Battle of the Alamo in 1836. The other missions were not fully secularized until 1824 when their churches and furnishings were inventoried and surrendered (Habig 1968). However, they were partially secularized in 1794 when their farmlands were surveyed and redistributed. The distribution of former mission farmlands contributed to the growth of the town (de la Teja 1995).

In the late eighteenth century, the majority of the recorded population of Texas are described as Spaniards, followed by “settled” Native Americans (Chipman and Joseph 2010). The residents of San Antonio were underprivileged in contrast to those in other areas of New Spain (de la Teja 1996). Unrest in Europe and Mexico contributed to turmoil in San Antonio, as well as increased conflict with the United States as that country sought to expand (Chipman and Joseph 2010; de la Teja 1996). After the Louisiana purchase in 1800, the United States attempted to claim Texas as part of the acquisition as well. The boundaries were not formally settled until 1819 (Campbell 2012).

The military presence in San Antonio increased due to the instability. The additional draw on available resources contributed to intensified pressures on the area’s limited economy, which inflamed the tensions (de la Teja 1996). An uprising against Spain in Texas began in 1811 and included both Mexican revolutionaries and Anglo-American forces (Chipman and Joseph 2010; de la Teja 1996). A series of battles took place near San Antonio in 1812 and 1813. This included the Battle of Alazán Creek, which was a victory for the rebels (Chipman and Joseph 2010; Marshall 2015). The battlefield is commonly thought to be near present-day West Commerce Road, but recent evaluation of contemporary accounts suggests that it may instead have been located between Alazán and Martínez Creeks (Marshall 2015). The uprising ultimately failed and the Spanish reaction was punitive, resulting in a depleted population and negatively impacted economy for decades afterwards (Chipman and Joseph 2010; Cox 1997).

Mexican Period

When Mexico gained independence from Spain in 1821, Texas became part of the state of Coahuila (Cox 1997). This resulted in a decreased role for San Antonio in state matters (de la Teja and Wheat 1991). During this period, immigration to the area from the United States increased due to the draw of cheap land and by the 1830s Anglo-American settlers outnumbered Tejanos in Texas. Despite attempts by the state to encourage it, there was little immigration from Mexico. Conflict increased with Mexico over trade rules and immigration. Some concessions, such as an exemption to the ban on enslaved labor and accommodation for the Protestant faith common among Anglo-American immigrants, were extended to the residents of Texas in an attempt to ease tensions (Campbell 2012; de la Teja and Wheat 1991; Tijerina 1996). Ultimately, Texas revolted against Mexico in 1835. Mexican General Martín Perfecto de Cos fortified the old Mission Valero against the Texans, including diverting a branch of the *acequia* to flow outside the Mission compound (Cox 1997). The Texans defeated General Cos, but they were defeated themselves by Santa Anna after 13-day siege in 1836 at what became known as the Battle of the Alamo (Cox 1997). A number of sites downtown include features associated with this military activity, including a trench feature associated with General Cos’

occupation of Main Plaza at 41BX1752 (Hanson 2016) and a Mexican fortification trench associated with the Siege of Bexar at 41BX2170 (Kemp et al. 2019). A smaller skirmish in 1835, the Grass Fight, occurred near or within the project area (Barr 2021; Campbell 2012). In the fall of 1836, Santa Anna was ultimately defeated and Texas became a Republic (Cox 1997).

Texas Republic, Statehood, and Civil War

During the century that followed Texas's break with Mexico, San Antonio saw considerable growth despite the impact of numerous conflicts, including the Mexican War and the Civil War (Cox 1997). In December of 1837, San Antonio was incorporated as one of the early acts of the newly established Republic of Texas. The state became increasingly urbanized (Miller and Johnson 1990). The Tejano population were increasingly marginalized and conflict and distrust of them had increased during the war against Mexico, despite their participation in the fight for independence (Hardin 1996; Poyo 1996; Tijerina 1996). In 1840, census records indicate that at this point Tejanos owned 85 percent of town lots, but by 1850, records show Tejanos claiming nine percent of real estate and the population was increasingly concentrated west of downtown (Marquez et al. 2007).

A number of epidemics impacted the city's population during the early to mid-1800s, spread in part by pollution of the city's *acequia* system. The city attempted to combat the issue by establishing standards of cleanliness, but the issue remained ongoing (Cox 2005). In 1846, after a turbulent period in which Texas saw conflict with both Mexico, which did not accept the new Republic's independence, and local Native American groups, Texas became part of the United States. The state's annexation brought about war between Mexico and the United States, which initially included conflict in the Rio Grande Valley, but for the most part took place outside Texas. The war ended in 1848. In the 1840s and 1850s, conflict with Native American groups was also common, particularly in west Texas (Campbell 2012). The state's population saw significant increases following statehood, but restricted transportation ability within and outside of the state limited economic development. Railroad development was authorized by the legislature in 1854 but construction was slow. The economy remained overwhelmingly agricultural. Education in the state was limited to private enterprise (Campbell 2012).

Texas seceded from the United States and joined the Confederacy in 1861 as part of the conflict between northern and southern states over the practice of slavery (Campbell 2012). Bexar County voted in favor of secession (TSHA 2018). Texas played a supply role during the Civil War (Campbell 2012; Wooster 2021). There was little fighting within Texas itself, with the exception of the coast, which was blockaded (Campbell 2012). In 1865, Texas surrendered to the Union and rejoined the United States (Wooster 2021). The practice of slavery in the United

States ended with the Confederacy and June 19 became known as Juneteenth in celebration of Emancipation (Campbell 2012).

Post Civil War

The arrival of the railroad to the city in 1877 resulted in significant growth in San Antonio (Cox 1997). Railroad mileage had actually decreased during the Civil War, but by 1880, thousands of miles of track had been built (Campbell 2012). Near the project area, the arrival of the International-Great Northern Railroad to the area in 1881 resulted in considerable development (COSA 2021; Thomas and McKenzie 2019). The increased connection within and outside of Texas promoted economic growth (Campbell 2012; Miller and Johnson 1990). However, San Antonio was less affected by industrialization than other major Texas cities (Miller and Johnson 1990). The growth in cash crops, rather than a focus on subsistence agriculture, had a negative effect on small farmers despite an overall increase in productivity (Campbell 2012). The late 1800s saw infrastructure and economic development throughout the city, including water, electric, and gas utilities (Heusinger 1951). Public education in Texas was established in 1870 (Campbell 2012). The city also attempted to update the *acequia* system with the construction of new ditches, including the construction of the Alazán ditch (41BX620) in 1875. Construction of this new ditch necessitated modifications to the existing *acequia* system (Thomas and McKenzie 2019). The ditch functioned poorly from the beginning due to faulty engineering of the slope and substandard construction (Cox 2005; Thomas and McKenzie 2019). The adoption of the new water works system in 1878 transformed the *acequia* system into, primarily, a drainage system, and water flow was reduced in the 1890s due to the increased drilling of wells. As a result of these infrastructural changes in the city, as well as ongoing cleanliness issues, the urban *acequias* were closed by 1912 (Cox 2005).

