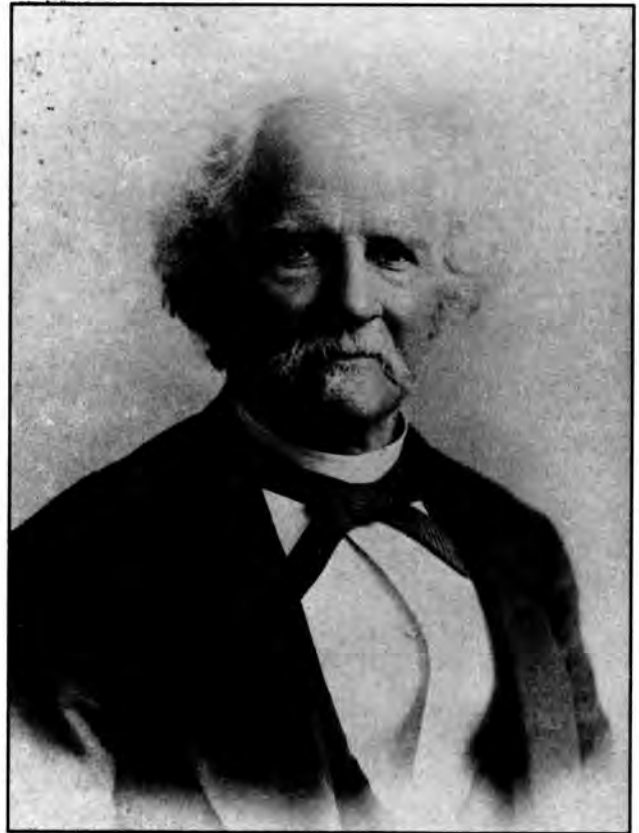


LA TIERRA



ADOLPHUS HEERMANN



THEODORE HEERMANN

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LA TIERRA

QUARTERLY JOURNAL OF THE SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION

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Evelyn Lewis
Editor

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About the Cover: The two gentlemen shown were early residents of south Bexar County along the Medina River. Through the efforts of many STAA members' research and archaeological field school work we will learn about them in this volume devoted to their lives and accomplishments.

Manuscripts for the Journal should be sent to: Evelyn Lewis, Editor, *La Tierra*, 9219 Lasater, San Antonio, Texas 78250. Past issues of the Journal and Special Publications available by requesting an order form from STAA (Jim Mitchell), P. O. Box 791032, San Antonio, Texas 78279. Dr. T. R. Hester may be contacted at the Texas Archeological Research Laboratory, PRC 5, 10100 Burnet Rd, Austin, Texas, 78712-1100.

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NOTES ON SOUTH TEXAS ARCHAEOLOGY 1995-2 *On the Promise and Perils of Field Schools*

Thomas R. Hester

This issue of *La Tierra* contains the results of the 1994 field school sponsored by the Southern Texas Archaeological Association. The STAA and authors are to be congratulated for such rapid publication of the field investigations. The editor, Evelyn Lewis, offered me the opportunity to provide some comments on field schools, and I thought it an appropriate place to make some observations on the potential and problems of such archaeological events.

Field schools have a long tradition in Americanist archaeology. There are a myriad of university field schools offered every summer, involving fieldwork, not only in North America but also in other parts of the world. These field schools are typically populated by undergraduates, some of whom learn, through the field school experience, whether or not they will continue to be interested in archaeology! For most, it is their first exposure to the aches and pains of archaeology, the bureaucracy of recording, and nights filled with fighting mosquitoes or trying to stop their tents from leaking in a thunderstorm. Oddly, most of the field school students claim to have enjoyed the experience, though few of them go on to professional careers in archaeology. They do establish long-term friendships and sometimes, professional connections that last through the years (at the recent Society for American Archaeology meetings in Minneapolis, one of my 1973 Berkeley field school students was sitting on the Executive Board of the SAA, and another, teaching in North Dakota, approached me, and the SAA name tag rescued me from the embarrassment of not remembering her name!).

Field schools sponsored by avocational archaeology groups also have a long history. Many of the facets of the university field school are shared in these, but the avocational field schools are usually much shorter (a week or so). The Texas Archeological Society has been holding summer field schools for more than 30 years and the camaraderie established among the participants carries on from year to year. But even among well-established field school programs, like that of the TAS, problems exist. A great deal of planning and hard work by a relatively small number of members goes into a

successful field school. The weather can make or break it, no matter how careful the planning. The principal investigator (PI) is a professional archaeologist who has not only a multitude of responsibilities in planning and executing the field school – but also the obligation of making sure it is properly recorded. As TAS field schools have grown in both numbers and research goals, the costs have increased. Many of these costs are related to adequate funding for the professional staff, especially when it comes to the responsibility of writing the report. Still, in comparison to equivalent grant or contract-funded archaeology, the funding remains unrealistic. It is left to special committees, like the one headed by Bill Richmond of Austin, to continue to work with the PIs to bring reports to completion and publication.

I see several problems associated with both professional and avocational field schools. Adequate *funding* is perhaps most critical; neither types of field schools (usually) have truly adequate support. I have in my stack of unfinished projects a number of professional field schools that I have directed. They haunt you. Sometimes a student takes on the field school report as an MA or Ph.D. project; some are very prompt, while others bail out on you three or four years later, leaving the data cold and scattered. And, sometimes a graduate student rescues you (and your conscience) by writing up a field school that has gone unpublished for a number of years! Because of the time lag in field school reports (and here I mean full and detailed interpretative studies), one must ensure that there is *proper curation* in an established repository for both the records and the artifacts. But most of all, when a field school is anticipated, one must seriously ask "Is it necessary?" Many years ago, the Society for American Archaeology set forth policies regarding university annual summer field schools. In short, it said that such field schools should not be just for training and just for digging up a site – but rather, it should be *problem-oriented*. This admonition should be critical in the planning of any professional or avocational field school. I think a further consideration should be whether or not this is the best use of professional or

avocational time and money. Should surveys be encouraged over digging? Will there be an adequate funding and time commitment for the lab work — the onerous tasks after the fun of digging? Should the time and funding be used to complete the *report, lab, and curation obligations* incurred by earlier field schools? Professionals and avocationalists alike consistently ignore these concerns, but I think we are reaching a point in terms of site resources and ethical responsibilities

where they can no longer be dismissed. By raising these issues, I do not mean to suggest a halt to digging; I consider high quality excavation to be the best form of "preservation" (lots of "preserved" sites get looted or otherwise destroyed). Rather, I think that avocational societies and universities need to take a hard look at the way field schools are done, and most especially at what takes place after the field work is over.

THE LOSS OF LEGENDS

In the span of just two weeks, archaeology lost two important figures, J. B. Sollberger and Thomas C. Kelly. Mr. Sollberger died on May 7 in Dallas, and Col. Kelly, May 21 in San Antonio. Obituaries will appear in later issues of this, and other, journals.

Sollberger had achieved an international reputation as an experimental flintknapper, but was also an active avocational archaeologist, recognized with the Crabtree Award by the Society for American Archaeology. His demonstrations of flintknapping dexterity and his careful study of tool manufacture and function were well known to STAA members.

Kelly made important contributions to Texas archaeology, through papers in the *Bulletin of the Texas Archeological Society*, while he was on active duty in the U.S. Air Force. He later worked as a professional archaeologist at, and received his MA from, The University of Texas at San Antonio. He was a stalwart of the STAA, but was also widely known, on an international basis, for his studies of Paleoindian typology and his sustained fieldwork in Belize.

Both men were legends in their archaeological work, their personalities, and the influence they exerted. Their passing is indeed a loss to us all.

Thomas R. Hester

IN MEMORIA: BROMLEY F. COOPER

Anne Cooper

December 1994 was the 10th anniversary of Brom Cooper's death. In his honor, my mother, his widow Martha Cooper, is endowing a fellowship in his name at The University of Texas at Austin for graduate student studies in South Texas Archaeology. Along with the endowment his entire artifact collection will be donated to the Texas Archeological Research Laboratory at The University of Texas at Austin. Donations can be made to the Bromley F. Cooper Endowed Fellowship through the Development Office (attn. Janis Richards), The University of Texas at Austin, Austin, TX 78712.

My father was born in 1916 in Duluth Minnesota. He grew up in the North, and became a Texan by choice in the 1940s. He met my mother, Martha Buhler, a dark-eyed beauty from Victoria, while serving as a pilot trainer at Foster Field during World War II. After serving in the Army Air Corps, he took a job with Humble Oil and Refining Company (later to become Exxon) and settled with his family in Houston.

