Excavation of Prehistoric Human Remains from 41ZP144 in San Ygnacio, Zapata County, Texas

by
Cynthia Moore Munoz

Texas Antiquities Permit No. 6387

Principal Investigator

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Archaeological Report, No. 428

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Abstract:

From December 18-20, 2012, the Center for Archaeological Research (CAR) of The University of Texas at San Antonio (UTSA) conducted archaeological excavations at 41ZP144, a site identified in 1991 by James Warren of Archaeology Consultants, Inc. during monitoring of utility pipeline installation. The CAR was contracted by Zapata County to exhume human remains exposed and reburied as part of Warren's investigations. The project, conducted under the requirements of the Texas Antiquities Code, was performed under Texas Antiquities Permit No. 6387, with Dr. Steve Tomka serving as Principal Investigator and Cynthia Moore Munoz serving as Project Archaeologist. The work involved the mechanical removal of asphalt and road base from above the interment and the hand-excavation of two test units. The individual was identified as an adult female of Native American ancestry. No mortuary items were recovered with the burial.

The human remains were claimed by the Mescalero Apache Tribe of the Mescalero Reservation in New Mexico for reburial at the Zapata County cemetery. All non-burial-associated archaeological artifacts collected by the CAR, along with all project-associated documents, notes, and photographs, were prepared for curation according to Texas Historical Commission (THC) guidelines and are permanently curated at the Center for Archaeological Research at The University of Texas at San Antonio.

Table of Contents:

Abstract iii
Table of Contents v
List of Figures vi
List of Tables vii
Acknowledgements viii
Chapter 1: Introduction and Project Background 1
Chapter 2: Project Overview 3
  Environmental Setting 3
  Cultural History 3
    Paleoindian 4
    Archaic 5
    Late Prehistoric 6
    Historic 6
  Previous Archaeological Investigations 6
Chapter 3: Field and Laboratory Methods 7
  Field Methods 7
  Laboratory Methods 8
Chapter 4: Results of Exhumation 9
  Artifact Descriptions 9
  Human Remains 9
    Osteological Analysis 11
    Analysis Results 12
    A Summary of Burial Sites in Far South Texas 12
Chapter 5: Summary 15
References Cited 17
Appendix A: Burial Forms 23

List of Figures:

Figure 1-1. San Ygnacio USGS 7.5-minute quadrangle map showing the location of the project area 1
Figure 2-1. Project area (note grave marker embedded in pavement) 4
Figure 3-1. CAR archaeologists monitoring the mechanical removal of the pavement over the burial 7
Figure 4-1. Plan view of TUs 1 an 2 upon exposing human remains 10
Figure 4-2. Far South Texas archaeological sites containing burials 14

List of Tables:

Table 4-1. Artifacts Recovered in Overburden and Test Units 1 and 2 from 41ZP144 9
Table 4-2. Burials in the Rio Grande Delta and Inland Rio Grande Sub-regions and Tamaulipas, Northern Mexico 13

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The Principal Investigator would like to extend his thanks to Steven Trautmann for coordinating with the Zapata County Judge's Office as well as assisting with contractual matters.

Chapter 1: Introduction and Project Background

This report discusses the exhumation of human remains from archaeological site 41ZP144 that occurred from December 18-20, 2012. The site, described as an open campsite, was identified in 1991 during archaeological monitoring of trenching for wastewater pipeline installation in the town of San Ygnacio, Texas (Warren 1992). Because the project involved utilities installations, no coordination occurred with the Texas Department of Transportation that typically oversees any impacts to roads and highways. During the course of this work, human remains, representing one individual, were accidentally unearthed. The remains, located on a high terrace approximately 55 m east of the Rio Grande, were at the corner of Washington Avenue and Trevino Street. The site is located in northwest Zapata County on the San Ygnacio USGS 7.5-minute quadrangle map (Figure 1-1).

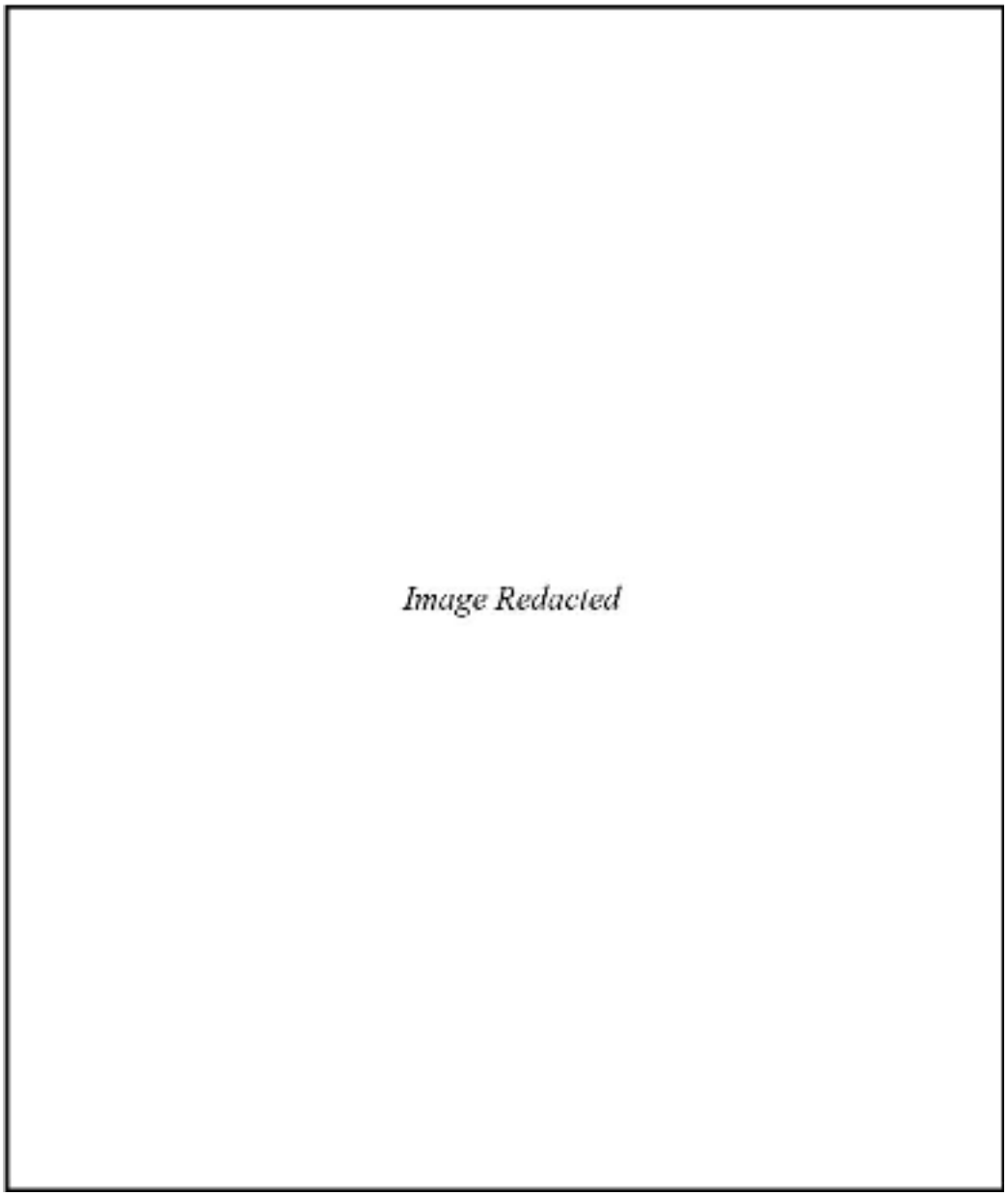

Figure 1-1. *San Ygnacio USGS 7.5-minute quadrangle map showing the location of the project area.*

The grave pit was covered with 7-10 cm of soil under 25 cm of caliche. Lithic chert flakes, a core, and mussel shells were noted in the grave fill. A portion of the remains, consisting of the skull, vertebrae, rib cage, and left arm, were damaged by backhoe excavation of a lateral utility trench. A radiocarbon assay of a bone sample dates the remains at 560+/-60 BP (Beta #51889; Warren 1992). Warren (1992), acting under the advisement of the Texas Antiquities Committee, only exposed the burial to the extent needed to determine ethnicity and gather descriptive information. The remains were reburied under the pavement of Trevino Street.