As the city grew, San Antonio was increasingly differentiated socioeconomically (Sanders 1990). The west side, where the project area is located, was predominately Hispanic and included many recent immigrants. Kemp (2019) and Zapata (2023) provide detailed background of the area. Around 1900, immigration from Mexico increased due to unrest in that country (Campbell 2012). Many immigrants ended up San Antonio where neighborhoods had become increasingly segregated beginning in the 1860s (Campbell 2012; Johnson 1990; Marquez et al. 2007). Growth in Texas and San Antonio increased during WWI, partially due to military activity and spending during that time (Campbell 2012; Freeman 1994; Heusinger 1951). A major flood in 1921 caused extensive damage and loss of life along the San Pedro and Alazán Creeks, ultimately leading to the construction of Olmos Dam (41BX1) for flood control (Heusinger 1951). During the Great Depression however, beginning in 1929, immigration to Texas slowed and poverty increased, although Texas was not as severely impacted as some other states (Campbell 2012).

Mexican Americans were particularly affected. A visitor described conditions on the predominately Hispanic west side as “some of the worst in the United States” (Sanders 1990: 156), due to lack of infrastructure such as running water, paved roads, and sewer systems, despite the development of those services elsewhere in the city half a century earlier. *Jacales* (mud, clay, and grass structures) and adobe structures in these parts of San Antonio persisted well into the early twentieth century (De León 1982:114). Menger (1913:269), in his observations on the city of San Antonio, describes “large rows of Mexican dwellings” along the San Pedro Creek and Alazán Creek. Various New Deal programs offered support for struggling Texans and also served to improve public works such as parks (Campbell 2012). In 1930, San Antonio dropped to the third largest city in Texas, behind Dallas and Houston (Miller and Johnson 1990). WWII brought significant activity and growth to San Antonio and Texas, as the state became the largest military training ground in the world (Campbell 2012; Freeman 1994). Municipal construction projects halted during the war (Heusinger 1951). Ultimately, the increased growth contributed significantly to the state’s recovery from the Great Depression. After the war, industrialization of the economy and urbanization increased (Campbell 2012). However, inequality persisted and infrastructure development did not keep pace with growth in San Antonio, where in underprivileged areas many streets remained unpaved and many areas, including the west side, still lacked sewer service in 1951 (Sanders 1990).

Previous Archaeology

A review of the Texas Archaeological Sites Atlas, maintained by the THC, revealed seven previously recorded archaeological sites within 0.5 km of the project area (Table 2-1, Figure 2-2). All are historic in nature, predominately dating to the twentieth century.

Site 41BX511 consists of a historic artifact scatter that included ceramics, nails, and glass located about 123 m southeast of the project area. It was recorded during a survey conducted by the CAR for the Avenida Guadalupe project. Recent revisits suggest the site has been mostly obliterated by commercial development (THC 2021). The site is currently the location of the Avenida Guadalupe association, a neighborhood-based organization devoted to revitalization and economic development (Avenida

Guadalupe Organization 2021). The Plaza Guadalupe, located on the property, is an important space for neighborhood events.

Site 41BX620, the Alazán Acequia, was previously recorded about 326 m to the east of the project area. The site was first formally recorded by the CAR in 1983 during the Vista Verde project west of Frio Street (Labadie 1987, THC 2021), although the irrigation channel’s existence was known from archival sources previously and a portion had been uncovered in San Pedro Park (Fox 1978). The site has been encountered during multiple archaeological projects (Dayton et al. 2014; Nickels and Cox 1996; Thomas and McKenzie 2019; Ward 2014) and has been found eligible for the NRHP (THC 2021).

Site 41BX2226 is a twentieth century site recorded by Pape-Dawson during an archaeological survey in 2018 (Moore and Galindo 2018; THC 2021). The site was defined by a quantity of late historic artifacts recovered from shovel testing, as well as supporting archival work. The archival records, consistent with the artifacts recovered, suggest the site served primarily as a residence from approximately 1919 to 1934. The structure no longer stands. It is located approximately 320 m north of the project area. The site was recommended as ineligible for the National Register of Historic Places (NRHP; Moore and Galindo 2018).

Site 41BX2227 is a twentieth century site recorded by Pape-Dawson in 2018 during the same survey (THC 2021; Moore and Galindo 2018). The site is located within the northern portion of the project area. The site was defined by a quantity of late historic artifacts recovered from shovel testing, as well as supporting archival work. The archival records, consistent with the artifacts recovered, suggest the site served as a residence from approximately 1911 to 1960. The structures no longer stand. The site was recommended as ineligible for the NRHP (Moore and Galindo 2018).

Site 41BX2343 was recorded during a survey conducted by Terracon in 2020 (THC 2021; Pagano and Yelacic 2020). The site spans 1.89 acres of currently vacant lots located southeast of the project area. Concrete foundations were recorded on the surface. Twentieth century trash, including glass, white earthenware, faunal bone, and metal were encountered on the

Table 2-1. Archaeological Sites within 0.5km of the Project Area

Site	Time Period	Site Type
41BX511	Historic	Historic artifact scatter
41BX620	20th century	Alazán Acequia
41BX2226	20th century	Historic artifact scatter
41BX2227	20th century	Historic artifact scatter
41BX2343	20th century	Historic artifact scatter, foundations
41BX2433	Late 19th-early 20th century	Trash midden
41BX2434	20th century	Midden associated with incinerator