I remember my father as intelligent, passionate, eccentric, obsessed, shy and opinionated, with a wonderful sense of humor. He was a loving father, and a devoted husband. With a keen passion for knowledge, he was an insatiable reader. His taste in literature was eclectic, ranging from pulp fiction by Dick Francis or Stephen King to *The Egyptian Book of the Dead* and the *Dancing Wu Li Masters* with much in between. He subscribed to *Scientific American* and *Archaeology Today*, along with *National Review* and other conservative periodicals. Although I did not always agree with my father I respected his mind and learned much from him. I enjoy classical music and am passionate about gardening, experiences that I learned to love from him. His list of hobbies indicated his curiosity and interest in life. Besides gardening, reading, and music he enjoyed bike riding, he raised tropical fish and he loved fishing and baking bread. But the hobby that would be all consuming for him did not come along until his fateful transfer by Exxon to Kingsville in the mid-1960s.

Although not happy about the move initially, he soon learned to love South Texas. Daddy was not a city man, he had no interest in those cultural events that make a city a worthwhile place to live. My father was basically a loner. He preferred working quietly in his garden, riding his bike, reading or fishing in the peaceful dawn twilight at Port O'Connor. Although he had friends and acquaintances, the silence of solitude seemed a powerful draw to him. The move to Kingsville turned out to be a blessing. It offered the serenity he loved, the warm climate he enjoyed and access to millions of acres of rangeland for his new-found passion, "arrowhead hunting," as he called it. He used to say that if he died out in the "boondocks" looking for Indian artifacts, he would die a happy man.

South Texas' flat cactus-strewn wastelands were heaven on earth to my father. The huge expanse of sky, the hawks circling overhead, even the rattlesnakes at his feet were an elixir for his soul. Finding points was a bonus. He rode his bicycle 20 miles a day to keep in shape, and spent weekends out in the countryside. He anthropomorphised the points, he jokingly talked of hearing their mating calls, and of course, the tiny, delicate "birdpoints" were the offspring.



Brom Cooper

Interest in science was another of his passions. In the 1930s he graduated from Michigan State University with a degree in entomology. Although not pursuing this as a career he never lost his love of the scientific method. As his Indian artifact collection grew so did his research in archaeology, he started studying the history of the area, and what was known about stone artifacts. He became an expert at point identification, and early on kept accurate records on the locations of his discoveries. (Daddy was a prodigious record keeper, when told by his GP that he had high blood pressure, he bought his own blood pressure kit, and took a measurement at a certain hour each day and graphed the readings out over years!) He worked with The University of Texas at San Antonio, loaning them portions of his collection for documentation. He found ancient Paleo-Indian points in the area. His work led to one of the most outstanding collections of Paleo-Indian points found in South Texas, and its contribution to the archaeological knowledge of the area has been invaluable.

Although a fierce individualist and a loner, he had enormous respect for science and those who pursued the truth through scientific investigation. He loved South Texas, and he loved the unique and interesting life he created there for himself. We miss him.

41BX527: THE HISTORY OF PROPERTY OWNERSHIP WITH AN EMPHASIS ON THE RESIDENCY OF THEODORE HEERMANN

Cheryl Lynn Highley and V. Kay Hines

ABSTRACT

The history of the ownership of the property containing 41BX527 spans the period from 1808 to the present. The history recounted here will focus on the years between 1855 and 1896 when Dr. Theodore Heermann owned the property. Several buildings, whose construction can be attributed to Dr. Heermann, have been the focus of archaeological and historical research since 1981. Recently, contact with descendants of Theodore Heermann has resulted in a wealth of information regarding the oldest structure. In addition, much was learned about Dr. Heermann, his family, and their lives during the latter half of the 19th century.

41BX527: DISCOVERY OF HISTORIC STRUCTURES AND PRELIMINARY OBSERVATIONS

Archaeological investigations in 1981 revealed the presence of three structures on the study property: an uncompleted three-story stone building (also described as a partially collapsed, two-story stone building with oval windows), a two-story stone barn, and a wood-frame structure (McGraw and Hines 1987:162, 164, 166). Both stone structures were believed to date from the late 19th/ early 20th century while the wooden structure appeared to date from the early to mid-20th century (ibid.:162).

Structure #1: Three-Story Stone Building

This structure was initially identified in 1974 (Hester 1975) but was not formally recorded until 1981 (McGraw and Marshall 1981:37-38). McGraw and Hines (1987:162) speculated that the partially collapsed, multi-roomed, three-story stone structure was probably a non-private residence such as a hotel or hospital; local residents reported that it was intended to be used as a sanatorium. Archival research at that time failed to establish who built the structure or its intended purpose (ibid.). The structure was made of cut and dressed stone; an adjacent underground, stone-lined cistern was located on the west side. An initial "H" was carved into a lintel over an entrance on the west side of the building while a hex sign was carved into a lintel on the east side of the structure (McGraw and Hines 1987: 166).

McGraw and Hines (1987) recommended the site be eligible for listing on the National Register of Historic Places and that additional archival research be conducted. Preservation of the site was urged.

Additional archival research in 1989-1990 sug-

gested that the ruin may have been an uncompleted home built by Theodore Heermann (Hines 1991:18; see photo, next page). Investigative work by Southern Methodist University (SMU) provided an architectural assessment of the ruin:

It is constructed of very high quality course stone and is approximately 150 ft. (45.7 meters) long by 25 ft. (7.6 meters) wide. All of the stone is quarry-faced masonry with little tooling...The window sills are smooth-faced stone with flat-arched window heads made of quarry-faced stone. There is indication that a wood structure used for all of the flat arches was installed, but has since been removed or rotted away.

The structure has a full basement spanning its length. The building appears to have never been finished. Its northern end includes a corner of built-up masonry, as if a second story had been planned. There is a vaulted cistern at the rear of the building. Several cut-stone fireplace openings are present, above one of which in the south wall is an oval window. There are no flues except in the south wall, where a single flue goes around the oval window and opens up at the top. A low wall, which spans the entire length of the rear of the building, is apparently a retaining wall created to adjust soil heights at the entryways to the building [Green, Moir and Hines 1992: 6.18].

At this time the assessment was made that the ruinous condition of the structure rendered it ineligible for inclusion in the National Register under the criterion of architectural significance (ibid.:6.18-6.19).

In 1994 Dr. Stan Casto contacted descendants of the Heermann family regarding research he was conducting on the life of Adolphus Heermann, brother of Theodore