In 2012, a Petition for Removal of Remains was filed by Zapata County. The petition was heard by the 49th Judicial Court of Webb-Zapata County, and a court order was issued to allow for the removal of the human remains. The Center for Archaeological Research (CAR) at The University of Texas at San Antonio (UTSA) was contracted by the County of Zapata in accordance with the THC to perform the archaeological services required under the Antiquities Code of Texas, i.e. to exhume the remains. The land impacted by the project is owned by the County of Zapata, a political subdivision of the State of Texas. As such, the project has to comply with State Historic Preservation laws and, specifically, the mandates of the Antiquities Code of Texas. The archaeological work at 41ZP144 was performed under Texas Antiquities Permit No. 6387, with Dr. Steve Tomka, CAR Director, serving as Principal Investigator and Cynthia Moore Munoz serving as Project Archaeologist.

The archeological services provided by the CAR consisted of eight principal activities: 1) the application for a THC permit, 2) monitoring of the removal of the road surface and road base above the burial, 3) exhumation of the remains by hand-excavation, 4) return of the remains to UTSA for analysis at the CAR, 5) completion of Native American Grave Protection and Repatriation Act (NAGPRA) consultation related to the burial, 6) completion of a technical report summarizing the details of the investigations and findings, 7) overseeing the return of the remains to Zapata County for reburial in the county cemetery, and 8) coordination with THC's Archaeology Division and Zapata County during all phases of the project to satisfy Texas Antiquities Code and permit requirements.

The archaeological work resulted in the recovery of a partially intact skeleton located approximately 40 cm below the existing street pavement. The remains consisted of a partial cranial vault, the right arm, the sacrum, the pelvis, and both legs. The portions previously disturbed in 1991 were missing. The construction of the road, along with vehicular traffic, has left the remaining bones in poor condition. Most of the skeleton is crushed and fragmented. Based on the radiocarbon date, mussel shell, debitage, and skeletal indicators, the individual represents a Native American adult female of unknown age.

This document describes the field investigations carried out at 41ZP144 and summarizes the results of the analysis of the human remains. The report is organized into five chapters. Chapter 2 discusses the environmental setting of the project area and provides an overview of the region's cultural chronology. Chapter 3 discusses the fieldwork and laboratory methodology used during the excavations at 41ZP144. The results of the exhumation are presented in detail in Chapter 4. Chapter 5 summarizes the fieldwork, the results of the analyses, the NAGPRA coordination efforts that have taken place to date, and the final disposition of the human remains.

Chapter 2: Project Overview

This chapter contains a description of the environmental setting of the project area, including climate, vegetation, geology, and soils. A brief discussion of the culture history of South Texas is included. The chapter concludes with a summary of previous archaeological work conducted in the vicinity of the project area.

Environmental Setting

The project area is located on the San Ygnacio, Texas, USGS 7.5-minute quadrangle map roughly 55 m east of the Rio Grande River in northwest Zapata County. The extent of site 41ZP144 is not known because it extends onto private property to its east and west. From north to south, the site measures 50 m (Warren 1992). Topographically, 41ZP144 is situated on a high terrace overlooking the Rio Grande River approximately 61 km upstream from Falcon Dam. Elevation on the site is 98 m above mean sea level (amsl). The site lies in the southernmost portion of the Interior Coastal Plain of the Texas Gulf Coastal Plains physiographic province. This province is comprised of alternating bands of uncemented sands among weaker shales that erode into long sandy ridges. Elevations on the Interior Coastal Plain range from roughly 91-244 m amsl (Wermund 1996). In the immediate project area, the surface geology consists of Middle Eocene Laredo Formation. This formation is primarily sandstone sandwiching a middle layer of clay or mud (Stoeser et al. 2013).

The Rio Grande River is incised into the formation's sandstones, clays, mudstones, and shales. In the project area, the alluvial valley of the river is relatively narrow and is incised into Tertiary and Cretaceous strata (Gustavson and Collins 1998). Emerging as a snow and spring-fed stream in San Juan County, Colorado, the Rio Grande River runs through the middle of New Mexico to El Paso, Texas. From El Paso it forms the border between 13 Texas counties and Mexico before flowing into the Gulf of Mexico (Metz 2013). From roughly the City of Del Rio, in Val Verde County, to the Gulf of Mexico, the river meanders through the Tamaulipan Biotic Province (Blair 1950; Texas Parks and Wildlife Department 2013). The Tamaulipan Province has a semiarid, megathermal climate that allows year-round plant growth and supports a wide range of vertebrate species including grassland, basin desert, and Neotropical species (Blair 1950:103).

The project area is located in the South Texas Brushlands ecological region (Frye et al. 1984) that was prehistorically dominated by grassland vegetation. Overgrazing, fire suppression, and changes in land use have transformed the original terrain into thorny brush vegetation (Bogusch 1952). River floodplains support larger trees such as cottonwood (*Populus deltoids*), elm (*Ulmus crassifolia*), and pecan (*Carya illinoinensis*). Mesquite (*Prosopis* sp.), black persimmon (*Diospyros texana*), huisache (*Acacia farnesiana*), soapbush (*Guaiacum angustifolium*), blackbrush (*Acacia rigidula*), whitebrush (*Aloysia gratissima*), yucca (*Yucca* sp.), prickly pear (*Opuntia* sp.), grama (*Bouteloua* sp.), buffalo grass (*Cenchurus ciliaris*), and mesquite grasses (*Hilaria belongeri*) dominate the uplands (Blair 1950; Quigg and Cordova 2000). No vegetation was noted on the project area as it is currently paved over (Figure 2-1). Sixty-one species of mammals, fifty-seven species of reptiles, and twenty-one species of amphibians have been documented on the Tamaulipan province (Blair 1950).

The high terrace comprising 41ZP144 is composed of Lagloria loam (LgA). This series consists of very deep, nearly level, well drained soils that are moderately permeable. These soils formed in calcareous silty alluvium derived from mixed sources. LgA soils have a surface layer of grayish brown (10YR 5/2) loam roughly 51 cm thick resting on 178 cm of brown to pale brown (10YR 5/3, 10YR 5/4, 10YR 7/3, 10YR6/3) silty loam (Molina and Guerra 2011).

Climate in this general area is classified as subtropical-subhumid. Mean annual precipitation is approximately 51 cm with most rainfall occurring in May and September. The mean annual temperature for Zapata County is 74°F with average minimum and maximum temperatures of 54°F in January and 86°F in July. The growing season in Zapata County averages 295 days annually (Garza and Long 2013).

Cultural History

Due to limited subsurface investigations throughout Zapata, Webb, Starr, and surrounding counties, the prehistory of South Texas is not well known. Archaeological sites with long sequences of stratified deposits are sparse in South Texas. The following

Figure 2-1. *Project area (note grave marker embedded in pavement).*

cultural history is based primarily on the chronologies developed by Black (1989) and Hester (Hester 1989, 2004). Four major time periods define South Texas: Paleoindian, Archaic, Late Prehistoric, and Historic. A brief description of each period follows to illustrate the archaeological potential of the region.

Paleoindian

The Paleoindian Period (11,150-7950 BP) begins at the close of the Pleistocene with the earliest evidence of humans in South Texas (Black 1989). Clovis, Folsom, Plainview, Golondrina, Scottsbluff, and Angostura point types characterize this period. Projectile points and sites from this period are scarce in South Texas with only a few surface finds of Clovis and Folsom in Zapata and surrounding counties. In the past, Paleoindian populations have generally been characterized as hunter-gatherers primarily subsisting on large herbivores, such as mammoth and *Bison antiquus*. However, excavations at Baker Cave in Pecos County recovered fish, reptiles, and rodents associated with the Golondrina complex suggesting a more diversified subsistence base (Hester 1983). Tankersley and Isaac (1990) offer other perspectives on Paleoindian adaptations also indicating that the diet of these early inhabitants may have been much broader than previously believed. Although exploiting Late Pleistocene megafauna may have constituted a part of Paleoindian subsistence, these peoples are perhaps better characterized as generalized hunter-gatherers, exploiting a variety of plants and animals including large herbivores, like deer and bison, and small animals, such as turtles, alligators, rabbit, and raccoons (Collins 2004; Nickels 2000).

In South Texas, most of the sites containing Paleoindian materials are found on high terraces and upland locations (Black 1989). This seems to fit with a broader pattern of Paleoindian site distributions where sites are located on landforms providing views of the surrounding landscape, are centered on critical resource zones, or are found in highly productive resource areas (Tankersley and Isaac 1990). Paleoindian artifacts are commonly recovered as isolated finds or from lithic scatters lacking good stratigraphic context (Collins 2004). No mammoth kill or butchering sites attributable to the Paleoindian Period have been found in South Texas (Hester 2004).