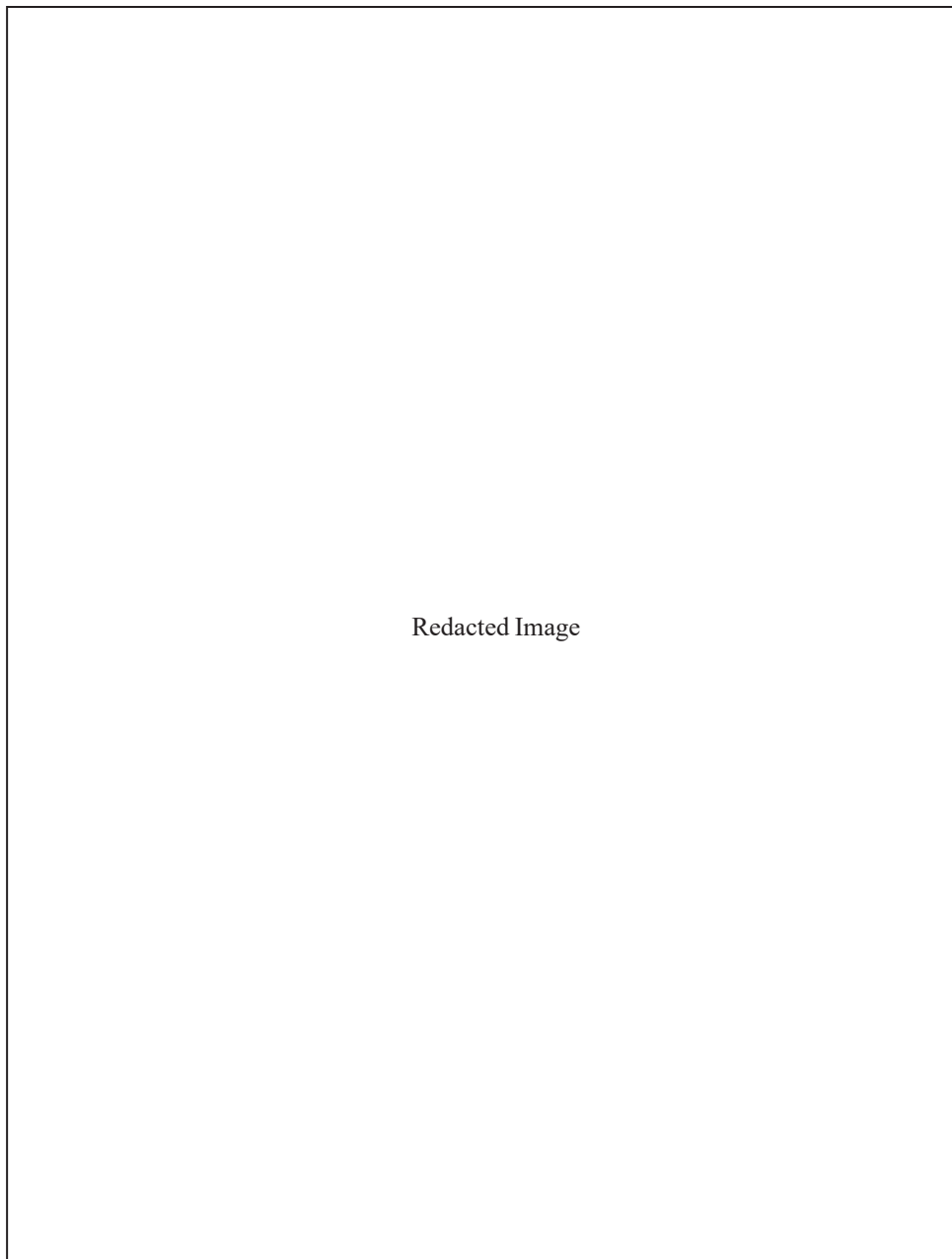


Figure 2-2. Previously recorded archaeological sites and historic resources within 0.5 km of the project area.

surface, in shovel tests, and in backhoe trenches. The site was found to be not eligible for the NRHP (THC 2021).

Sites 41BX2433 and 41BX2434 were recorded by the CAR during monitoring for the Alazán Creek Trail System project (Zapata 2023). Site 41BX2433 is a domestic trash midden dating to the early twentieth century, associated with the local neighborhood. The site consists of ashy midden deposits containing household trash, including ceramics, glass, and personal items. The site was recommended as potentially eligible for listing in the NRHP and designation as a State Antiquities Landmark (SAL) due to its potential to contribute

knowledge of the early twentieth century West Side community. Site 41BX2434 was an 84 m long by 9 m wide exposed section of a midden associated with a twentieth century incinerator plant. The site was recorded in a cut containing dark, ashy soils and dense deposits of historic material, including glass bottles, ceramics, metal, and industrial items. The portion of site recorded during monitoring was recommended as not eligible for the NRHP or designation as a SAL (Zapata 2023).

In 2016, SWCA conducted a monitoring investigation for CPS that included the northern part of the project area (Ward 2017). The spoils of excavations for the installation of three poles was

examined after the fact. Only one excavation occurred within the project area. Nondiagnostic historic and prehistoric material were observed. The other two pole locations, located north of the project area, contained no historic material, although one contained a dense concentration of modern trash and construction debris. None of the materials observed at any of the locations was found to be culturally significant and no new archaeological sites were recorded.

A review of historic markers, historic trails, and NRHP properties on the Atlas within the project area uncovered four locations (THC 2021). Two historic markers, one for the Battle of Alazán Creek located at 2300 Commerce and another for the Grass Fight located at 1514 W. Cesar Chavez Boulevard, are located within the project area. The Grass Fight was a battle that took place in the area in 1835 just prior to the Siege of

Bexar (Barr 2021). The battle is so-named because the Texians believed the column they attacked may have been transporting the soldiers' pay. However, the cargo it was transporting was forage for their horses (Barr 2021; Campbell 2012). Prospect Hill Missionary Church, an NRHP property, is located at 1601 Buena Vista. It was constructed in 1911 (NPS 2021a). It is the only example of a Beaux Arts style church in San Antonio (TSPP 2021). The El Camino Real de los Tejas National Historic Trail runs roughly east to west through the southern portion of the project area (THC 2021). The trail, which extended from Mexico to Louisiana, was the primary overland route from the Rio Grande to the Red River valley during the Spanish Colonial period. The road facilitated early population establishment in the area as well as linking physically distant parts of the Spanish empire. It fell into disuse after Texas became part of the United States (NPS 2021b).

This page intentionally left blank.

Chapter 3: Methodology

This chapter details the field and laboratory methods used by the CAR during the completion of this project. This discussion includes details of excavations, documentation, laboratory processing, and curation standards.