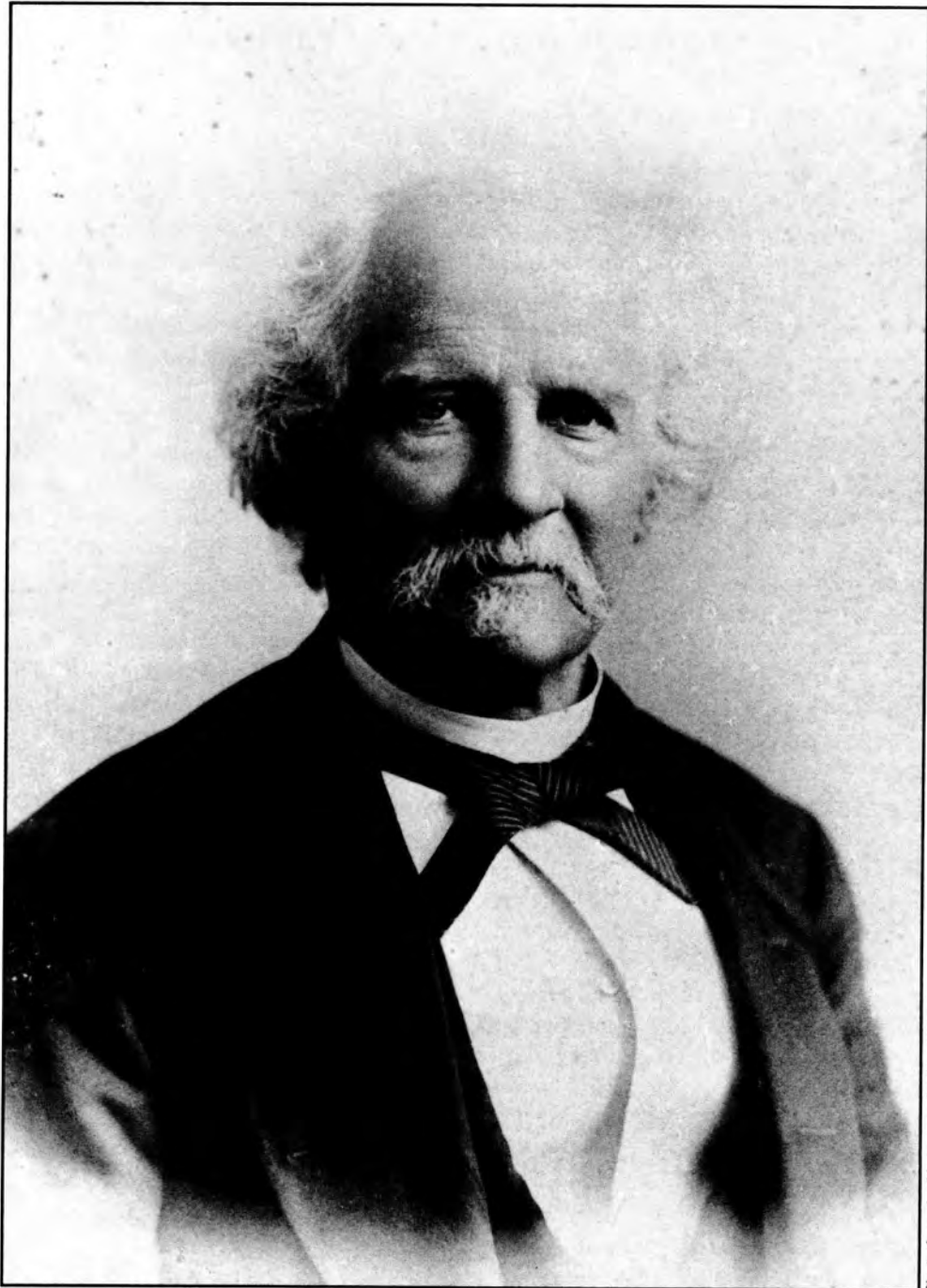


Photo from the Heermann family papers

THEODORE HEERMANN
Physician, Soldier and Rancher

(Stan Casto, personal communication). Conversations with Jackie Falbo, great-great-granddaughter of Theodore, revealed that she had many of Theodore's personal documents and journals. Included in the papers was an 1856 contract with Samuel Hall for construction of "dwelling house" on the property near the Medina River (Heermann family papers). The detailed descriptions within the contract lead us to believe that the contract refers to the three-story structure described above. The multi-roomed structure was intended to be Theodore's home. In addition, an obituary for Theodore Heermann describes the ruins as his mansion with the explanation that the home was never completed because of romantic disillusionment. Specific information regarding the contract and the structure, as well as the obituary are included below in the section dealing with Theodore Heermann's ownership of the property.

Structure #2: Two-Story Stone Barn

The structure identified as a barn had three stages of modification as determined by the changes in mortar, stone size, and lintel treatment (McGraw and Hinds 1987:164). A date of 1886 was carved into a keystone (ibid.). McGraw and Hinds (ibid. 166) observed that the structure was reminiscent of stone buildings found throughout the Hill Country with the lower floor serving as a barn and the upper floor providing living quarters.

In 1989-1990 the following architectural assessment was made of the barn:

[It] ... is constructed of very dense coursed sandstone with tightly tucked mortar joints ... two large areas at each side of the central area ... appear to originally have been designed for tractor or wagon storage. Attic storage is for silage with plank doors open to allow distribution to the outside of the barn The one-and-a-half story structure appears to have wire nails in all of the wooden elements. The stone appears to be of very high quality, with large stones on the exterior of the building and small rubble construction on the inside. Lime mortar appears to be used throughout the wall The roof structure is all modern framing with modern corrugated metal There are small square openings at the end of each gable that open into the attic for air circulation ... it does not appear that this is an architecturally significant structure [Green, Moir and Hinds 1992: 6.18].

Unfortunately, the Heermann family papers that have been examined to date do not provide additional information regarding this structure.

Structure #3: Wood-Frame Structure

The wood-frame structure is a small domicile typical of turn-of-the-century board and batten structures (McGraw and Hinds 1987:166). Investigations of this structure were not conducted in 1981 as it was occupied by ranch hands (ibid.). To date, the house continues to be occupied by ranch hands; further research has not been conducted in regards to its history and/or construction.

Other Structures and Features

Other structures and features present on the property include a gazebo that can be attributed to Theodore Heermann's period of ownership, a cement pavilion that served as a dance floor, a pole barn, several small outbuildings, and a stone-lined roadway (Green, Moir and Hinds 1992:6.15-6.16). Sometime after 1938, a gravel-extracting operation impacted a large area and probably resulted in the destruction of four buildings that appear on 1938 aerial photographs. The largest of these structures may have been Theodore's home that post-dates the stone ruins (ibid.: 6.16). Test excavations conducted at the site by SMU are discussed in Green, Moir and Hinds (1992:6.16-6.17; Table 6.4).

THE HISTORY OF PROPERTY OWNERSHIP

1808-1855

Archival research revealed that the study property was originally a part of the extensive 1808 Spanish Colonial grant of Lieutenant Colonel Juan Ygnacio Pérez (BCDR Vol. E2A:67-71; GLO Vol. 50; McGraw and Hinds 1987:111). Pérez was granted four *sitios* of land on the south bank of the Medina River and one league of land on the north bank (ibid.). More specific information regarding the Pérez land grant is discussed in McGraw and Hinds (1987:108-127) and Hinds (1992:4.3-4.4).

In 1838 Nicholas Mosby Dawson, a veteran of the Battle of San Jacinto and an early Texas Republic Ranger, received a headright grant to the land but never established residence (BCA Headrights:98; McGraw and Hinds 1987:162). The property, consisting of 1476 acres, was surveyed by William Lindsey on August 12, 1838 (BCA Surveyor's Field Notes, Book A1:54) and patented in 1844 by the Republic of Texas (BCDR Vol. K2:478). The 1840 Census of the Republic of Texas, Bexar County, listed Dawson as owning the property based on a grant but without a confirmed title by the Texas General Land Office (White 1966). Dawson was killed in 1842 in an encounter known as Dawson's Massacre during General Woll's invasion of San Antonio (Webb 1935:45-46, 73-74; McGraw and

Hindes 1987: 162).

In 1852 John Hancock purchased 438 acres out of the original survey from George and Frances C. Dawson, parents of Nicholas Dawson, of Bledsoe County, Tennessee (BCDR Vol. K2:478-479; Green, Moir and Hindes 1992: 6.15). Dr. Theodore Heermann bought the lower 738 acres from George Dawson in 1855 for \$2500 (BCDR Vol. N1:635-636; Green, Moir and Hindes 1992:6.15) and inherited an additional 876 acres out of the Rufeno Rodriguez survey from his brother, Adolphus L. Heerman, in 1865 (BCDR Vol. 14:348; Green, Moir and Hindes 1992.: 6.15).

1855-1912: Theodore Heermann and Valmont

Around 1850, Theodore, a physician, immigrated to Texas from Louisiana (Barnes 1910:241; McGraw and Hindes 1987:164). Little is known about his early years in Texas but in 1855, he purchased 738 acres along the Medina River (BCDR Vol. N1:635-636; Green, Moir and Hindes 1992:6.15). In 1856 he entered into a contract with Samuel Hall to erect a masonry dwelling on the property (Heermann family papers). Details regarding construction are included in the contract:

I ... Samuel Hall do hereby contract and agree to build or cause to be built all the masonry work on or about a dwelling house to be built on the Medina River for Dr. T. Heermann for and in consideration of the sum of three dollars per perch of twenty five cubic feet measured in the wall when built I ... agree to quarry and deliver all the stone and sand from such quarry or quarries or deposits as Dr. Heermann may direct and to furnish on the building site all the lime required, such lime to be of quality A No. 1. All mortar shall be made of one part lime and two parts sand I do furthermore agree that all of the stone work presenting towards the outside of the house shall be faced square and laid in regular courses, that all doors and windows throughout shall be arched and the corners of the house and wing and chimneys shall be blocked and furnished as Dr. Heermann may direct None but first-rate mechanics shall be employed I do ... agree to commence quarrying and hauling the materials necessary to the accomplishment of the above mentioned building on or before the first day of June 1856 and to commence laying the masonry on or before the twenty first of June 1856 and to keep constantly employed on the masonry not less than three mechanics with a proportionate number of labourers [Heermann family papers].