Archaic

The transition to the Archaic Period (7950-1150 BP) is poorly understood in South Texas. Technological shifts in point types and an emphasis away from big game hunting took place at some point during the Late Paleoindian Period. By the start of the Archaic Period lanceolate points were replaced by stemmed dart points, e.g., Bell and Andice (Black 1989). A change in food processing is evident in the middle of the period from massive burned rock accumulations, i.e., oven and midden features, suggesting a shift to plant processing (Hall et al. 1986). Towards the end of the Archaic Period, large cemeteries were forming indicating an increasing population and the subsequent establishment of territories (Hester and Corbin 1975; Taylor and Highley 1995). Hester (2004) and Black (1989) subdivided the Archaic into Early, Middle, and Late sub-periods.

Early Archaic

In South Texas, the Early Archaic dates from 7950 to 4450 BP (Black 1989). Distinctive artifacts from this sub-period include Bell, Early Triangular, Zorra, Andice, and Early Expanding Stem dart points; Guadalupe and unifacial Clear Fork gouges; large triangular bifaces; and beveled tools (Black 1989). The evolving tool types suggest an economic shift away from big game hunting to a more intense exploitation of local resources such as deer, fish, and plant bulbs. This behavioral change is indicated by more specialized tools, such as Guadalupe bifaces and Clear Fork gouges (Hester 2004; Turner and Hester 1999). These tools exhibit wear patterns as adzes and gouges, suggesting wood working during this time.

Weir (1976) concludes that the Early Archaic groups were highly mobile and small. He bases this inference on the fact that Early Archaic sites are thinly distributed, and projectile points are widely distributed across most of Texas and northern Mexico. Story (1985) concurs with Weir that population densities were low during the Early Archaic. She suggests that groups were made up of small bands of related individuals with "few constraints on their mobility" (Story 1985:39) subsisting on a broad range of resources, such as prickly pear, lechuguilla, rodents, rabbits and deer.

One archaeological site in far South Texas, 41SR42, excavated in 1951 before the construction of Falcon Dam (Hartle and Stephanson 1951), is a deeply stratified site with an Early Archaic occupation. It produced stone tools diagnostic of the sub-period and provided one of the few associated radiocarbon dates in far South Texas (Quigg and Cordova 2000). A stratified Early Archaic site in Zapata County, the Royer site, was also excavated in the 1950s (Cason 1952). This investigation recovered a heavy concentration of debitage, stone tools, Early Triangular projectile points, and several hearths. An additional well-stratified site in the county, 41ZP364, exposed debitage, stone tools, and burned rock features. One relatively dense occupation was dated to 4800 BP (Quigg and Cordova 2000).

Middle Archaic

The Middle Archaic, 4450-2350 BP (Black 1989), appears to have been a period of increasing population, based on the large number of sites documented from this time in South Texas (Black 1989; Story 1985; Weir 1976). However, dating surface sites has been a problem. There are few radiocarbon assays, and typological problems have made cross-dating questionable (Black 1989; Quigg and Cordova 2000). Point styles from this period include Tortugas, Abasolo, Pedernales, Langtry, Kinney, Lange, Morhiss, and Bulverde. Small- to medium-sized distally beveled tools and ground stone tools are also common (Hester 2004). The emergence of burned rock features (Hall et al. 1986) suggests an intensification of plant resource procurement during this sub-period. Some investigators believe burned rock middens resulted from acorn processing (Creel 1986; Weir 1976) although others (e.g., Black et al. 1997; Goode 1991) question this argument. Black et al. (1997) suggest that the burned rock middens of Central Texas accumulated as a result of the baking of a relatively broad range of resources in rock/earth ovens. These resources potentially included carbohydrate laden nuts, bulbs, roots, and pads as well as various vertebrate and invertebrate animals.

Late Archaic

The final interval of the Archaic in Central Texas dates from 2350 to 1150 BP (Black 1989). Points from this sub-period are generally smaller than those of the Middle Archaic and are represented by side-notched and small corner-notched dart points including Ellis, Fairland, Marcos, Ensor, Frio, and Matamoros. Late Archaic sites are predominately located next to water features (Hester 2004). They are common in South Texas and contain subsistence data suggesting a broad economy that focused on plant resources and small animals (Black 1989). There is disagreement as to the continuing use of burned rock middens. Prewitt (1981) suggests the near cessation of the midden construction, whereas excavations at a number of sites document large cooking features, some up to 15 m

in diameter (Hall et al. 1986; Highley 1986; Houk and Lohse 1993; Johnson 1995; Mauldin 2003).

During this sub-period, large cemeteries were formed indicating an increasing population and the subsequent establishment of territories (Black 1989; Black and McGraw 1985; Hester 2004). However, except for a few individual burials, cemeteries are rare in far South Texas, i.e. Webb, Zapata, Starr, Hidalgo, Cameron, Willacy, Jim Hogg, Kenedy, and Brooks counties). This may be a reflection of limited subsurface investigations in the region.

Late Prehistoric

The Late Prehistoric Period (1150-350 BP) in South Texas marks a distinctive shift from the use of the atlatl and dart to the use of the bow and arrow (Black 1989; Hester 2004; Story 1985). Pottery is also diagnostic of the period. The Late Prehistoric is subdivided into early and late sub-periods termed Austin and Toyah horizons, respectively (Black 1986). Based on comparisons with Central Texas, the Austin horizon dates to 1150-600 BP and the Toyah to 600-422 BP. Temporal diagnostics, including Scallorn and Edwards arrow points, define the Austin Phase (Hester 2004). It appears that the use of burned rock middens may have reached its peak during this phase (Black and Creel 1997). The subsequent Toyah Phase includes the first occurrence of pottery in South Texas. Characteristic artifacts of this phase include Perdiz and Caracara arrow points (Black 1986, 1989; Hester 2004). Material culture associated with the Late Prehistoric Period indicates increasing complexity in subsistence patterns and very large prehistoric populations.

Historic

The Historic Period in Texas begins with the arrival of Europeans. Although the Historic Period theoretically begins in Texas with the shipwreck of the Narvaez expedition along the Texas coast in 1528, the majority of the inhabitants of Texas were Native Americans until the late eighteenth century (Favata and Fernandez 1993). From AD 1550 to the late 1600s, European forays into South and Central Texas were infrequent. René Robert Cavelier, Sieur de La Salle, established a French settlement, Fort St. Louis, along Matagorda Bay on the Texas coast in 1685 (Foster 1998). Hunger, disease, and escalating hostilities between the French and the Karankawas, subsequently led to the destruction of the colony. In 1690, as a result of the discovery of the remains of the La Salle colony, the Spanish began securing the northern border of New Spain, expanding their interests in East Texas to counter any French expansion across the Mississippi River (Foster 1995). The first Europeans settled in the region in early AD 1700 (Taylor 1996). The southward incursion of the Comanche and Apache and the northward expansion of Spanish influence led to the displacement of many of the area's indigenous groups. The native groups were termed Coahuiltecan on the basis of a common language (Newcomb 1990). Decimated by disease brought by Europeans, many of the remaining groups sought refuge in the numerous Spanish missions established early in the eighteenth century. The move to the missions significantly impacted the hunter-gatherer way of life and the material culture. Artifacts from the Historic Period reflect European influences and include metal, glass, and ceramics along with pre-Hispanic Goliad wares and lithic arrow points, tools, and gunflints (Taylor 1996).

Previous Archaeological Investigations

A review of the Texas Archeological Sites Atlas revealed 609 archaeological sites in Zapata County. At least 435 (71 percent) of the sites are associated with the Falcon Reservoir. Of the 609 sites, 496 are prehistoric, 63 are historic, and 28 have both components (THC 2013). Seven sites are located within a 3.5 km radius of the project area. Six of the seven were recorded as part of a 2002 pedestrian survey of the Falcon Reservoir by Wendy Lopez & Associates. Sites 41ZP828, 41ZP829, and 41ZP831, located immediately adjacent to the Rio Grande River, are historic irrigation features. Two are pipelines, and one is an irrigation pump mount. A surface scatter of historic debris and a lithic artifact were recorded as site 41BP826, some 3 km to the northeast of the project area. Two prehistoric sites, both lithic scatters, were documented adjacent to the Rio Grande River. Site 41ZP827 is located 1.95 km northwest of the project area, and 41ZP830 is located 3.15 km to the southeast. Both consisted of surface scatters of choppers, scrapers, and debitage. Site 41ZP827, located on a plowed field, also contained burned rock suggesting the presence of subsurface features (THC 2013). Located 0.27 km to the east of the project area, 41ZP97 is an historic site in the town of San Ygnacio. No information could be found about the site other than its location. The site likely refers to the San Ygnacio Historical District (THC 2013).

Chapter 3: Field and Laboratory Methods

Previous work at 41ZP144 exposed partially intact human remains in San Ygnacio under Trevino Street (Warren 1992). The CAR, under contract with the County of Zapata, removed the previously exposed remains for eventual reburial. This chapter presents the field and laboratory methods used during the archaeological investigations of 41ZP144.