Field Methods

The monitored CPS excavations consisted primarily of mechanical boring of holes 51-76 cm wide to a depth of 2.0-2.7 m for the installation of new CPS poles. This method did not allow the archaeologist to view the excavation until boring was completed, which limited the archeologist's ability to prevent destruction of any resources encountered. The mechanical bore moved through solid materials such as metal and stone easily. The archaeologist was able to view the soil profile visible in the hole as well as examine the backdirt produced after excavation was completed. In cases where proximity to utilities or tight spaces made boring unfeasible, holes were hand-excavated using long shovels by a separate crew. CAR also monitored these excavations, which provided more opportunity for CAR archaeologists to examine deposits while excavations were in progress. After excavation was complete, the holes were covered and left for future pole installation. The CAR did not monitor installation of the poles.

The CAR monitor maintained a standard form, consisting of a daily log of activities. All activities observed were documented in this log and supported by digital data, including Trimble GPS observations and photographs. A lab-based Research Data Analyst (GIS) downloaded and managed the GPS data during the course of fieldwork. Monitors maintained a photographic log and downloaded and archived photographic data. No artifacts were collected during the course of monitoring.

Laboratory Methods

Throughout the project, the analysis and organization of records and daily logs was ongoing. All records generated during the project were prepared in accordance with Federal Regulations 36 CFR Part 79 and THC requirements for State Held-in-Trust collections. Field forms were printed on acid-free paper and completed with pencil. All field notes, forms, photographs, and drawings were placed in labeled archival folders. Digital photographs were printed on acid-free paper. Finally, following completion of the monitoring, all project-related materials, including the final report, were permanently stored at the CAR's curation facility under accession number 2790.

This page intentionally left blank.

Chapter 4: Results

CAR staff conducted archaeological monitoring of excavations for the installation of new CPS poles within the project area beginning August 19, 2020 and ending April 29, 2021. The project area consists of 42 pole locations west of downtown San Antonio, located in an area roughly bordered by Ruiz Street on the north, El Paso Street on the south, Navidad Street on the west, and Colorado Street on the east. However, only 20 of these pole locations were monitored (Figure 4-1). After consultation with

CPS, it was determined that the remainder of the pole locations, including locations in the northern part of the project area in the vicinity of Alazan Creek, as well as all locations in the far southern part of the project area, were completed without a monitor (Bentley email September 28 2023). The CPS Archaeologist notified the THC that this occurred. THC determined that no action was required regarding the permit violation (Emily Dylla to Heath Bentley email December 8, 2023).

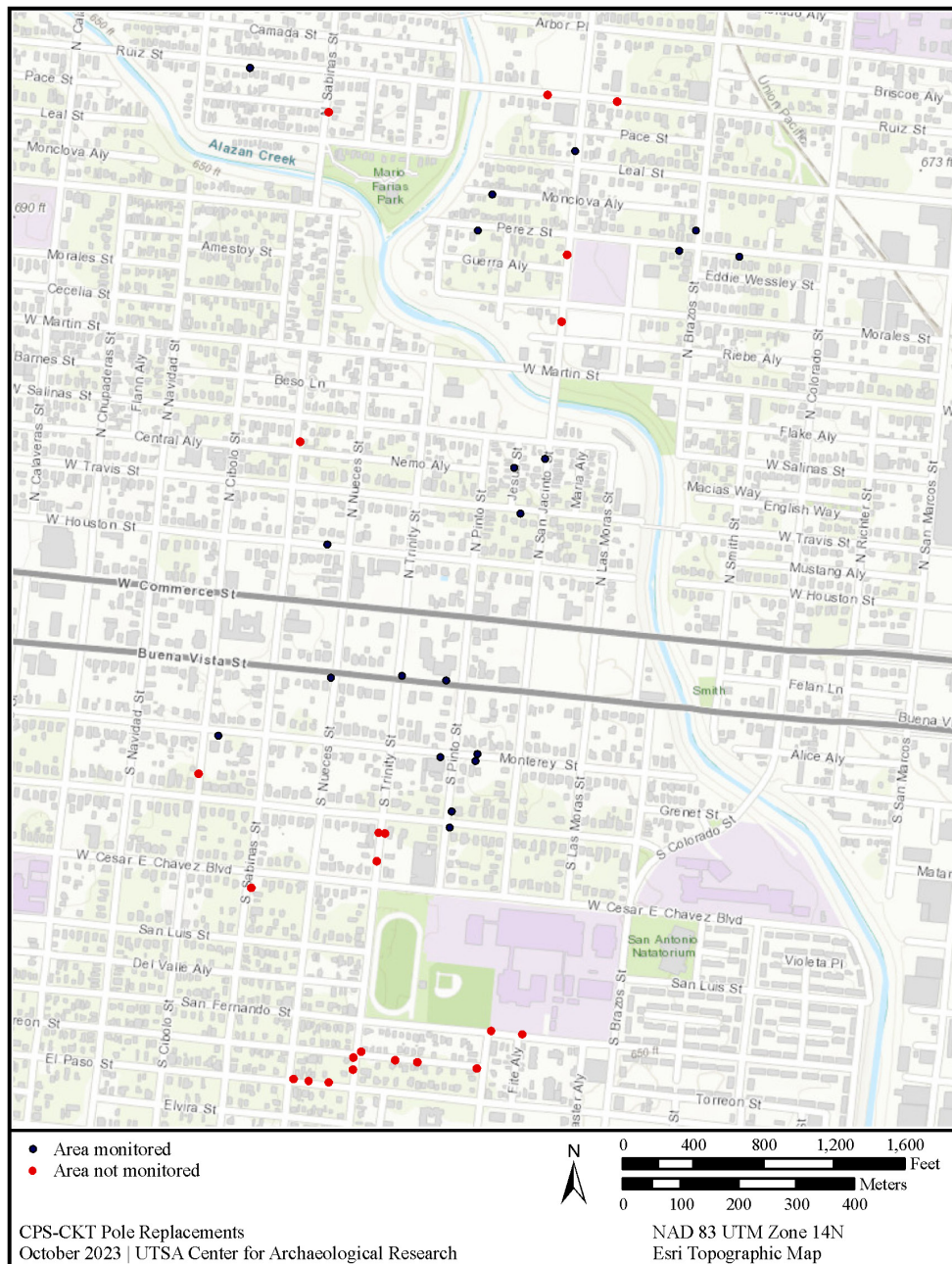


Figure 4-1. Map of pole holes monitored (blue) and pole holes completed without a monitor (red).