Theodore kept an account book or ledger (hereafter

referred to as the Valmont account book) between the years 1856 and 1873. The debit side of the book includes expenditures for county and state taxes, groceries, whiskey, medicine, tools and equipment (e.g., blacksmith's hammer, wagon boxes, and hardware), blacksmiths, tinsmiths, lumber, lime, cut stone, and paint. Names of the workers are provided. Details regarding the construction of this structure include amounts and types of materials used. While the contents of the lengthy account book cannot be included in this report, the following is offered as an example of the detailed nature of the book and information regarding construction for the mid-1850s stone structure:

1857	Credit
Dec	
To Six hundred perches of stone work put up on Dr. Heermann's farm at 3\$ pr. perch	1800.
To 50 perches material delivered 1 50/100	75.
To 25 perches quarried and not deliv. @ 50/100	12.50
To 15 perches rough material deliv. @ 1.12/100	16.80
To 42 perches of area wall at 3\$ pr. perch	126.00
To 78 ft. stone steps at 60 cts. per running foot, same setting	46.80
To setting 4 fire places and running up flues 1 story	40.00
To 64 perches dry stone wall at 2\$ per perch	128.00

An 1896 obituary for Theodore describes the stone ruins and relates that the stone structure was left unfinished because of a broken heart:

He started construction of the building and raised it to the second story. The material was of rock, rosebury wood, and white marble. It was said to have been a magnificent piece of masonry. He never finished it, however, and to-day it stands there covered with moss, with large trees growing from the cellar. It resembles the ruins of a castle.... When the building reached its present proportions, the story goes that he fell in love and that his love was not requited. He wooed a fair lady of this city, a widow, who still resides here, but she gave her hand to another, a prominent citizen now deceased When his love was spurned, he stopped work on the building and excluded himself from society and took up his abode in the country on the Medina, where he

married a Mexican lady He was a great lover of flowers, and to pass the time he started a flower garden. He secured flowers from all over the world and of every variety until he had the finest and most beautiful collection in this part of the country. This is all gone to wreck now [*San Antonio Daily Express*, April 8, 1896, p. 8].

On the cover of the account book (mentioned above) is handwritten "Acct Book No. 1 of Valmont." The ranch appears to originally have been called "Woodlands"; however, at some point in time, that name was marked through and the name "Valmont" was added below. One might speculate that Theodore felt the need to rename his ranch after the aforementioned romance fell apart. "Woodlands" would have been an appropriate descriptive name for the Medina River property. In regards to "Valmont," Theodore had a brother, Valentine Mott Heermann, who resided in Louisiana, and family members have suggested that Theodore may have named the ranch after this particular brother. The Valmont account book has many entries that provide information regarding life on this farm and ranch; see Highley (this volume) for a discussion of those entries and their implications.

In 1854, Theodore's brother, Adolphus L. Heermann, arrived in San Antonio and purchased 876 acres on the Medina River adjacent to his brother's property (BCDR Vol. M2:103). A well-known ornithologist, Adolphus often collected bird specimens, eggs, and nests along the Medina River (see Casto, this volume for details regarding his ornithological activities in the San Antonio area). Adolphus lived in and around San Antonio until his tragic death in 1865. Apparently as partners, Theodore and Adolphus engaged in farming and ranching pursuits and, at the same time, pursued individual interests and activities.

On May 2, 1857 the cattle brand of Adolphus and Theodore Heermann was filed in the Bexar County Courthouse (BCA, Record of Marks and Brands, Book B:285). The brand is listed in the *The Texas Stock Directory*, 1865, under the name "Theo. Heermann & Bro.," (Jackson and Long 1865:184). In 1859 Adolphus purchased 57 mares for \$1,140 from Pat. Letechipia with the mares being delivered to him on the Medina (Heermann family papers). The Valmont account book contains the name of many horses owned by Theodore from 1863 to 1873 with methodical entries regarding their pedigrees, marks, and brands (ibid.).

On October 12, 1861, Theodore Heermann was elected Captain of the Medina Guards, 30th Brigade, Texas Militia (McGraw and Hinds 1987:164; Heermann family papers). This group and other small militia

and Indian-fighting units in the area were necessary as "... above San Antonio, the Comanche danger was so acute that the frontier hung by a thread" (Fehrenbach 1968:377). When Rip Ford's company was organized into action during the Civil War, three companies, including Heermann's Medina Guards, were directed to remain on the Balcones Escarpment to protect the frontier (ibid.). Captain Heermann's company and another citizen company reportedly killed two renegades in their efforts to protect families in that area (Ford 1963:348).

Adolphus, by 1862, was suffering from *locomotor ataxia*, a chronic disease of the nervous system usually caused by syphilis (Stone 1907:4; Mearns and Mearns 1992:226-227). On January 19th, 1862 Adolphus wrote to General Magruder from New Orleans which, at that time, was being held by Union forces. Theodore and Adolphus had arrived in New Orleans on a pass, perhaps to visit their brother, Valentine, and his family. Theodore was detained by Union forces and wrote to Magruder for assistance in returning to Texas:

"... Finding myself in N. Orleans during the month of October last and being on the eve of an endeavour to break through the enemy's lines to escape ... I was prevented from so doing by the arrival of my brother Dr. A. L. Heermann from the north, whose helpless and crippled condition, arising from general paralysis, obliged me to resort to a parole-pass ... in order to bring him out of N.O. and into Texas I write to beg that if there be in your department any civil prisoner against whom I may be exchanged, you will oblige me" [Heermann family papers].

A pass was finally granted and Theodore and Adolphus were able to return to San Antonio although Theodore's allegiance to the Confederacy was questioned (Winkler and Friend 1963:834-835). Theodore composed a lengthy letter swearing his allegiance to the Southern cause (ibid.).

In March 1862 Theodore, as Enrolling Officer for Precincts 6 and 9, Bexar County, Texas compiled a muster roll of Captain Silas L. Stanfield's Company of Militia (Heermann family papers). A total of 96 names are entered including that of Private Theodore Heermann. This company was formed for home duty rather than field duty. Other information on the roster includes number of horses and small arms per man.

Henry Dresser, a prominent English ornithologist, visited Adolphus in San Antonio and lived with him from September 1863 until August 1864 (Stone 1907:4-5). Dresser related that Adolphus' "... younger brother

[Theodore] had some house property in San Antonio and a tolerably large rancho on the Rio Medina, a ride outside San Antonio" (ibid.:4). One of Theodore's houses in San Antonio was used as a private hotel and the house next to it was a three- or four-room bungalow which was used by Adolphus (ibid.). Deed records were searched but information regarding these property holdings was not located. The personal papers of Theodore indicate that he owned property in 1895 at the southwest corner of Market and Navarro Streets, the southwest corner of Market and Yturri Streets, and at the southeast corner of Villita and Presa Streets, but whether he owned these properties in 1863-1864 has not been determined.

As the Civil War progressed, Theodore joined the Confederate Army and served in the Engineer Corps and as an aide to Major General John Bankhead Magruder, commander of the Confederate forces in Texas, Arizona, and New Mexico during part of the war (Winkler and Friend 1963:116, 557-558, 834-835, 843-845, 849-850, 1019, 1029-1031). Information regarding Theodore's responsibilities during the war is provided in documents maintained by the family. On January 11th, 1864 Theodore was ordered to San Antonio by Major General Magruder:

"... to examine into the state and progress of the fortifications of that place, also to confer with Col. Ford and Maj. Dickinson upon the condition and progress of the expedition destined for the Rio Grande and to confer with Maj. Dickinson concerning the aid societies of San Antonio, and to ascertain the number of detailed men in their employ, by whose authority detailed, and to cause said men to be ordered back to their several commands" [Heermann family papers].

In the latter part of 1864, Theodore was relieved of his duty in the District of Texas and was ordered to report to the Chief Engineer in the District of Arkansas to serve as Assistant Military Engineer (Heermann Family Papers). In January of 1865, Theodore was instructed to make copies of the topographical maps of Arkansas and to employ as many draftsmen as would be required; specific instructions were added that "... the maps of the section of country embraced between the Ouachita and the Arkansas River is particularly desired, and even south of the Ouachita" (ibid.). Another document includes orders to purchase or impress a flat boat and establish a crossing at Lone Pine Ferry (ibid.). In February of 1865 Theodore was instructed "... to erect suitable cabins and stables, etc ..." at Lewisville, Arkansas (ibid.). On April 15, 1865, Theodore was relieved of

duties in Arkansas and ordered to report to Major General J. Bankhead Magruder in Texas once again (ibid.).

In 1865 Adolphus, while out hunting for birds, fell and accidentally shot himself; he died from the injuries. According to his will, Theodore was named sole benefactor and inherited Adolphus' Medina River property (BCDR Vol. 14:348; Green, Moir and Hindes. 1992: 6.15).

Felix Flores worked for Theodore and in the late 1850s, Theodore wrote in the Valmont account book that Felix was "... a good and trustworthy man" (Heermann family papers). Felix also served with Theodore in Stanfield's Militia in 1862 (see above; Heermann family papers). In 1870 Theodore married Felipa Flores, the daughter of Felix and Hilda (Parkins) Flores (San Antonio Metropolitan Health District, Statistical Services Division, Standard Certificate of Death). The marriage was preceded by an "ante-marriage contract" or a "dowry" agreement for the annual sum of \$400 in lieu of her interest in the estate of Heermann (BCDR Vol. 224:361; Hindes 1991:17). The \$400 sum was to be derived from the revenues of the farm and ranch on which Flores had the right to a life residence (ibid.). In addition, Flores could "... select as her home any house now on the said farm, or which may hereafter be built during the life of said Theodore Heermann" (ibid.). Family history relates that Theodore and Felipa were married in a civil ceremony in Bandera and later remarried at San Fernando Cathedral in San Antonio (Jackie Falbo, personal communication).