Field Methods

The burial was located using a plan map of the burial feature and adjacent buildings recorded by Warren in his 1992 report (Warren 1992). A marker was found embedded in the pavement above Warren's location. The CAR staff archaeologists monitored the mechanical removal of the road surface and road base (Figure 3-1). At the termination of road base, roughly 30 cm below the pavement, mechanical excavations were stopped and hand-excavations, under the supervision of the CAR Physical Anthropologist, were started. Remaining overburden was removed by shovel scraping and trowel to limit further damage to the remains. A 1-x-2 m test unit (TU) was placed over the estimated location of the body to allow for controlled hand excavation to expose and document the vertical and horizontal location of the remains. The test unit was excavated in 10 cm levels, and all matrix removed from each level was screened through 1/8-inch hardware cloth. All non-skeletal artifacts recovered were bagged and referenced to the appropriate provenience. Sediments were described (texture, consistency, Munsell color, and inclusions) for each level of the test units. Upon exposure of the burial pit outline, it was determined that the burial was located in the southern half of the 1-x-2 m unit (TU 1) and the southern portion of the northern half of the 1-x-2 m unit (TU 2). Excavation of TU 2 continued in its southern half only, i.e. over the burial pit.

Figure 3-1. *CAR archaeologists monitoring the mechanical removal of the pavement over the burial.*

Wooden skewers were used to expose the skeletal elements to minimize any further damage to the remains. The burial was pedestalled then plotted on a site map, sketched, photographed, and recorded on a burial form. The burial form was used to record horizontal and vertical provenience, position of the skeleton, orientation direction of the skull, and post-depositional shifting of the remains (see Appendix A). Evidence of post-interment disturbances, grave dimensions, grave fill, and fill into which the grave was excavated were also recorded on the form. The location of the burial was recorded with a Trimble GeoExplorer GeoX handheld GPS unit. After the recording procedure was completed, elements were carefully removed and individually bagged. The bags were labeled with the element identification, the excavator's initials, and the date. These individual packages were placed in a temporary curation container that was removed from the project area at the end of each workday and secured with the physical anthropologist. Each evening, the excavation was covered with heavy plastic for protection. The Zapata County Sheriff's Office provided security at the project area each evening and overnight until the exhumation was complete. Upon completion of the excavation, all artifacts and human remains were returned to the CAR laboratory for processing and detailed analysis.

Laboratory Methods

Cultural materials recovered from the exhumation outlined above were inventoried and processed at the CAR laboratory at UTSA. All artifacts recovered were identified and analyzed. Proveniences for the materials were double checked through the use of a field sack number that was recorded on a field log form. Field sack numbers were assigned to artifact bags in the field. At the CAR, all artifacts and samples were separated by type and recovery context to facilitate analysis. Processing of recovered artifacts began with washing and sorting into appropriate categories (e.g., debitage, bifaces, ceramics, and metal). Due to the fragile condition of the skeletal elements, they were not washed but were dry brushed instead. Individual categories were then analyzed by specific attributes designed for each group. All data was entered into Excel® spreadsheets.

Cultural materials and records obtained or generated during the project were prepared in accordance with federal regulation 36 CFR part 79 and THC requirements for State Held-in-Trust collections. Additionally, the materials were curated in accordance with current guidelines of the CAR. Artifacts processed in the CAR laboratory were washed, air-dried, and stored in archival-quality bags. Acid-free labels were placed in all artifact bags with a provenience and corresponding lot number. Tools were labeled with permanent ink and covered by a clear coat of acrylic. Other artifacts were separated by class and stored in acid-free boxes.

Digital photographs were printed on acid-free paper and labeled with archivally appropriate materials and placed in archival-quality sleeves. All field forms were completed with pencil. Field notes, forms, photographs, and drawings were printed on acid-free paper and placed in archival folders. All archival folders were stored in acid-free boxes. A copy of this report and all computer disks pertaining to the investigations were stored in an archival box and curated with the field notes and documents.

Upon completion of the project, all records and remaining materials, with the exception of human remains, were permanently curated at the CAR facility. Upon completion of the analysis of the burial, the NAGPRA consultation process was initiated by the CAR with federally-recognized tribes. The Mescalero Apache Tribe of the Mescalero Reservation New Mexico claimed ownership of the remains. A Notice of Inventory Completion was submitted to National NAGPRA. If no other tribes come forward with a claim, the human remains will be reburied at the Zapata County Cemetery by the Mescalero Apache. Until the NAGPRA consultation process is completed, the burial will be temporarily stored at the CAR.

Chapter 4: Results of Exhumation

The burial exhumation at 41ZP144 occurred December 18-20, 2012. Two 1-x-1 m units were excavated over Warren's (1992) recorded location of the human remains. The test units revealed a moderate distribution of historic trash and lithic material in the road base over the burial. The skeletal elements, located in TU 1 and in the southern half of TU 2, were in poor condition due to their location immediately under the paved road. No grave offerings were recovered with the human remains. This chapter discusses the results of the excavations and provides a comprehensive analysis of the human skeletal remains recovered by the CAR.

Artifact Descriptions

The two test units produced faunal remains (36.8 gm), mussel shell (0.7 gm), debitage (n=1), ceramic sherds (n=20), glass sherds (n=30), nails (n=36), and metal fragments (n=33). All of the artifacts, with the possible exception of the mussel shell, were found in fill around and over the burial (Table 4-1). Additional artifacts were recovered from the overburden, including one early stage biface, debitage (n=4), one burned rock, ceramic fragments (n=6), glass sherds (n=6), nails (n=22), metal (n=25), faunal bone (18.0 gm), and one piece of modern trash.

Human Remains

One burial was excavated from TUs 1 and 2 (Figure 4-1). The burial, located near the center of Trevino Street immediately north of the intersection of Trevino Street and Washington Avenue, was uncovered 36 cm below the paved road surface. It was lying on its left side in a loosely flexed position and was oriented on a north-south axis. The right arm was outstretched along the side of the body with the distal end of the lower arm near the pelvis. Although all but a fragment of the occipital was missing from the skull, it appears that the head was facing west, towards the Rio Grande River.

The grave pit outline measured 100-x-90 m. The 1991 utility trench was evident from fill material and from white plastic sheeting that was placed along the edges of the trench by Warren in 1991. Green plastic was covering the skeletal elements. All that remained of the burial was a partial cranial vault, the right arm, the sacrum, the pelvis, both legs, and the calcanei and tali. The elements that were disturbed in 1991 were missing. The bone was in poor condition with most of the elements heavily fragmented and friable. The epiphyseal ends of most of the long bones and the patellae were missing. Other than specks of bone near the left and right calcanei and

Table 4-1. Artifacts Recovered in Overburden and Test Units 1 and 2 from 41ZP144

Test Unit	Level	Depth (cmbs*)	Biface	Debitage	Burned Rock	Ceramic	Glass	Cut Nail	Wire Nail	Other Metal	Unidentified Metal	Modern Trash	Total		Bone (gm)	Mussel Shell (gm)
1	1	22-32					6	6			3		**15**		0.34	0.30
	2	32-42				2	6	3	3		13		**27**			0.39
	3	42-52		1		6	12	2			11		**32**			
2	1	22-32				8	2	5	2		2		**19**		14.09	
	2	32-49				4	4	15		2	2		**27**		22.41	
TU Total			**0**	**1**	**0**	**20**	**30**	**31**	**5**	**2**	**31**	**0**	**120**		**36.84**	**0.69**
Overburden	n/a	8-22	1	4	1	6	6	22		4	21	1	**66**		17.98	
Surface	n/a	8								1			**1**			
Grand Total			**1**	**5**	**1**	**26**	**36**	**53**	**5**	**7**	**52**	**1**	**187**		**54.82**	**0.69**