Within the pole locations that were monitored, no archaeological sites or cultural features were recorded. The only cultural material observed consisted of late historic material in disturbed contexts and modern trash. No artifacts were collected. Extensive disturbance was noted in the majority of excavations monitored. Pole excavations measured 30-61 cm in width and 2.1-2.9 m in depth. The use of mechanical boring in most excavations limited the ability of the archaeologist to examine deposits until excavation was complete. Excavations took place in primarily residential areas within the COSA ROW.

North of Alazàn Creek

Seven pole excavations were monitored in the portion of the project area north of the Alazàn Creek; five were excavated without a monitor (see Figure 4-1). No cultural materials were encountered in the poles at 1034 Ruiz, 1212 Perez, 276 Monclova, and 966 Perez, with the exception of ceramic sewer pipe fragments noted at 1034 Ruiz. At 966 Perez, an active sewer pipe was broken. In most areas, gray clumpy clays were encountered near the surface, with increasing gravels and cobbles with lighter soils at greater depths. Within the two locations along Perez near the Brazos intersection, modern trash and mottled soils were observed. At 276 Monclava, silty brown soils with limestone pebbles were found above an abandoned utility pipe, with whitish clays and limestone cobbles below. Two holes, one in Monclava Alley and another at 1212 Perez (Figure 4-2), were directly across the creek from 41BX2227. A

hole excavated near San Jacinto and Leal contained no cultural material to a depth of 2.9 m (9.5 ft).

South and West of Alazàn Creek, North of Commerce

Four pole excavations were monitored within the project area south of Alazàn creek and north of Commerce Street; one location near the intersection of North Sabinas Street and Central Alley was completed without an archaeological monitor (see Figure 4-1). In this area, two holes, in Jesus Alley and at Houston and Nueces, were excavated by hand. In Jesus Alley (Figure 4-3), modern material including metal hooks and clear glass, as well as faunal bone were observed from 0-30 cm. From 30-61 cm, coal, modern trash, and a utility line were observed. A burned core was observed at approximately 1.8 m below surface. The limited cultural material observed did not meet the CAR's definition of an archaeological site. Soils were predominately dark clumpy clays. Near Jesus Alley and Travis, extensive cobbles were documented. At Salinas and San Jacinto, FCR and flat glass were documented near the surface; no other materials were recorded. At Houston and Nueces, no cultural material was observed with the exception of a fragment of 7-Up green glass and brick fragments at 1.5 m. Cement was encountered at 0.6-1.5 m, and utilities were encountered at 1.2-1.5 m, including a gas line which was inadvertently broken. No cultural material was observed below this depth. Soils were predominately heavily mottled clays with some roots.



Figure 4-2. Pole hole excavated at 1212 Perez. Note clumpy clays near the surface, sand deposits near the bottom.



Figure 4-3. Pole hole excavated in Jesus Alley. Note sand fill in west wall.

South of Commerce, North of San Fernando

Nine holes were excavated in this portion of the project area; five were excavated without a monitor (see Figure 4-1). Two holes, located across from each other at 1614 and 1619 Monterey, were excavated by hand. Both excavations showed evidence of prior disturbance by utilities. At 1619 Monterey (Figure 4-4), a small quantity of historic material, including metal, aqua glass, and faunal bone was encountered at 1.2 m. The quantity of this material was insufficient to meet CAR's definition of an archaeological site. At 1614 Monterey, large cobbles extended from 0.5-2.1 m. Possible concrete was encountered at 0.9 m,

necessitating the use of a jackhammer. Two additional holes were excavated along Monterey Street, near the Pinto Street intersection and the Cibolo Street intersection. These holes also contained no cultural material and extended to 2.9 m.

Three holes were excavated along Buena Vista, at the Nueces intersection, the Trinity intersection, and the Pinto St. intersection. No cultural material was recorded at these intersections and all boreholes encountered dense cobbles. Two holes were excavated to the south near the Pinto Street and Saunders Avenue intersection, one near 1623 Pinto and the other near 1624 Pinto. Neither of these holes, which reached 2.9 m below surface, contained cultural material.



Figure 4-4. Pole hole excavated at 1619 Monterey; note copper pipe and utility trench fill.

On or South of San Fernando

Eleven holes were located in this area, the southernmost portion of the project area (see Figure 4-1). After consulting with the CPS Archaeologist, CAR was informed that all 11 pole holes in this area were excavated without a monitor present.

Summary

CAR staff monitored 20 of 42 pole locations within the project area. The remainder were excavated without a monitor present. Within the holes monitored, the majority showed evidence of extensive disturbance, including deeply buried utilities. Small

quantities of non-diagnostic late historic material were observed in disturbed contexts, including glass, metal, and faunal bone, but no area had sufficient density to be designated as an archaeological site. A burned core was observed approximately 1.8 m below the surface in the pole location adjacent to Jesus Alley. The majority of holes included small quantities of modern trash as well.

Overall, cultural material within the project area was sparse. No previously unrecorded archaeological sites were documented, and no evidence of intact cultural deposits, cultural features, or temporally diagnostic artifacts was observed. CAR recommends no additional work in the project area.

Chapter 5: Summary and Recommendations

Intermittently from August 19, 2020 to April 29, 2021, the CAR monitored 20 excavations for the installation of new CPS poles west of downtown San Antonio. After consultation with CPS, CAR was informed that the remainder of the 42 pole locations had been excavated without an archaeological monitor. The CPS Archaeologist informed the THC that this occurred. THC determined that no action was required regarding the permit violation. The broad project area encompassed 152 ha. (377 acres) south of Ruiz, north of El Paso, west of Colorado, and east of Navidad, although only the ROW portions of this span were included in the project area. Potential cultural resources located in the area included deposits related to the Battle of Alazàn Creek. Additionally, a number of historic

archaeological sites have been recorded in the area, including the Alazàn Ditch to the east.

Within the 20 pole locations monitored, deposits were extensively disturbed, primarily due to existing buried utilities. Cultural material observed consisted of a small quantity of late historic material in disturbed context, modern trash, and a single deeply buried lithic core. No cultural features or intact cultural deposits were observed. No additional work is recommended within the portion of the project area that was monitored. Due to a lack of data, CAR is unable to provide recommendations concerning the portions of the project area where monitoring did not take place.

This page intentionally left blank.

References Cited:

Avenida Guadalupe Association

2021 About Us. Electronic document, <https://avenida.org/about-us-2/>, accessed February 23, 2021.

Bamforth, D.B.