Theodore and Felipa had two sons, Felix, born November 15, 1870, and Alfred, born February 19, 1873 (BCCCH Wills and Probates 2286). Both sons were born at the Heermann residence on the Medina River in southwestern Bexar County (ibid.).

On June 8, 1881 Felipa Flores Heermann registered her brand in the Bexar County Courthouse (BCA, Record of Marks and Brands, Book H:156). Theodore signed for his wife on the Certificate of Record (ibid.).

Throughout his life at Valmont, Theodore practiced medicine, serving those who lived in the rural area of southwestern Bexar County. The Valmont account book has several entries that mention his practice, although specifics are not given. Medical journals for this period of time were probably kept by Theodore but no longer survive. However, several journals, dating from the mid-1870s to the early 1890s, are very detailed and include names of patients, their illnesses, and the treatments Theodore prescribed. In addition, these journals contain folk-like remedies and recipes that appear to have been influenced by the Mexican culture Theodore observed on and around his ranch. Theodore's workers were primarily Mexican and his wife,

Felipa, was of Mexican heritage. Their knowledge of local plants apparently influenced his methods of treatment. Theodore suffered from asthma and family history relates that he used a mixture of olive oil and chile petin (or piquin) to counter the effects of asthma (Jackie Falbo, personal communication). He occasionally listed treatments for horse ailments; one such remedy for horse colic was a broth made from the roots of prickly pear (Heermann family papers).

Theodore continued to pursue other ventures during the latter years of his life. He served as Bexar county commissioner in 1878, 1879, and 1880 (*San Antonio Light*, April 7, 1896, p.4). Farming activities continued and in 1881, he borrowed \$2,500 to purchase an " ... Erie portable boiler and engine 15 horse power No. 4 Class "A" with pump and all complete. Also one 80 saw Brown Cotton-Gin and one 80 saw Condenser and one 80 saw feeder which constitute the cotton gin complete. Also one 18 inch stone Grist-mill known as Coleman's 'Maid of the South' complete, also one 28 inch cord-wood-saw complete. Also one Coleman's friction-gear cotton-press complete" (BCDR Vol. 21:26; Hinds 1991:18). The machinery was used on the ranch and probably served the local community of farmers and ranchers.

Theodore also owned rental property in San Antonio and several detailed account books list the names of individual renters and itemize the rents collected (Heermann family papers). Several deeds (post-1879) in the collection provide specific locational information regarding these properties.

Theodore died in April of 1896. One obituary states that he died at his home located near the Senior Post Office in south Bexar County (ibid.). The community of Senior was settled in 1875 and, by 1880, had a church, school, gristmill, cotton gin, and a post office in the local general store (Webb 1952:593). Perhaps the gristmill and cotton gin refer to the machinery belonging to Theodore (as described above). A population of 200 was recorded in 1890, but by 1910 was reduced to 79 (ibid.). Another obituary states that Theodore died at his home near the Valmont Post Office (*San Antonio Daily Express*, April 8, 1896, p. 8). Valmont was located in south Bexar County near the communities of Senior and Oak Island and was named for Theodore's ranch. In 1894 a Valmont Post Office was established just south of Elm Creek and the Medina River (Post Office Department, Office of the Fourth Assistant Postmaster General, Washington D.C., Oct. 9, 1894). Felix Heermann, son of Theodore, was appointed as postmaster and the affidavit stated that the Valmont Post Office would serve a scattered neighborhood of approximately 150 persons (ibid.).

The exact location of Theodore's grave is unknown

but family history relates that he was buried in the family cemetery (41BX529) located on the ranch (Jackie Falbo, personal communication). The cemetery is identified in newspaper obituaries and on several death certificates as the Heermann family cemetery (see below) and it is assumed that Theodore and, probably, his brother, Adolphus, are buried at this location.

1896-1912: Felix and Alfred Heermann

After the death of Theodore in 1896, his estate was divided between his two sons, Felix and Alfred, with Felix inheriting the study property (BCDR Vol. 193:54-57; Green, Moir and Hinds. 1992:6.15).

In 1900 the Heermann family deeded a 40' right-of-way to Bexar County for a public road (BCDR Vol. 187:262-263; BCDR Vol. 251:305; Green, Moir and Hinds. 1992: 6.15). Known as Hermann [sic] Road, it ran east to west through the property; portions of it became present-day Noyes Road (ibid.). Felix Heermann and his wife, Nancy Dean Heermann, lived on the property and declared the acres between Hermann Road and the Medina River as their homestead in 1909 (BCDR Vol. 306:71; Green, Moir and Hinds. 1992: 6.15). In 1912 the daughters of Felix Heermann deeded the property to their father after the death of their mother (BCDR Vol. 3939:101; Hinds 1991:16). Later, in 1912, Felix Heermann, sold 560.61 acres of the property to William L. Richter for \$20,742.57 (BCDR Vol. 389:476-477; Hinds 1991: 16).

Alfred died on November 25, 1909 from a gunshot wound to the upper left lung (BCH Vital Statistics, Book 2:109). He was buried in the Heermann family cemetery (designated site 41BX529). Two ornate iron-fenced burial plots are present in the cemetery. One of these has a gray granite tombstone identifying it as the final resting place of Alfred Heermann. Alfred's birth and death years (1873-1909) are incised on the stone as well as an illegible epitaph. The identity of the second interment is unknown although San Antonio newspaper obituary notices indicate that both Felix and Felipa are also interred in the cemetery.

Felix died on March 3, 1941 and was buried "... on Richter's Ranch on the Palo Alto Road" (*San Antonio Express* March 4, 1941, p.A5). He was survived by his mother, Felipa, and three daughters, Mrs. Evelyn Mauermann, Mrs. Rosa Justillien, and Mrs. Effie Geise.

Felipa Heermann died on August 12, 1942. Interment was at the Heermann cemetery (SA Metropolitan Health District, Statistical Services Division, Standard Certificate of Death).

The Richter Era: 1912 - ca. 1974

In 1912, William L. Richter, purchased 560.61 acres of the Heermann Ranch from Felix Heermann

(BCDR Vol. 389:476-477). William emigrated to Texas from Virginia in 1877 and by 1879 was living in San Antonio and was working at the Menger Hotel and at Solcher's Bakery (Richter family papers, DRT; Hinder 1991:19) He married Emma Frances Solcher on July 25, 1882 and they had six children.

On August 1, 1882, William and Emma opened their first bakery in a rented adobe building on the corner of North Flores Street and West Houston Street (Hinder 1991:19). By 1885, the Richters had moved to larger quarters on the corner of Laredo and East (now Santa Rosa) Streets. By 1918, the Richter's Bakery was the largest in the south (*ibid.*).

William Richter served as a San Antonio city alderman and mayor between 1897 and 1913. In 1912, Richter bought the Butter Krust franchise for the area, gradually discontinuing retail deliveries and concentrating on wholesale only. In 1920, Richter built a new plant on Durango Street and San Pedro Creek. In 1941, Richter's Bakery moved to a new plant on Broadway and, in 1964, the Colonial Cake Company moved to W. W. White Road. William Richter died on September 5, 1940 in San Antonio.

1974 - present

The property was purchased in 1974 by Billy T. Mitchell (Kay Hinder, personal communication). They are the current owners of the property.

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EXCERPTS FROM THE VALMONT ACCOUNT BOOK AS RECORDED BY THEODORE HEERMANN

Cheryl Lynn Highley

ABSTRACT

Theodore Heermann kept journals and account books throughout his adult life. The Valmont account book dates from 1856 to 1873 and provides a wealth of information regarding the development of Theodore's ranch, Valmont, located on the Medina River in southwestern Bexar County. While credits and debits with corresponding explanations are provided for laborers and business associates, the more interesting entries are the character descriptions of the workers, the daily activities of the various farm and ranch hands, weather observations, horse pedigrees, and other observances of life during the 1850s, 1860s, and 1870s in southwestern Bexar County.

BACKGROUND

Although Theodore Heermann was a man of many talents and interests (see Highley and Hindes, this volume), his most enduring legacy may be the written record he left behind (Heermann family papers). His writings show him to have been a keen observer of people and events. Despite his often critical assessments of certain laborers, he praised those whose work he admired and appreciated. A strong sense of compassion and humor is also present in numerous entries.

The following are excerpts from the Valmont account book. These insightful entries reveal a great deal about Theodore Heermann and the lives of those around him on the Medina River during the mid-1850s to the early 1870s. Both historical and archaeological implications can be derived from the entries.

AUNT LUCY

While it has not been established through archival research that Theodore owned slaves, a two-page entry suggests that he owned at least one servant or, perhaps, had owned her at one time and then employed her until her death. She is the only employee in the account book that is not identified by a last name; this would lend credence to the theory that she was or had been a slave. In addition, Theodore refers to himself as "master," although he also uses that term in entries regarding Hispanic ranch hands.