*centimeters below the surface

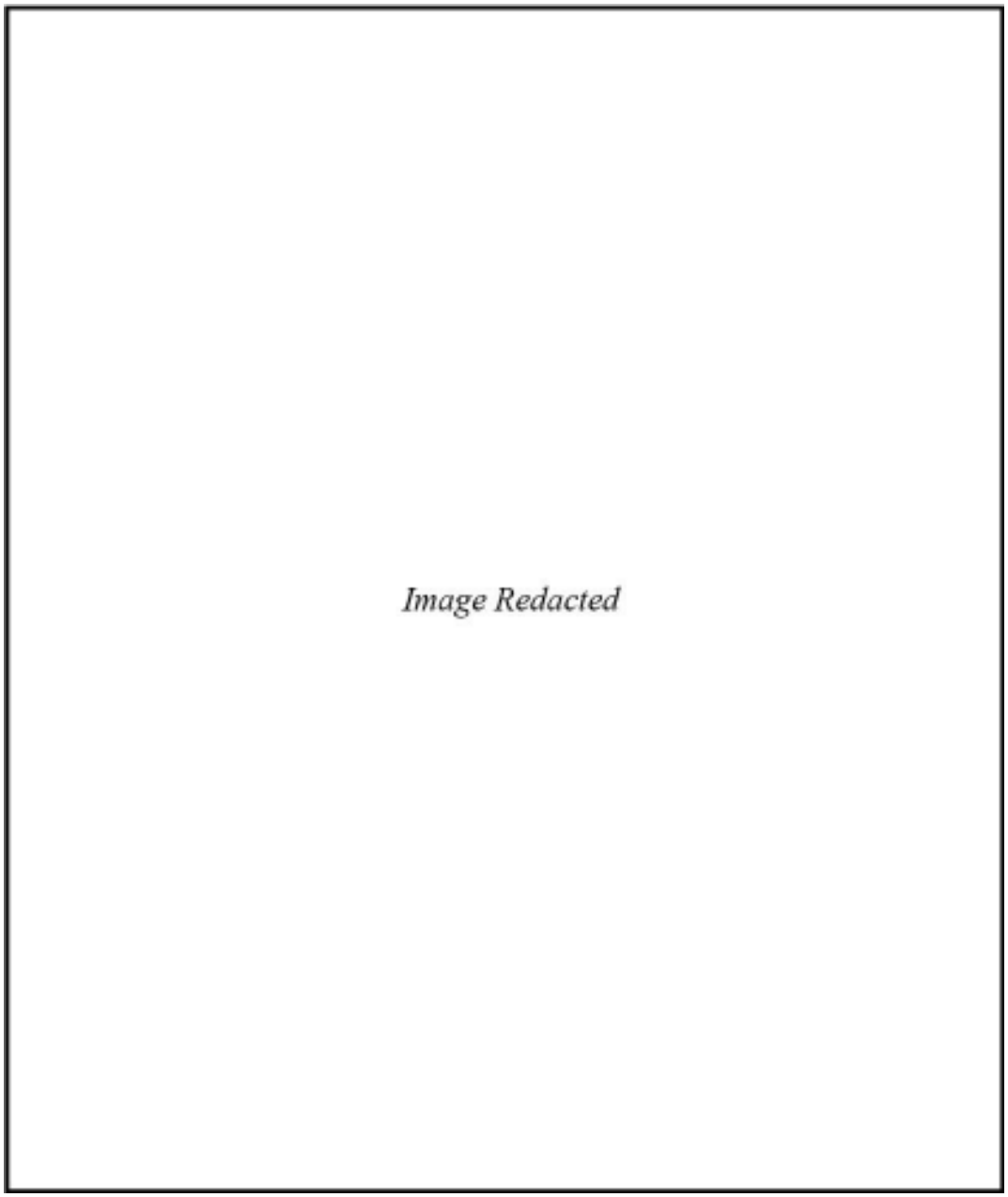

Figure 4-1. *Plan view of TUs 1 an 2 upon exposing human remains.*

tali, all the metatarsals and phalanges were degraded. The proximity of the remains to the surface likely caused the fragmentation and crushed the cancellous long bone ends.

Warren (1992), noted grave items, including mussel shell, debitage, and a core, alongside the remains. However, the CAR staff did not note any associated funerary items with the remains. Traces of what appear to be remnants of mussel shell (specks of white powder) were documented on the skeletal elements. It is probable that the 1992 road work, recent repaving of the road, and vehicular traffic have pulverized the mussel shell over the last 20 years.

Osteological Analysis

Analysis of the skeletal remains was conducted at UTSA by the CAR's Physical Anthropologist. The elements were carefully cleaned using wooden skewers and dry brushing. All burial data were entered into an Excel® spreadsheet as the analysis progressed. The analytical methods utilized in the current study are those recommended by Buikstra and Ubelaker (1994) for relatively complete skeletons. The analysis involved standard cranial and postcranial measurements, determination of sex, ancestry, and probable age of the individual, examinations for bone pathologies, and photographic records.

Adult male and female skeletons vary in both size and general shape. Therefore, accurate estimates of sex should be based on multiple factors including measurements of dimorphic dimensions, such as the maximum diameter of the femur head, and observations of morphological features, i.e. traits of the skull and pelvis, known to differ between males and females. Os coxae morphology presents the most reliable indicator of sex in the human skeleton.

Using the criteria set forth in by Buikstra and Ubelaker (1994), age is based on pelvic morphological changes, degree of cranial suture closure, dentition, and morphology of the long bones and joint surfaces. Reliable age-related changes occur in the pubic symphysis and the auricular surface of the ilium. Another indicator of age-related change is the degree of suture closure on the cranium. Eruption and wear of the teeth are commonly used in aging the human skeleton. Because of predictable formation and eruption times for teeth and because the dentition are the most regularly recovered elements in archaeological contexts, dental development is the most widely used method for aging subadult remains. In addition to eruption, rates and patterns of attrition are a function of age. When the rate of wear within a population is fairly consistent, the rate can be used to assign dental ages to adult specimens (White 2000).

Postcranial epiphysis fusion is predictable in that an epiphysis fuses at a known age but may vary by individual, population, and sex (White 2000). Because there is substantial interindividual variation in the chronology of epiphyseal closure, data with fusion ranges are available on various compilational charts for specific elements by sex (Baker et al. 2010; Krogman and Iscan 1986; McKern and Stewart 1957; Redfield 1970; Suchey et al. 1984; Ubelaker 1989a, b). The presence of osteoarthritis in the spine, hip, and knee is inherent as aging progresses. Nearly all individuals older than 60 years show osteoarthritic features, particularly in the lower thoracic and lumbar spine (White 2000). Although not reliable as a lone indicator, indications of osteoarthritis are useful as one element of a multifactorial age estimate.

Geographic ancestral affiliation of a skeleton or individual skeletal elements is at best tenuous, as there are "no human skeletal markers that correspond perfectly to geographic origin" (White 2000:375). However, the estimation of ancestry is necessary to the extent possible to address legal concerns associated with the NAGPRA laws. Traditional, primary indicators of general ancestral affiliation are the morphological traits of the dentition (Hillson 1996; White 2000). In addition, other elements of the human skeleton suggest Native American ancestry. The morphology of the femora, specifically platymeria or the flatness of the subtrochanteric portion of the shaft, suggests Native American ancestry. In a study of Northern Plains Indians, Gill (1995) demonstrates that this feature effectively discriminates Whites from Northern Plains Indians. White (2000) presents other traits attributable specifically to Mongoloids, Caucasoids, and Negroids. Traits indicating Native American ancestry include complex cranial sutures, wide vertical ascending rami, and the presence of Wormian bones.

Metric analysis was performed on elements with the appropriate measurement landmarks intact. Only precision implements were used. Skeletal measurements were obtained by Mitutoyo® Digimatic Calipers.

Upon completion of analysis, each element was bagged and labeled with element identification and provenience. All elements from the burial were placed into an archival box for reburial at the Zapata County cemetery. All associated documentation, including inventories, analysis paperwork, photos, and photologs, was curated at the CAR.

Analysis Results

This individual is a female of Native American ancestry. Specific age range determination was not possible; however, morphologic traits indicate that these remains are those of an adult, most likely young (20-35 years). This was a partial, articulated, primary burial uncovered 0.36 m below the street pavement. She was loosely flexed and lying on her left side with her skull to the south and her face turned to the west. The burial was disturbed by the excavation of the wastewater pipeline trench in 1991 resulting in displacement and loss of most of the skull, the shoulder girdle, the vertebrae, the rib cage, and the left arm. No personal items were recovered with the burial.

Sex

Following Buikstra and Ubelaker (1994), the sex of this individual was determined based on pelvic morphology. The ventral arc, ischiopubic ramus ridge, and preauricular sulcus all expressed positive expressions of female morphology. An assessment of these pelvic elements indicated a female with a high degree of certainty. Because postcranial elements exhibit sexual dimorphism, the size of the femur was also considered. Measurement of the left femoral head (46.45 mm) falls in the sex indeterminate range (43.5-46.5 mm), but this range was developed from American Whites in the Terry Collection (Bass 1995; Stewart 1979).