2011 Origin Stories: Archaeological Evidence, and Postcloveis Paleoindian Bison Hunting on the Great Plains. *American Antiquity* 76(1):24-40.

Barr, A.

2021 Grass Fight. Texas State Historical Association. Handbook of Texas Online. Electronic document, <https://www.tshaonline.org/handbook/entries/grass-fight>, accessed February 22, 2021.

Bement, L.C.

1994 *Hunter-Gatherer Mortuary Practices During the Central Texas Archaic*. University of Texas Press, Austin.

Black, S.L.

1989 Central Texas Plateau Prairie. In *From the Gulf to the Rio Grande: Human Adaptation in Central, South, and Lower Pecos Texas*, by Hester, T., Black, S.L., Steele, D.G., Olive, B.W., and Fox, A.A. Center for Archaeological Research, The University of Texas at San Antonio, Texas A&M University, and the Arkansas Archeological Survey.

Black, S.L., L.W. Ellis, D.G. Creel, and G.T. Goode

1997 *Hot Rock Cooking on the Greater Edwards Plateau: Four Burned Rock Midden Sites in West Central Texas*. Studies in Archeology 22. Texas Archeological Research Laboratory, the University of Texas at Austin. Archeology Studies Program, Report 2. Texas Department of Transportation Environmental Affairs Department.

Blair, W.F.

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

Bousman, C.B.

1998 Paleoenvironmental Change in Central Texas: The Palynological Evidence. *Plains Anthropologist* 43(164):201-219.

Bousman, C.B., M.B. Collins, P. Goldberg, T. Stafford, J. Guy, B.W. Baker, D.G. Steele, M. Kay, A. Kerr, G. Fredlund, P. Dering, V. Holliday, D. Wilson, W. Gose, S. Dial, P. Takac, R. Balinsky, M. Masson, and J.F. Powell

2002 The Paleoindian-Archaic transition in North America: new evidence from Texas. *Antiquity* 76: 980-990.

Bousman, C.B., B.W. Baker, B.W., and A.C. Kerr

2004 Paleoindian Archaeology in Texas. In *The Prehistory of Texas*, edited by T.K. Perttula, pp. 205-265. Texas A&M University Press, College Station.

Bousman, C.B. and Quigg, M.

2006 Stable Carbon Isotopes from Archaic Human Remains in the Chihuahuan Desert and Central Texas. *Plains Anthropologist* 51(198):123-140.

Campbell, R.B.

2012 *Gone to Texas: A History of the Lone Star State*. Oxford University Press, New York.

Carpenter, S., and C. Hartnett

2011 Archaic Macroeconomic Spheres: A Case Study from Fort Hood, Central Texas. *Bulletin of the Texas Archaeological Society* 82:223-251.

Chipman, D.E., and H.D. Joseph

2010 *Spanish Texas, 1519-1821*. Rev. ed. University of Texas Press, Austin.

City of San Antonio (COSA)

- 2021 The Railroad Era and Industrial Development. Electronic document, <https://www.sanantonio.gov/Mission-Trails/Prehistory-History/History-of-San-Antonio/Railroad-Era-and-Industrial-Development/Railroad-Era-and-Industrial-Development-Narrative>, accessed February 23, 2021.

Collins, M.B.

- 1998 *Wilson-Leonard: An 11,000-Year Record of Hunter-Gatherers in Central Texas*. Studies in Archeology 13. Texas Archeological Research Laboratory, University of Texas, Austin.
- 2004 Archeology in Central Texas. In *The Prehistory of Texas*, edited by T.K. Pertulla, pp. 205-265. Texas A&M University Press, College Station.

Collins, M.B., D.M. Yelacic, and C.B. Bousman

- 2011 "Realms," a Look at Paleoclimate and Projectile Points in Texas. *Bulletin of the Texas Archaeological Society* 82:3-1.

Cox, I.W.

- 1997 The Growth of San Antonio. In *Archaeology at the Alamodome: Investigations of a San Antonio Neighborhood in Transition. Volume 1, Historical, Architectural, and Oral History Research*, edited by A.A. Fox, M. Renner, and R.J. Hard, pp. 8-44. Archaeological Survey Report, No. 236. Center for Archaeological Research, The University of Texas at San Antonio.
- 2005 *The Spanish Acequias of San Antonio*. Maverick Publishing Company, San Antonio.

Creel, D.G.

- 1986 Study of Prehistoric Burned Rock Middens in West Central Texas. PhD Dissertation, Department of Anthropology, University of Arizona, Tuscon.

Cruz, G.R.

- 1988 *Let There Be Towns: Spanish Municipal Origins in the American Southwest, 1610-1810*. Texas A&M University Press, College Station.

Dayton, C., M. Green, and H. Rush

- 2014 *Martin/Medina Maintenance Facility Archaeological Survey, San Antonio, Bexar County, Texas*. CMEC-AR-072, Cox/McClain Environmental Consulting, San Antonio, Texas.

de la Teja, J.F.

- 1991 Forgotten Founders: The Military Settlers of Eighteenth Century San Antonio de Bexar. In *Tejano Origins in Eighteenth-Century San Antonio*, edited by G.E. Poyo and G.M. Hinajosa, pp. 27-41. University of Texas Press, Austin.
- 1995 *San Antonio de Bexar: A Community on New Spain's Northern Frontier*. University of New Mexico Press, Albuquerque.
- 1996 *Rebellion on the Frontier. Tejano Journey 1770-1850*, edited by G.E. Poyo, pp.15-33. University of Texas Press, Austin.

de la Teja, J.F., and J. Wheat

- 1991 Bexar: Profile of a Tejano Community, 1820-1832. In *Tejano Origins in Eighteenth-Century San Antonio*, edited by G.E. Poyo and G.M. Hinajosa, pp. 1-27. University of Texas Press, Austin.

De Leon, A.

- 1982 *The Tejano Community, 1836-1900*. Southern Methodist University Press, Dallas.

Foster, W.C.

- 1998 *The La Salle Expedition to Texas: The Journal of Henri Joutel 1664-1687*. Texas State Historical Association, Austin.

Fox, A.

- 1978 *Archaeological Investigations of Portions of the San Pedro and Alazàn Acequias in San Antonio, Texas*. Archaeological Survey Report, No. 49. Center for Archaeological Research, The University of Texas at San Antonio.

Freeman, M.D.

1994 *Camp Bullis: A Military Training Facility in the Southern Department and the Eighth Corps Area*. Komatsu/Rangel Inc., Fort Worth.