The account includes a full page of credits for Aunt Lucy from 1857 to 1859. Theodore laboriously recorded the amounts of laundry taken in by Lucy (she was paid 62 and 1/2 cents per dozen). She was also paid for cooking chores. Theodore also noted twice that

certain amounts of cash were placed in his hands for safekeeping, suggesting long-established trust between the two of them. Her debits include small amounts of cash and numerous purchases (e.g., flour, sugar, soda, soap, thread, thimbles, wash basin, candles, corn, shoes, seed corn, seed potatoes, meal, pans, bacon, button, dress, butter, pins, garters and eyelets, apron stuff, matches, blanket, socks, blue jeans, flannel, alum, slippers, wax, candle wick, and cottonade). The entries relating to financial accounts end after September 1859. The final entry is a eulogy for Aunt Lucy:

*Aunt Lucy died on the night of 11th Jan. 1863
aged 67 years.
Simple in heart, pure in thought, faithful in trust; your
honest devotion was all your master's, whose love and
whose tears accompany you beyond the grave.
dear, good, most excellent old
Aunt Lucy.
Heaven reward you and God Almighty
have you in his keeping, is your sorrowing master's
most fervent prayer.*

It is not known if Lucy died at Valmont. While the eulogy is not dated, we do know that Theodore was in New Orleans during January of 1863. He returned to San Antonio after February of 1863.

The poignancy of Theodore's expression of love and loss suggests a long-standing relationship between the employer and employee, and yet a relationship that went beyond a business arrangement. Mutual respect,

devotion, and closeness is more than implied. In a separate entry for a laborer, Theodore cited numerous reasons for dismissing the laborer including the theft of Lucy's watermelon. This entry further establishes his closeness to her.

JACALS AND SOLACE ON RAINY NIGHTS

Under the credits and debits for Juan Salazar, a herdsman on the ranch during 1856-1857, was the following comment:

Has been recently married and not having a good hackal [jacal] to live in, is uncomfortable. Love in a roofless cottage is no solace on rainy nights. A good man, understands the case of sheep and goats.

Recording credit for wages (\$10/month) earned from September 5, 1856 to October 7, 1856, Theodore wrote that another laborer, Juan Muñoz "... lost two days mending a hackal [jacal]."

Archaeologically, these passages indicate that jacals were in use in the area and probably on the Valmont estate during the 1850s. During the 1994 STAA Field School excavations on the ranch, daub was recovered and probably indicates the presence of such structures.

WANTING IN ENERGY—AN 1869 FLOOD— THE OLD PAMPOPA CROSSING

The following lengthy entry was probably written in 1869. While describing one of his herdsman, Theodore digressed and, fortunately for historians, described a flood on the Medina and the location of the Pampopa crossing.

An easy go-along and indolently disposed man who rather goes through a certain amount of work because his pay must be earned by a show of work rather than from any particular sense of duty or interest in his employers concerns. His principal merit is that he never makes a horse's back sore. His chief fault, that he is entirely wanting in energy On the 7th of July the Medina rose 30 ft at the old Pampopa ford which (was) is directly in front of my river gate, sweeping away all the fences on the river front and around the corn patch to where said fence reached the high land about ___ yds in front of the stable I had crossed the river on the 26 June. It rose that night and I returned home only

on the eve of 17th July, ferrying the river and swimming my horse in tow of the boat. Constantly recurring heavy rains had during these 3 weeks rendered the country so boggy that riding was almost impossible, hence my herdsman had or could do little or nothing. This suited exactly the nature of the man. Bad weather not being counted as lost time, he could smoke all day, draw his pay and impossible to convey an order to him. Cattle and horses were constantly breaking into the corn. 6 horses had escaped from the pasture and he whose duty it was, under the circumstances, to have mended the gap in the pasture fences & to be useful in any way under such an emergency actually refused to assist in putting up the fence without a positive order from me. Thus informed I ordered by a messenger who swam the river with both the request and the order his work amounted to almost nothing. At the end of July I ordered him on a trip 25 miles below to bring back specified horses. He was displeased at such interruption of his leisure & showing it in his manner I instantly discharged him.

The Pampopa crossing on the Medina River is mentioned in archival documents (Hindes 1992:Table 4.2), but the exact location has not been previously identified (Kay Hindes, personal communication). The crossing was apparently named after the Pampoyes or Pampopa Indians who camped along the Medina River in the early 1700s (Hindes 1992:Table 4.2; 4.5).

FARM AND RANCH ACTIVITIES

The following discussion is drawn from many entries that describe the farm and ranch activities, particularly in the late 1850s.

Herding/Herdsman. Many of the workmen at Valmont are described as herdsman and it is likely that they were responsible for sheep and goats as well as cattle and horses as described in the quote above. One worker was paid for milking, although specifics (cows and/or goats?) are not provided.

Farming/Crops. References are made to ploughing (plowing), often with oxen. Grubbing (the removal of roots) is mentioned and suggests ground preparation and maintenance for crops. As mentioned in a previous quote (regarding the 1869 flood on the Medina), corn

was one of the crops grown on the property during the late 1850s. Another reference indicates that melons were grown on the property. Theodore notes that he leased parts of the farm to laborers and we can infer that several may have farmed these pieces of land. In the account book entries for Lucy, Theodore's list of debits for her include seed corn and seed potatoes. She probably had a small garden plot on Valmont.

Gathering Pecans. An 1896 obituary for Theodore relates that when he arrived in San Antonio he selected a pecan grove on the Medina River for the site of the mansion he planned to build; in 1896 the pecan grove remained one of the finest in that part of the country (*San Antonio Daily Express* April 8, 1896). The pecan grove was probably exploited as an economic endeavor. The Valmont account book records that laborers received extra pay for gathering pecans. Barreling (storage) of pecans is also mentioned.

Horses. Theodore was involved in the buying and selling of horses, apparently on a large scale. The Valmont account book contains a section on horse pedigrees, from 1863 to 1873, with numerous entries regarding types of horses (sorrel mares, sorrel dun mares, sorrel roan mares, iron gray mares, chestnut gray mares, chestnut mares, bay mares, brown mares, gray mares, and dun mares), remarks regarding locations of brands (on left or right side or on head), when and of whom bought, marks on head, and color of feet. Horse illnesses are also mentioned and a treatment of prickly pear root broth for colic was prescribed.

Other references to horses include the mention of "fly blown" animals, breaking horses, and castration.

Payment for Bird's Nest. One man was paid 50 cents for climbing a tree for a nest; this, no doubt, was a bird's nest for Adolphus Heermann, Theodore's brother, who was an ornithologist. His collecting activities along the Medina river are described in Casto, (this volume). An interesting aspect of this entry is the amount paid for the nest. Monthly wages ranged from \$10 to \$12, making a day's wage about 50 cents. Payment of a day's wage for a bird's nest indicates the importance Theodore attached to the scientific pursuits of his brother.

Improvements. In an undated entry for Juan Antonio Ruiz, the following is noted regarding improvements on the ranch:

Contracts to reset pasture fence on Elm creek at 8 cts per panel of 7 feet (Panels on Elm Creek line)

To excavating tank in pasture according to specification \$104.25

[a drawing of the tank is provided; it indicates a rectangular feature 165 yds X 18 yds with instructions for "1 foot deep on long sides" and "3 ft deep on 12 yds of width by 156 yds of length."]

5 days work repairs on pasture fence at 75 cents \$3.75

5 days grading back of stable, & 4 1/2 on kitchen \$7.12 1/2

The entry regarding Juan Antonio Ruiz (described above) could have been written at any time between 1856 and 1873, but perhaps these improvements were made to repair the damage done by the 1869 flood on the Medina River (see above). That entry describes damage done to the fences along the Medina River; stables near the flooded area were also mentioned. Similar flooding and flood damage would have occurred along Elm Creek located just south of the Medina River.

Another entry on the same page as the one described above is for Jesús Gonzalez, who in 1871, was employed for 17 days (wages, \$8.50) to put up a fence. Other references in the account book refer to the cutting and hauling of rails for fencing purposes.

In another entry, a laborer was hired to dig a well.

House Cover. In 1856 Theodore paid \$4.00 to the wife of Pomoceno Gonzales for sewing a house cover; above the words "house cover," Theodore wrote the word "tenting."

Hunting. A "...large hunt below Castroville," without additional detail, is mentioned in an 1871 entry.

Other Skills/Payments. One worker was described as a fair mechanic while another was deemed "...handy at making tool handles, such as axes, hoes, and grubs."