Age

An attempt was made to estimate age from pelvic morphological changes of the pubic symphyseal face and the auricular surface of the os coxae; however, the pelvis was too fragmented and degraded for a reliable assessment (Brooks and Suchey 1990; Lovejoy et al. 1985; Meindl and Lovejoy 1989; Suchey and Katz 1986; Todd 1921a, b). The long bones and the sacral body (S1) that articulates with the fifth lumbar vertebra (L5) were examined for indications of osteoarthritis. None of the few observable joint surfaces from the burial exhibit evidence of lipping, pitting, or eburnation suggesting that this individual was a young adult.

Ancestry

The prehistoric context, the bone date of AD 1400, and morphological traits of the femora demonstrate that the remains are of Native American ancestry. The femora are platymeric (<84.9 indicates platymeria) with an index of 75.96 (Bass 1995). The proximal part of the shaft of the femur shows considerable difference in general shape among populations. Platymeria, i.e. the flatness of the subtrochanteric portion of the shaft, suggests Native American ancestry.

Stature

Because the femora were fragmented and crushed in situ, accurate measurements of maximum length were not obtainable in the laboratory. However, the femur was measured in situ with a steel tape prior to removal. A stature estimate was produced using this measurement although, we are aware that accuracy is compromised. Using the Trotter and Gleser (1952, 1958) stature formula for Mongoloid males based on femur length, the burial ranges from 1.63 m (5 ft. 4 in.) to 1.71 m (5 ft. 7 in.; Bass 1995). The stature formula for White females resulted in a range from 1.59 m (5 ft. 3 in.) to 1.67 m (5 ft. 6 in.; Bass 1995). No formula for Mongoloid females could be found.

Pathology

Although the human remains were in poor condition, the skeletal elements present were carefully assessed for any indications of bone pathology. Pathological bone lesions, bone swelling, and arthritic change are absent. No fractures were noted. This individual appears relatively healthy based on the absence of indicators of systemic infection, local infection, and violent injury.

A Summary of Burial Sites in Far South Texas

A number of sites containing human remains have been excavated in far South Texas in the Rio Grande Delta (Cameron, Hidalgo, and Willacy Counties) and the Inland Rio Grande sub-regions (Starr, Zapata, and Webb Counties; Perttula 2001; Terneny 2005). Most of these burials are single interments with numerous associated grave goods (Table 4-2). Cameron County contains 5 archaeological sites with over 21 burials (Figure 4-2). Two of the sites, 41CF29 and 41CF158, consist of single interments and three, 41CF2, 41CF8, and 41CF111, contain multiple burials. Grave goods found with some of the remains include ochre, bone and shell beads, shell ornaments, bone pins, arrow points, and modified turtle carapaces (Collins et al. 1969; Eling et al. 1993; Mallouf and Zavaleta 1979; Prewitt 1974; THC 2013). Four sites in Hidalgo County, 41HG27, 41HG28, 41HG173, and 41HG176, consist of single interments and two, 41HG1 and 41HG174, contain multiple burials. Grave items, including ochre, bone and shell beads, shell and canine teeth tinklers, and a conch whorl pendant, were found with some of the 48 plus burials recorded in the

Table 4-2. Burials in the Rio Grande Delta and Inland Rio Grande Sub-regions and Tamaulipas, Northern Mexico

Trinomial/ Site Name	County/ State	# Burials	* Time Period	Description	Grave Items	No Description	Stone Pipe	Bone Beads	Shell Beads	Shell Pendant	Bone Pendants	Shell Tinklers	Canine Tinklers	Ochre	Modified Pebbles	Bone Pin	Projectile Points	Debitage	Shell Tool	Lithic Tool	Bone Tool
41CF2/ Floyd A. Morris	Cameron	13	MA-LA	flexed	yes			y	y			y	y								y
41CF8/ Garcia Pasteur	Cameron	multiple	UP	flexed	yes	y															
41CF29/ Horse Island	Cameron	1	LA	flexed	yes					y				y	y						
41CF111/ Unland	Cameron	6	LP	bundle/ flexed	yes											y	y				y
41CF158	Cameron	1	UP	unknown	unknown																
41HG1/ Ayala	Hildago	44	LP	flexed	yes			y	y	y	y	y					y				
41HG27/ McAllen	Hildago	1	UP	unknown	yes			y	y	y		y	y								
41HG28	Hildago	1	UP	unknown	unknown																
41HG173 / Guerra	Hildago	1	UP	unknown	yes			y	y				y								
41HG174/ Hygea Dairy	Hildago	8	UP	unknown	unknown																
41HG176	Hildago	1	UP	unknown	unknown																
41SR294/ Salineno	Starr	1	LA	unknown	unknown																
41WB20/ Arroyo de los Muertos	Webb	3	UP	flexed	yes			y	y			y						y			
41WY50	Willacy	1	LA	flexed	yes					y						y			y		y
41WY67	Willacy	1	UP	unknown	unknown																
41WY113	Willacy	1	LP	unknown	no																
41ZP2/ Castillo	Zapata	1	UP	unknown	yes			y									y			y	y
41ZP7/ Beacon Harbor	Zapata	6	LP	flexed	yes			y	y	y			y				y				y
41ZP8/ Hayne's Point	Zapata	1	UP	flexed	yes																y
41ZP61/ Garcia	Zapata	2	UP	unknown	yes			y													
41ZP85	Zapata	1	UP	unknown	yes					y							y				
41ZP144	**Zapata**	**1**	**LP**	**flexed**	**yes ****													**y**		**y**	
41ZP254	Zapata	3+	EA-LP	flexed	no																
Southern Island	Tamaulipas	8-10	UP	flexed	yes		y	y	y	y			y				y			y	y
Toyah 1	Tamaulipas	4	UP	flexed	yes		y	y	y	y				y						y	
Rio Salado	Tamaulipas	1	UP	unknown	yes		y			y			y				y			y	
Arroyo Diablo	Tamaulipas	1	UP	unknown	yes				y												
Arroyo Centurion	Tamaulipas	1	UP	flexed	yes				y											y	
Scissors Island	Tamaulipas	1	UP	extended	yes			y													

* UP - unknown prehistoric; LP - Late Prehistoric, LA - Late Archaic; MA - Middle Archaic, EA - Early Archaic

** No associated artifacts were found during the 2012 exhumation of the burial. The 1991 investigations mention an associated core, mussel shell, and debitage (Warren 1992). However, since the skull, shoulder girdle, chest, and abdomen were destroyed during utility trenching grave items may also have been destroyed and lost at this time.

county (Boyd et al. 1997; Collins et al. 1969; Hester and Rodgers 1971; Matchen et al. 2010; Perttula 2001; Rader 1995; Terneny 2005; THC 2013). Three isolated burials are documented in Willacy County at archaeological sites 41WY50, 41WY67, and 41WY113 (Bousman et al. 1990; Day et al. 1981; Kibler 1994). The remains at 41WY50, dated to the Late Archaic, were in a flexed position in association with a bone pin, a Sunray Venus clam scraper, and a *Busycon* conch shell pendant.

A single burial dating to the Late Archaic is recorded in Starr County at 41SR294 (THC 2013). Little information could be found on this interment. The Arroyo de los Muertos site (41WB20) was recorded by McGraw in Webb County. This site consists of three burials in flexed and semi-flexed positions. Debitage, shell tinklers, and over 800 bone and shell beads were recovered with the remains (McGraw 1983). Six sites in Zapata, in addition to the project area (41ZP144), have recorded burials. Three, 41ZP2, 41ZP8, and 41ZP85, are single interments. Grave inclusions consisted of 94 bone beads, Tortugas dart points, and Clear Fork gouges (Boyd 1997; Boyd et al. 1997; Cason 1952; Perttula 2001). Multiple burials, at least 11, were recorded at sites 41ZP7, 41ZP61, and 41ZP254. Bone and shell beads, perforated canine and human teeth, *Busycon* conch pendants, bone tools, and Matamoras, Catan, and Caracara projectile points were associated with two of the burials (41ZP7 and 41ZP61; Boyd et al. 1997; Cason 1952; Perttula 2001; Wilson and Hester 1996).