Habig, M.A.

1968 *The Alamo Chain of Missions: A History of San Antonio's Five Old Missions*. Franciscan Herald Press, Publishers of Franciscan Literature, Chicago.

Hanson, C.

2016 Archaeological Investigations for the Main Plaza Redevelopment Project, San Antonio, Bexar County, Texas. Atkins, Austin.

Hardin, S.L.

1996 Efficient in the Cause. In *Tejano Journey 1770-1850*, edited by G.E. Poyo, pp. 49-73. University of Texas Press, Austin.

Hester, T.R.

1980 11,000 Years of South Texas Prehistory. In *Digging into South Texas Prehistory*, pp. 131-164. Corona Publishing San Antonio.

Heusinger, E.W.

1951 *A Chronology of Events in San Antonio: Being a Concise History of the City Year by Year, From the Beginning of its Establishment to the End of the First Half of the Twentieth Century*. Standard Printing, San Antonio.

Hofman, J.L., L.C. Todd and M.B. Collins.

1991 Identification of Central Texas Edwards Chert at the Folsom and Lindenmeier Sites. *Plains Anthropologist* 36 (137):297-308.

Johnson, D.R.

1990 Frugal and Sparing: Interest Groups, Politics, and City Building in San Antonio, 1870-85. In *Urban Texas: Politics and Development*, edited by C. Miller and H.T. Sanders, pp. 33-58.

Karbula, J.W.

2003 The Toyah Bluff Site (41VT441)-Changing Notions of Late Prehistoric Subsistence in the Blackland Prairie Along the Eastern Edge of the Edwards Plateau, Travis County, Texas. *Bulletin of the Texas Archaeological Society* 74:55-81.

Kemp, L.

2019 *Archaeological Monitoring along South Colorado Street near Downtown San Antonio, Bexar County, Texas*. Archaeological Report, No. 472. Center for Archaeological Research, The University of Texas at San Antonio.

Kemp, L., J.E. Zapata, C.M.M. McKenzie, M. Pfeiffer, and R. Curilla

2019 *Archaeological Monitoring of the Downtown Street Reconstruction Project at North Main Avenue and Soledad Street and the State Antiquities Landmark Testing of 41BX2164 and 41BX2170, San Antonio, Bexar County, Texas*. Archaeological Report, No. 462. Center for Archaeological Research, The University of Texas at San Antonio.

Kenmotsu, N.A., and J.W. Arnn

2012 The Toyah Phase and the Ethnohistoric Record: A Case for Population Aggregation. In *The Toyah Phase of Central Texas: Late Prehistoric Economic and Social Processes*, edited by N.A. Kenmotsu and D.K. Boyd, pp. 19-43. Texas A&M University Press, College Station.

Kenmotsu, N.A. and D.K. Boyd

2012 The Toyah Phase in Texas: An Introduction and Retrospective. In *The Toyah Phase of Central Texas: Late Prehistoric Economic and Social Processes*, edited by N.A. Kenmotsu, pp. 1-18. Texas A&M University Press, College Station.

Labadie, J.H.

1987 *An Archaeological and Historical Assessment of the Vista Verde South Project, San Antonio, Texas*. Archaeological Survey Report No. 156. Center for Archaeological Research, the University of Texas at San Antonio.

Long, C.

2017 Bexar County. Handbook of Texas Online. Texas State Historical Association. Electronic document, <https://tshaonline.org/handbook/online/articles/hcb07>, accessed February 9, 2020.

- Marquez, R.R., L. Mendoza, and S. Blanchard
2007 Neighborhood Formation on the West Side of San Antonio, Texas. *Latino Studies* 5:288-316.
- Marshall, R.P.
2015 The Battle of the Alazán: First Texas Republic Victorious. *Southwestern Historical Quarterly* 119:44-57.
- Mauldin, R.P., R.J. Hard, C.M. Munoz, J.L.Z. Rice, K. Verostick, D.R. Potter, and N. Dollar
2013 Carbon and Nitrogen Stable Isotope Analysis of Hunter-Gatherers from the Coleman Site, a Late Prehistoric Cemetery in Central Texas. *Journal of Archaeological Science* 40: 1369-1381.
- McKenzie, C.M., L. Martinez, and R. Mauldin
2016 *Archaeological Monitoring and Test Excavations at the 1722 Presidio San Antonio de Bexar (Plaza de Armas Buildings)*. Archaeological Report, No. 445. Center for Archaeological Research, The University of Texas at San Antonio.
- Meissner, B.A.
2000 *An Archaeological Assessment of San Pedro Park (41BX19), San Antonio, Texas*. Archaeological Survey Report, No. 269. Center for Archaeological Research, The University of Texas at San Antonio.
- Menger, R.
1913 *Texas Nature Observations and Reminiscences*. Guessaz and Ferlet Company, San Antonio.
- Miller, M.J., III
2009 *‘A Tale of Two Weapons’: Late Holocene Hunting Technology in North Central Texas*. Master’s Thesis, Department of Geography, University of North Texas, Denton.
- Miller, C., and D.R. Johnson
1990 The Rise of Urban Texas. In *Urban Texas: Politics and Development*, edited by C. Miller and H.T. Sanders, pp.3-33. Texas A&M University Press, College Station.
- Moore, V.A., and M.J. Galindo
2018 *Intensive Archaeological Investigation of the Martinez Creek Hike and Bike Trail Project, San Antonio, Bexar County, Texas*. Pape-Dawson, Austin.
- Munoz, C.M., R.P. Mauldin, J.L. Thompson, and S.C. Caran
2011 *Archaeological Significance Testing at 41BX17/271, the Granberg Site: A Multi-Component Site Along the Salado Creek in Bexar County, Texas*. Archaeological Report, No. 393. Center for Archaeological Research, The University of Texas at San Antonio.
- National Park Service (NPS)
2021a Prospect Hill Missionary Baptist Church. National Register Database and Research. Electronic document, <https://www.nps.gov/subjects/nationalregister/database-research.htm#table>, accessed February 22, 2021.
2021b History and Culture. El Camino Real de los Tejas National Historic Trail. Electronic document, <https://www.nps.gov/elte/learn/historyculture/index.htm>, accessed February 24, 2021.
- Natural Resources Conservation Service (NRCS)
2021 Web Soil Survey. United States Department of Agriculture. Electronic document, <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>, accessed February 10, 2021.
- Nickels, D.L., and I.W. Cox
1996 *An Archaeological Assessment of the Alazán Ditch (41BX620) in the Five Points Area of San Antonio, Bexar County, Texas*. Archaeological Survey Report, No. 253. Center for Archaeological Research, The University of Texas at San Antonio.
- Nickels, D.L.
2000 The Biesenbach Site (41WN88): A Case Study in Diet Breadth. Master’s thesis, Department of Anthropology, The University of Texas at San Antonio.