Men were hired to drive oxen and were paid extra if they used their animals. Men were also paid to cook and do laundry. Florencio Herrera, a herdsman and launderer on the ranch, was provided with soap, starch,

tubs, and flat irons. And, lastly, a worker employed on the construction crew of the stone house described in Highley and Hindes (this volume) was paid by a neighbor for helping to capture the neighbor's runaway slave.

VICES

Theodore makes reference to a number of vices in which his laborers engaged; no doubt, these activities affected their work performance. He mentions drunkenness, cock fighting, gambling, stealing, fighting, and smoking. In one specific instance, he describes the following (ca. 1866-1870):

... is strongly suspected of having entered and plundered the house of Gregorio (a friend who had stored pecans for him free of charge) ... lost articles were a large oven, handle of metal, tablecloth, wool, beans, hatchet, drawing knife, and saw.

Theodore also mentions the theft of shingles, pecans, and a watermelon. In an 1869 entry, Theodore wrote of the theft of two horses: "... treated [medical treatment] the worker's child 4 times free of charge ... he returns the compliment by stealing 2 horses."

Theodore, while critical of certain workers, also showed a paternal affection towards others. He writes of a 16-year-old young man who lost money while gambling and Theodore's sense of fair play is indicated through his observations. He relates that the young man was taken advantage of by an older individual.

A HANGING

Theodore made several entries in 1856 and 1857 for one of his workers. He described him thusly:

A boy of good disposition and general cheerfulness. A little inclined to loll and fool away his time, but works well when he wishes. A good worker when the master is looking on. About 19 years of age.

In an undated, lengthy entry, Theodore described the following event:

[The boy] was seized on the morn. of 15th of May (during our absence from the farm) without authority of law ... and charged ... with aiding and

abetting the escape of a negro boy he was whipped and his life threatened in order to force a confession, without eliciting anything. That night he escaped from their hands. On the 16th he was arrested under a warrant issued by ... [a] Justice of the Peace and his examination commenced on this farm before said Justice and continued at [the Justice's] on the 18th. The examination being concluded only about dusk, the prisoner was put into the hands of ... for safe keeping and delivery to the S. Antonio jail. The Justice (not having very good eyes could not write by candlelight) said he would make out a [illegible] the next morning ... a blacksmith ... passed near here and said he had heard that the prisoner had escaped. Same evening a Mexican passed here and said he had seen a Mexican (describing [the boy's] person and dress perfectly) hanging to a tree in the "arroyo de las piedras" on the 22nd. A.L.H. [Adolphus L. Heermann,] wrote ... inquiring whether [the boy] had been delivered at the San Antonio jail and was answered that the man of whom inquiry was made had been found near the Mission San Juan hanging to a mesquit tree dead. [The boy] was murdered while in legal custody on after Monday evening 18th May, after dusk by parties to us unknown. The curious might possibly obtain more information on the subject from [names of neighbors and Justice of Peace].

To have such an account recorded for south Bexar County where a number of families owned slaves is a sad and frightening addition to the history of this area. It is stressed that the implication of Theodore's attitude towards this event is one of anger and incredulity. His phrasing "... was seized ... without authority of law ..." and "... was murdered while in legal custody ..." and the letter that Adolphus wrote to the local authorities indicates that both Theodore and his brother were incensed by the hanging. He also underlined the word "escaped"; one may speculate that Theodore did not believe the story that was being spread about the incident. His final statement, that of naming names, strongly indicates that he condemned the vigilante activities of his neighbors and law officers. At the conclusion of the account, Theodore signed his initials, as if wanting it known that this was his account and his signed initials authenticated the written account. In so doing, Theodore shows an employer's devotion to a hired hand whom he believed was an innocent man.

MONEY PROBLEMS DURING THE CIVIL WAR

In an undated entry, but obviously during the Civil War period, Theodore wrote the following about Incarnación Escobera and the money problems faced by him and other laborers during the War:

A quiet and good man. Left because I would not promise to pay him in specie [gold or silver coin] instead of bank or confederate paper. Very little change in circulation subjects labourers to great inconvenience, as store keepers cannot change bills and purchasers don't always wish to expend their entire note in the same store. The labouring Mexicans look upon it as a swindle

directed against them, instead of as one of the evils from a revolution which will, we hope, be all shortly settled. Specie is a premium of 15 to 20 per cent.

CONCLUSIONS

These excerpts "bring to life" farming and ranching activities in southwestern Bexar County during the years between 1856 and 1873. Prior to locating the Valmont account book, little was known about the day-to-day activities on this particular ranch and the persons who were responsible for those activities and the success of the ranch. The social and political issues also give us a better understanding of life in Texas during this brief time period.

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A. L. HEERMANN AND HIS NATURAL HISTORY COLLECTIONS FROM SAN ANTONIO AND THE MEDINA RIVER VALLEY, 1854-1865

Stanley D. Casto

ABSTRACT

A. L. Heermann collected around San Antonio and along the Medina River from 1854 until 1865. Knowledge of the freshwater mussels, amphibians, reptiles, and birds of the area was advanced through his shipments of specimens to the Philadelphia Academy of Natural Sciences and his collaboration with the English ornithologist H. E. Dresser. Significant specimens obtained by Heermann include the holotypes of Heermann's Tampico Pearlymussel and the Texas River Cooter, as well as the first specimens of the Buff-breasted Sandpiper and Snowy Owl from Texas and the first Golden-cheeked Warbler to be taken in the United States.

EARLY LIFE AND PROFESSIONAL TRAINING

Adolphus Lewis Heermann was the oldest of the five sons of the distinguished naval surgeon Dr. Lewis Heermann and his wife, Eliza Potts. Evidence from the 1860 census and his "Last Will and Testament" suggests that Adolphus was born about 1821 in New Orleans. Adolphus and his brothers, Theodore and Valentine Mott, were well-educated. Adolphus received his doctorate in medicine from the University of Maryland in 1845 whereas Theodore graduated from the medical school at the University of Pennsylvania in 1847. Valentine was a lawyer in New Orleans. The residences and occupations of the youngest brothers, Charles Frederick and Clifford Heermann, are unknown (Heermann papers).

Adolphus Heermann's life-long obsession with natural history began in 1843 when he and Theodore accompanied the expedition of Sir William Drummond Stewart into Wyoming and Oregon (Field 1957). Adolphus, or "Dolly" as he was known to the other members of the expedition, collected birds and their eggs, and was particularly impressed by the trappers and other rugged outdoor men encountered along the way. In later years he would pose for a photograph dressed in buckskins and holding a musket (see photo, next page). Thus Heermann's image has come down to us as that of a "mountain man" rather than that of the highly educated and sophisticated person that he really was.

Heermann was elected to the Philadelphia Academy of Natural Sciences in 1845. In that same year he presented to the Academy four lots of birds obtained

during a trip to Europe. In later years Heermann would also provide the Academy with specimens from many locations on the frontier, including San Antonio and the Medina River Valley.

COLLECTING IN CALIFORNIA

In 1849 Heermann left Philadelphia for California where he spent three years collecting birds and other vertebrates. The publication of the results of this expedition (Heermann 1853) brought recognition from ornithologists in both the United States and Europe. Vertebrates collected by Heermann in California and later named in his honor include a gull, song sparrow, kangaroo rat, tree squirrel, and a bullsnake. During 1853 Heermann again collected in California while serving as the surgeon and naturalist of one of the Pacific Railroad Surveys (Heermann 1857a, 1857b). In December 1853 he returned east via Tucson, El Paso, and San Antonio with a surveying party led by Lieut. John G. Parke. This party arrived in San Antonio in early 1854 giving Heermann his first view of the area where he would spend the last years of his life.

FIRST YEARS IN SAN ANTONIO

Heermann was intrigued with life on the Texas frontier. He spent the spring of 1854 and the winter of 1855-1856 in San Antonio, presumably staying with his brother, Theodore, who was then living in the city. During this time Heermann became friends with Duncan Ogden, and the brothers, George and Clem Howard. George Howard had extensive ranch holdings on the Medina River and, for a brief period during the



Photo from The Ruthven Deane Collection, Library of Congress

ADOLPHUS LEWIS HEERMANN

Physician, Explorer, and Naturalist

1850s, he and Duncan Ogden were partners. Following Ogden's death, his widow, Elizabeth Cox Ogden, married Clem Howard. Elizabeth's son, Duncan Ogden, Jr., was interested in natural history and Heermann taught the teenager how to collect birds and prepare their skins and eggs.

In November 1855 Theodore Heermann purchased 738 acres on the south side of the Medina River. This original purchase formed the nucleus of the estate that Theodore named "Valmont," presumably in honor of his brother, Valentine. Theodore and Adolphus later entered into a partnership and by 1860 they were paying taxes on 2,691 acres of land on the Medina River. Valmont and the Howard Ranch on the north side of the river were major collecting areas for Heermann.