Six additional sites with human burials have been recorded near the project area in Tamaulipas, Northern Mexico, at the Falcon Reservoir. Several of the sites were discovered as changing lake levels exposed human

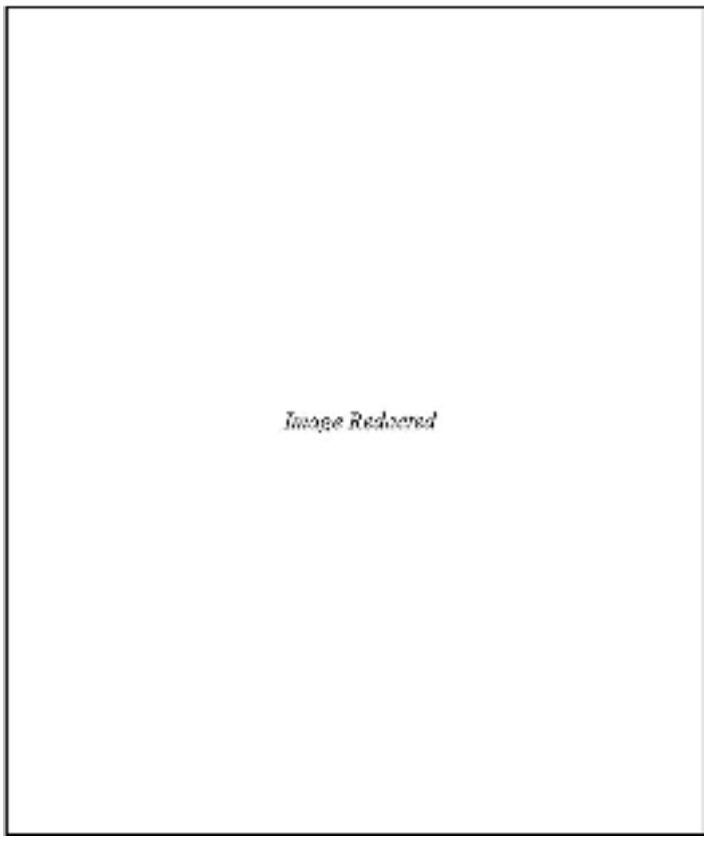

Figure 4-2. *Far South Texas archaeological sites containing burials.*

remains. The Southern Island site and the Toyah 1 site both contained multiple interments in flexed positions (Boyd et al. 1997). Numerous grave items were exposed with the burials including stone pipes, bone and shell beads, perforated canine teeth, conch shell pendants, ochre, Matamoras, Catan, and Caracara projectile points, bone rasps and awls, and Clear Fork gouges. Two biface caches, containing 27 and 50 tools, respectively, were associated with the Toyah 1 burials. The Rio Salado, Arroyo Diablo, Arroyo Centurion, and Scissors Island sites contained single interments with associated grave items (Boyd 1996, 2000; Boyd and Wilson 1998; Hester et al. 2000; Taylor 1995). Tortugas points, bifaces, a stone pipe, bone and shell beads, shell ornaments and perforated canine teeth were documented.

All burial positions are flexed (where descriptive information was available), with the exception of the burial from Scissors Island in Tamaulipas (see Table 4-2). Abundant grave items were included with most of the burials including bone beads, *Marginella apicinia* shell beads, *Busycon* conch columella beads, *Oliva sayana* shell beads and tinklers, *Busycon* conch shell pendants, and perforated canine teeth. Exceptions are 41WY113 and 41ZP254 that are both documented as having no burial artifacts. These mortuary traditions are characteristic of Late Prehistoric Brownsville Complex cemeteries.

The Brownsville Complex (MacNeish 1947) is thought to be primarily associated with archaeological sites in the Rio Grande Delta, i.e., Cameron, Hidalgo, and Willacy Counties. However, Terneny (2005) suggests that characteristics of the Brownville Complex are found in much of South Texas as far west, north, and east as Val Verde, Burnet, and Brazoria Counties, respectively. Although many of the South Texas sites outside of the Rio Grande Delta only contain a few of the mortuary traits, burial sites from the Inland Rio Grande sub-region (Perttula 2001:51), including Zapata and Webb Counties, and the Falcon Reservoir, contain abundant traits associated with the Complex. Terneny concludes that the similarity of mortuary traditions suggests that the inland and coastal Late Prehistoric populations were regularly interacting (Boyd et al. 1997; Terneny 2005). Furthermore, based on burial artifacts and radiocarbon assays from the Floyd Morris site (41CF2), Terneny proposes that a specialized shell industry was already in place during the Archaic Period.

Chapter 5: Summary

The Center for Archaeological Research at The University of Texas at San Antonio was contracted by Zapata County to remove human remains from archaeological site 41ZP144. This report discussed the exhumation that occurred from December 18-20, 2012. The burial was accidently unearthed and reburied under street pavement in 1991 (Warren 1992). The principal goal of CAR's excavation was to remove, analyze, and prepare the human remains for subsequent reburial in the Zapata County cemetery or for repatriation by a Federally Recognized Indian tribe. The work included monitoring of the mechanical excavation of pavement and road base and the hand-excavation of two 1-x-1 m test units in 10 cm arbitrary levels.

The archaeological work resulted in the recovery of a partially intact adult female Native American skeleton located approximately 40 cm below the existing street pavement. One radiocarbon bone sample processed in 1991 produced a date of AD 1400 (Late Prehistoric). Portions of the skeleton disturbed in 1991 were missing. The remaining bones were in poor condition from road construction and years of vehicular traffic. No associated grave items were noted. Faunal bone, mussel shell, a lithic tool, debitage, burned rock, ceramics, glass, nails, and metal fragments were recovered in the road base.

Given the absence of associated artifacts, it is not possible to ascribe tribal affiliation to the individual. The burial location is within the region of South Texas first inhabited by the Coahuiltecans and later by the Apaches. The Coahuiltecan name was assigned to the regional populations by the Spanish explorers. It represented hundreds of small bands that were spread across the region from Nuevo Leon and Tamaulipas, Mexico, to South Texas. As such, the Cohuiltecan term does not identify a Federally Recognized tribe. Apache tribes entered Texas relatively late in time, appearing in the Panhandle region in the 1500s and in south Texas in the 1700s. The CAR entered consultation with the Mescalero Apache Tribe of the Mescalero Reservation of New Mexico. The Mescalero are the only Federally Recognized Indian tribe claiming Zapata County as aboriginal lands. The Mescalero Apache claimed the remains. Appropriate notices were filed with the U.S. Department of the Interior National NAGPRA program. No representatives of other Federally Recognized Indian tribes claimed ownership or control of the human remains. The individual is to be reburied in the Zapata County cemetery by representatives of the Mescalero Apache Tribe.

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Appendix A:
Burial Forms

Appendix A

Burial Forms

INVENTORY RECORDING FORM FOR COMPLETE SKELETONS

Site Name/Number 41ZP144 Observer C. Munoz

Feature/Burial Number 1 Date 1/22/13

Burial/Skeleton Number 1

Present Location of Collection UTSA-CAR

CRANIAL BONES AND JOINT SURFACES

	L(left)	R(right)		L	R
Frontal			Sphenoid		
Parietal			Zygomatic		
Occipital	2	2	Maxilla		
Temporal			Palatine		
TMJ			Mandible		

POSTCRANIAL BONES AND JOINT SURFACES

	L	R		L	R
Clavicle			Os Coxae	1	1
Scapula			Ilium	1	1
Body			lschium	1	1
Glenoid f.			Pubis	1	1
Patella			Acetabulum	1	1
Sacrum	1	1	Auric. Surface	1	1

VERTEBRAE (individual)

	Centrum	Neural Arch
C1		
C2		
C7		
T10		
T11		
T12		
L1		
L2		
L3		
L4		
L5		

VERTEBRAE (grouped)

#Present# Complete

	Centra	Neural Arches
C3-6		
T1-T9		

Sternum: Manubrium ____ Body ____

RIBS (individual)

	L	R
1 St		
2nd		
11th		
12th		

RIBS (grouped)

#Present/# Complete

	L	R	Unsided
3-10			

Series/Burial/Skeleton 1
Observer/Date C. Munoz/1/22/13

LONG BONES

		Diaphysis			
	Proximal Epiphysis	Proximal Third	Middle Third	Distal Third	Distal Epiphysis
Left Humerus					
Right Humerus	2	1	1	2	2
Left Radius					
Right Radius	3	2	2	3	
Left Ulna					
Right Ulna	3	2	2	3	
Left Femur	1	1	1	1	3
Right Femur	3	1	1	1	3
Left Tibia	3	1	1	1	3
Right Tibia	3	1	1	1	3
Left Fibula	3	1	1	1	3
Right Fibula	3	1	1	1	3
Left Talus	2				
Right Talus	2				
Left Calcaneus	2				
Right Calcaneus					

HAND (# **Present/# Complete)**	L	R	Unsided
# Carpals		1/1	
#Metacarpals			
#Phalanges			

FOOT (# **Present/# Complete)**	L	R	Unsided
#Tarsals	2/0	1/0	
#Metatarsals			
#Phalanges			

Comments:

The individual was partially disturbed and destroyed by a mechanical backhoe in 1991. The remaining bones were in poor condition. The long bones were badly fragmented in situ and the epiphyseal ends that were not completely degraded were crushed flat. Small specs of bone, in situ, in the area of the feet appear to be all that was left of the metatarsals and phalanges. All that was left of the skull was an occipital fragment.