Nickels, D.L. and R.P. Mauldin

2001 The Project Environment. In *An Archaeological Survey of Twin Buttes Reservoir, Tom Green County, Texas, Vol. 1*, edited by R.P. Mauldin and D.L. Nickels pp. 25-37. Archaeological Survey Report, No. 300. Center for Archaeological Research, the University of Texas at San Antonio.

Pagano, V.C. and D.M. Yelacic

2020 *Archaeological Survey Report: Alazan Lofts Project*. Terracon Consultants., Inc., San Antonio.

Petersen, J.F.

2001 San Antonio: An Environmental Crossroads on the Texas Spring Line. In *On the Border: an Environmental History of San Antonio*, edited by C. Miller, pp.17-41. University of Pittsburgh Press, Pennsylvania.

Poyo, G.E.

1991 The Canary Island Immigrants of San Antonio: From Ethnic Exclusivity to Community in Eighteenth-Century Bexar. In *Tejano Origins in Eighteenth-Century San Antonio*, edited by G.E. Poyo and G.M. Hinajosa, pp. 41-61. University of Texas Press, Austin.

1996 Conclusion. In *Tejano Journey 1770-1850*, edited by G.E. Poyo, pp. 125-133. University of Texas Press, Austin.

Quigg, J.M., J.D. Owens, P.M. Matchen, G.D. Smith, R.A. Ricklis, M.Cody, and C.D. Frederick

2008 *The Varga Site: A Multicomponent, Stratified Campsite in the Canyonlands of Edwards County, Texas*. Program Report No. 110. Texas Department of Transportation Archaeological Studies, Austin.

Ricklis, R.A.

2011 New Perspectives on the Archaic of the Texas Coastal Plain: The Buckeye Knoll Site (41VT98) on the Lower Guadalupe River near Victoria. Texas. *Bulletin of the Texas Archaeological Society* 82:31-77.

Sanders, H.T.

1990 Building a New Urban Infrastructure: The Creation of Postwar San Antonio. In *Urban Texas: Politics and Development*, edited by C. Miller and H.T. Sanders, pp. 154-174. Texas A&M University Press: College Station.

Texas Historical Commission (THC)

2021 Texas Archaeological Sites Atlas. Electronic document, <https://atlas.thc.state.tx.us/>, accessed February 22, 2021.

Texas Sacred Places Project (TSPP)

2021 Bexar County-Prospect Hill Missionary Baptist Church-Architecture. Electronic document, <https://sites.google.com/a/sacredplaces.org/texas-sacred-places-project/index/list-of-counties/bexar-county/bexar-county--prospect-hill-missionary-baptist-church/architecture>, accessed 2021.

Texas State Historical Association (TSHA)

2018 Secession and Civil War. Texas Almanac. Electronic document, <https://texasalmanac.com/topics/history/timeline/secession-and-civil-war-0>, accessed February 2, 2021.

Thomas, A. and C.M.M. McKenzie

2019 *Archaeological Monitoring for Frio Street Utility Improvements from Houston Street to Cesar Chavez Boulevard, San Antonio, Bexar County, Texas*. Archaeological Report, No. 460. Center for Archaeological Research, The University of Texas at San Antonio.

Thoms, A.V., and P.A. Clabaugh

2011 The Archaic Period at the Richard Beene Site: Six Thousand Years of Hunter-Gatherer Family Cookery in South-Central North America. *Bulletin of the Texas Archaeological Society* 82:77-117.

Tijerina, A.

1996 Under the Mexican Flag. In *Tejano Journey 1770-1850*, edited by G.E. Poyo, pp. 33-49. University of Texas Press, Austin.

References Cited

Turner, S.E., T.R. Hester, and R.L. McReynolds

2011 *Stone Artifacts of the Texas Indians*, 3rd Edition. Taylor Trade Publishing, Plymouth, UK.

US Army Corps of Engineers

2014 *San Antonio Channel Improvement Project, General Re-evaluation Report and Environmental Assessment. Westside Creeks Ecosystem Restoration, San Antonio, Texas*. Westside Creeks Restoration Project, San Antonio River Authority.

Wack, L.

2011 *The Burris Bison Site: Analyzing Patterns of Animal Use from the Late Archaic Period to the Terminal Late Prehistoric Period*. MA Thesis, the University of Texas at San Antonio.

Ward, R.A.

2014 *Archaeological Monitoring Investigations for the San Antonio Water System VIA Transit-Westside Multimodal Transit Center Phase II Water Main Replacement Project, San Antonio, Bexar County, Texas*. SWCA Cultural Resources Report No. 14-580, SWCA Environmental Consultants, San Antonio.

2017 Chapter 14: Interim Report X: Cultural Resources Investigations for the CPS Energy Haven for Hope Pole Replacement Project, Bexar County, Texas. In *CPS Energy 2016 Annual Permit: Final Report for Eighteen CPS Energy Projects under Antiquities Permit Number 7541, Bexar and Medina Counties, Texas*. SWCA Cultural Resources Report No. 17-229, SWCA Environmental Consultants, San Antonio.

Waters, M.R., S.L. Forman, T.A. Jennings, L.C. Nordt, S.G. Driese, J.M. Feinberg, J.L. Keene, J. Halligan, A. Lindquist, J. Pierson, C.T. Hallmark, M.B. Collins and J.E. Wiederhold

2011 The Buttermilk Creek Complex and the Origins of Clovis at the Debra L. Freidkin Site, Texas. *Science* 331(6024): 1599-1603.

Weir, F.A.

1976 *The Central Texas Archaic*. PhD Dissertation. Department of Anthropology, Washington State University, Pullman.

Wooster, R.A.

2021 Civil War. Handbook of Texas Online. Texas State Historical Association. Electronic document, <https://tshaonline.org/handbook/online/articles/qdc02>, accessed February 22, 2021.

Zapata, J.E.

2023 *Alazàn Creek Trail Project, San Antonio, Bexar County, Texas*. Archaeological Report, No. 496, Center for Archaeological Research, The University of Texas at San Antonio.