ADULT SEX/AGE RECORDING FORM

Site Name/Number	41ZP144	Observer	C. Munoz
Feature/Burial Number	1	Date	1/22/13
Burial/Skeleton Number	1		
Present Location of Collection	UTSA-CAR		

SEX

Pelvis	L	R	Skull	L	M	R
Ventral Arc (1 -3)	1	1	Nuchal Crest (1 -5)			
Subpubic Concavity (1 -3)			Mastoid Process (1 -5)			
Ischiopubic Ramus Ridge (1 -3)	1	1	Supraorbital Margin (1-5)			
Greater Sciatic Notch (1 -5)			Glabella (1 -5)			
Preauricular Sulcus (0-4)	1	1	Mental Eminence (1 -5)			
Estimated Sex, Pelvis (0-5)	1	1	Estimated Sex, Skull (0-5)			

Comments:
Pelvic morphology is female. Skull elements are missing. Measurement of the femoral head resulted in ambiguous sex.

Series/Burial/Skeleton 1

Observer/Date C. Munoz/ 1/22/13

AGE

Pubic Symphysis	L	R		**Auricular Surface** (1 -8)	L	R
Todd (1-10)						
Suchey-Brooks (1 -6)						

Suture Closure (blank = unobservable; 0 = open; 1= minimal; 2 = significant; 3 = complete)

External	1. Midlambdoid		**Palate**	11. Incisive	
Cranial	2. Lambda			12. Anterior Median Palatine	
Vault	3. Obelion			13. Posterior Median Palatine	
	4. Anterior Sagittal			14. Transverse Palatine	
	5. Bregma		**Internal**	15. Sagittal	
	6. Midcoronal		**Cranial**	16. Left Lambdoid	
	7. Pterion		**Vault**	17. Left Coronal	
	8. Sphenofrontal				
	9. Inferior Sphenotemporal				
	10. Superior Sphenotemporal				

Estimated Age:		
	Young Adult (20-35 years)	X
	Middle Adult (35-50 years)	X
	Old Adult (50+ years)	

Comments:

The pelvis was too fragmented to assess age changes. The skull was destroyed in 1991. Joint surfaces of the right proximal humerus, left proximal femur, left proximal tibia, and the S1 surface of the sacrum presented no arthritic change suggesting that this was not an old adult.

CRANIAL AND POSTCRANIAL MEASUREMENT RECORDING FORM: ADULT REMAINS

Site Name/Number:	41ZP144	Observer:	C. Munoz
Feature/Burial Number:	1	Date:	1/22/2013
Burial/Skeleton Number:	1		
Present Location of Collection:	UTSA-CAR		

Record all measurements to the nearest millimeter; in the case of bilateral measurements, take measurement on the left side. If right side is substituted, place an "R" next to the measurement. If bones are fragmented, measurements should not be taken, but dimensions should be estimated for minor erosion or reconstruction; identify these with an asterisk "*".

Cranial Measurements

1. Maximum Cranial Length:		18. Interorbital Breadth:	
2. Maximum Cranial Breadth:		19. Frontal Chord:	
3. Bizygomatic Diameter:		20. Parietal Chord:	
4. Basion-Bregma Height:		21. Occipital Chord:	
5. Cranial Base Length:		22. Foramen Magnum Length:	
6. Basion-Prosthion Length:		23. Foramen Magnum Breadth:	
7. Maxillo-Alveolar Breadth:		24. Mastoid Length:	
8. Maxillo-Alveolar Length		25. Chin Height:	
9. Biauricular Breadth:		26. Height of the Mandibular Body:	
10. Upper Facial Height:		27. Breadth of the Mandibular Body:	
11. Minimum Frontal Breadth:		28. Bigonial Width:	
12. Upper Facial Breadth:		29. Bicondylar Breadth:	
13 Nasal Height:		30. Minimum Ramus Breadth:	
14. Nasal Breadth:		31. Maximum Ramus Breadth:	
15. Orbital Breadth:		32. Maximum Ramus Height:	
16. Orbital Height:		33. Mandibular Length:	
17. Biorbital Breadth:		34. Mandibular Angle:	

Series/Burial	1
Observer/Date	C. Munoz/ 1/22/13

Record all measurements to the nearest millimeter; in the case of bilateral measurements, take measurement on the left side. If right side is substituted, place an "R" next to the measurement. If bones are fragmented, measurements should not be taken, but dimensions should be estimated for minor erosion or reconstruction; identify these with an asterisk "*".

Postcranial Measurements

35. Clavicle: Maximum Length		57. Os Coxae: Illiac Breadth:	
36. Clavicle: Ant.-Post. Diameter at Midshaft:		58. Os Coxae: Pubis Length:	
37. Clavicle: Sup.-Inf. Diameter at Midshaft:		59. Os Coxae: Ischium Length:	
38. Scapula: Height:		60. Femur: Maximum Length:	~440 R (in situ)
39. Scapula: Breadth:		61. Femur: Bicondylar Length:	
40. Humerus: Maximum Length:		62. Femur: Epicondylar Breadth:	
41. Humerus: Epicondylar Breadth:		63. Femur: Maximum Diameter of the Femur Head:	46.45
42. Humerus: Vertical Diameter of Head:		64. Femur: Ant.-Post. Subtrochanteric Diameter:	23.35
43. Humerus: Maximum Diameter at Midshaft:		65. Femur: Medial-Lateral Subtrochanteric Diameter:	30.74
44. Humerus: Minimum Diameter at Midshaft:		66. Femur: Anterior-Posterior Midshaft Diameter:	
45. Radius: Maximum Length:		67. Femur: Medial-Lateral Midshaft Diameter:	
46. Radius: Anterior-Posterior Diameter at Midshaft:		68. Femur: Midshaft Circumference:	
47. Radius: Medial-Lateral Diameter at Midshaft:		69. Tibia: Length:	
48. Ulna: Maximum Length:		70. Tibia: Maximum Proximal Epiphyseal Breadth:	
49. Ulna: Anterior-Posterior Diameter:		71. Tibia: Maximum Distal Epiphyseal Breadth:	
50. Ulna: Medial-Lateral Diameter:		72. Tibia: Max. Diameter at the Nutrient Foramen:	
51. Ulna: Physiological Length:		73. Tibia: Med.-Lat. Diameter at the Nutrient Foramen:	
52. Ulna: Minimum Circumference:		74. Tibia: Circumference at the Nutrient Foramen:	
53. Sacrum: Anterior Length:		75. Fibula: Maximum Length:	
54. Sacrum: Anterior Superior Breadth:		76. Fibula: Maximum Diameter at Midshaft:	
55. Sacrum: Max. Transverse Diameter of Base:		77. Calcaneus: Maximum Length:	
56. Ox Coxae: Height:		78. Calcaneus: Middle Breadth:	

The University of Texas at San Antonio - Center for Archaeological Research

BURIAL RECORD

Site 41ZP144
Record No. _____

Subject: Skeletal Remains of a portion of 1 individual - San Ignacio

Horizontal location: _____

Skull elev.: 50-54 cmbd **From surface:** — **Pelvis elev.:** 49-60 cmbd **From surface:** —

Stratigraphic relationships: All between 50-60 cmbd, All portions within boundaries of TU-1's except lower Tibia and possible foot bones.

Evidence of being intrusive: None

Grave fill: Silty clay, cement-like compacted. Very dry 10YR6/4 Munsell. A small amount of pebble gravels is noted (10%)

Fill into which grave was dug: Soils are disturbed due to trench that was previously dug in 1992 and revisited in 2012.

Grave dimensions: 90 cms. from W. to E. in TU-1; 82 cms from S. to N within both TU-1 & TU-

Type of burial: Flexed **Preservation:** Poor

Position of skeleton: Cranium is in SE corner Region of the unit; Knee bones are in NW side. Foot bones & Tibia portion goes Northwa

Orientation: SE-NW **Direction of skull:** SE in TU-1 **Facing:** West

Posthumous shifting of bones: Yes, arm & Skull were moved for wrapping with plastic. Abdomen & most of cranium was removed when Trench was cut in 1992.

Bones absent (or present): →

Age: @400 **Sex:** unknown **Pathology:** None Known

Associated objects (itemize): None Flakes, 1 Core & muscle shell according to the 1992 report.

Remarks: Right femur length is 44cms. long.

Exposed by: Cindy Munoz, Stephen Smith, Cyndi Dickey

Disposal of specimens: Re-burial

Cat. nos.: _____

Reference: _____

Photo ref.: _____ **Recorded by:** Cyndi Dickey **Date:** 12-20-2012

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Revised 3/99