EARLY COLLECTIONS IN BEXAR COUNTY

Adolphus Heermann collected in the area immediately around and to the south of San Antonio from 1854 to 1865. Unfortunately, he did not always provide specific locality data and his specimens were often labeled as having been collected in "Texas"... "near San Antonio"... along the "Medina River" or "Atascosa River." Only in rare instances was a locality specifically identified, e.g. the "Heermann Ranch" or "Howard Ranch."

In the spring of 1854 Heermann noticed, while riding on the prairie near San Antonio, a small bird running through the grass. The bird was collected by John G. Parke and presented to Heermann who believed it to be an undescribed species of plover. Heermann immediately wrote a description that was published later that same year (Heermann 1854). But, unknown to Heermann, this species had been collected and described in South America over 30 years earlier. The specimen described by Heermann is today known to be that of a Buff-breasted Sandpiper, a migrant through Texas during the spring and fall.

Amphibians and reptiles seem to have occupied Heermann's attention during his first years at San Antonio. In 1856 he sent the Academy of Natural Sciences a collection of 69 specimens of 21 species collected in the "neighborhood of San Antonio." One frog in this shipment was described as a new species (Hallowell 1856) although today it is considered to be

only a variant of the Green Tree Frog which had been described years earlier. Several toads were also used in the preparation of an expanded description of the species known today as the Gulf Coast Toad. The Texas River Cooter (*Pseudemys texana*) was later described from a turtle collected by Heermann at San Antonio (Bauer 1893). The type specimen is "stuffed" rather than preserved and neither the date of its collection nor its receipt by the museum are known (Carr 1952; Daeschler 1994).

One of Heermann's most unusual specimens was collected during July 1856. The United States Army had brought a number of camels to San Antonio where they were quartered near San Pedro Springs. Finding this area to be unsuitable, the herd was moved during late June to the ranch of George T. Howard on the Medina River. On the 22nd of July it was reported that one of the female camels had died. According to Major H. C. Wayne an examination of the dead animal "was made by Dr. A. Z. Herman, M.D. [*sic*] a physician living in the neighborhood." Heermann determined that the animal had died as a result of heavy blows that had fractured the clavicles and ribs driving bone splinters into the chest cavity (Emmett 1932). The good doctor apparently took advantage of the opportunity to salvage the skull of the camel for scientific purposes. On 12 March 1861 the Academy of Natural Sciences received one of its frequent shipments of specimens from Heermann. Included in this shipment was the skull of a Dromedary Camel, presumably obtained from the unfortunate beast that had died on the Howard Ranch nearly five years earlier. Other mammal skulls sent in this same shipment included those of a Mountain Lion, Ringtail, Collared Peccary, Gray Fox, and Gray Wolf.

COLLECTIONS MADE DURING 1861-1862

In early 1861 Heermann sent a collection of eggs to Alfred Newton at Magdalen College, Cambridge, England (Newton 1861). The *Annual Report of the Smithsonian Institution* for 1861 also mentions a collection of "skins and eggs of North American birds" received from A. L. Heermann. Although the specimens in this shipment cannot be specifically identified, the National Museum of Natural History does contain a number of birds collected in Texas by Heermann (Angle 1994).

Around 1861 Heermann sent Isaac Lea at the Academy of Natural Sciences a freshwater mussel that he had collected from the Medina River. Lea described this unknown form and named it *Unio heermannii* in honor of its collector (Lea 1861). Heermann's Mussel is now considered to be a subspecies of the Tampico Pearlymussel, *Crytonaias tampicoensis heermannii*, that inhabits lakes in southern Texas and Mexico (Neck 1989). Other species of mussels collected by Heermann from the Medina River include the Threeridge (*Amblema plicata*), Golden Orb (*Quadrula aureus*), Maple-leaf (*Quadrula quadrula*), and the Yellow Sandshell (*Lampsilis teres*) (Bardes 1993).

Perhaps sensing that the impending war would disrupt the postal system, Heermann began to send an increasing number of specimens to the Academy. In addition to the skulls previously mentioned the following shipments were received during 1861: 71 specimens comprising 20 species of reptiles and a quart bottle of insects; the skin of a Harlan's Hawk, five casts of fossil shells and the fossil of a dicotyledenous leaf; skins of ringtail, jackrabbit, wood rat, and fox squirrel; skins of a female jackrabbit and young, three field mice, two bats, and a mole; a collection of marine shells; and a specimen of Heermann's Mussel. The four species of freshwater mussels previously mentioned were received by the Academy on 7 January 1862.

COLLABORATION WITH H. E. DRESSER

By the early 1860s Heermann seems to have lost contact with his former associates, and it was widely rumored that he was dead. It was therefore with surprise that the English ornithologist, Henry Eeles Dresser, found Heermann to be yet alive when he arrived in San Antonio on 16 September 1863.

Dresser found Heermann to be suffering from a muscular weakness (*locomotor ataxia*) in his lower extremities due to the effects of syphilis. Although he had difficulty walking his mind was alert and his passion for collecting unabated. When mounted on a horse he could still venture into the field, firing from the saddle at birds he wished to collect (Hume 1942; Mearns and Mearns 1992).

Heermann was living alone in a small bungalow in San Antonio at the time of Dresser's arrival. Theodore was involved in the war effort and, being concerned for

his brother's welfare during his absence, urged Dresser to room with Adolphus during his stay in San Antonio. Dresser readily accepted this suggestion and, although he made several extended excursions to other locations in Texas, he continued to lodge with Heermann until his departure from San Antonio in July 1864.

Dresser set about collecting soon after his arrival. Heermann assisted this effort by providing Dresser with suggestions on the best locations to collect, and occasionally accompanied him on the shorter forays. When Dresser was called away for business Heermann would complete the preparation of specimens. And, more importantly, he shared with Dresser his records regarding the birds of the area, e.g. his collection of a Snowy Owl during the winter of 1857. Much of this information was later incorporated into Dresser's paper, "Notes on the Birds of Southern Texas," that was published in *The Ibis* during 1865 and 1866. This paper mentions Heermann with regard to over 40 species observed or collected near San Antonio or along the San Antonio, Medina, or Atascosa Rivers. Dresser's collection, now in the museum at the University of Manchester, contains several birds taken by Heermann. One of the more significant is that of the now endangered Eskimo Curlew that was taken in "Texas" during 1861. Although the locality data is not specific, the bird was presumably collected near San Antonio. Additional species taken during 1863-1864 by Heermann at San Antonio, or on the Medina River and now in the Dresser collection, include the Yellow-billed Cuckoo, Barn Owl, Lark Sparrow, and Brown-headed Cowbird (Hounscome 1984).

A Golden-cheeked Warbler was collected by Duncan Ogden, Jr. on the Howard Ranch during the spring of 1864. Although this species had been described in 1860 from specimens collected in Guatemala, the bird taken on the Howard Ranch represents the first specimen of the species to be collected in the United States. The bird was obviously in migration since the Medina River is not a breeding area for golden-cheeks. Ogden brought the specimen to Heermann who, in turn, gave it to Dresser. This specimen is today found in the British Museum of Natural History (Pulich 1976).

Dresser was particularly impressed with the method by which Heermann obtained the eggs of wrens. A hole was cut in a small cigar box and the box was then

nailed in a location where the wrens would likely nest. The progress of nest building and laying of the eggs could be observed by lifting the lid to peek inside. When the clutch was complete the box and enclosed nest were removed. Heermann had a number of these boxes at his ranch on the Medina in which Canyon Wrens, Carolina Wrens, and Bewick's Wrens nested during the spring of 1864 (Dresser 1865:484).

DEATH OF ADOLPHUS HEERMANN

Dresser left San Antonio for Matamoros in July 1864. After returning to England he received a letter from Theodore Heermann informing him that Adolphus had been found dead on 2 September 1865. While collecting on the prairie near San Antonio Heermann

had apparently stumbled, causing his gun to discharge, killing him instantly. Heermann died as he had lived—in the field and in pursuit of the passion that had molded his character. Family tradition maintains that Adolphus is buried in an unmarked grave in the Heermann family cemetery on the Medina.

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NATIVE AMERICAN AND EUROPEAN CONTACT IN THE LOWER MEDINA RIVER VALLEY

V. Kay Hines

ABSTRACT

The following paper examines those aboriginal Native American groups encountered by the early Anglo-European explorers along the Medina River in southwestern Bexar County, Texas. The Medina River is a ca. 150 mile long river which trends generally northwest to southeast before emptying into the San Antonio River southeast of San Antonio, Texas. The environs of the river were occupied/utilized for thousands of years by prehistoric inhabitants as well as by the later historic aboriginal Native Americans prior to any incursion by Anglo-Europeans. The discussion also suggests that the period of time commonly referred to by archaeologists as the protohistoric more accurately should be called the Historic Aboriginal Contact period for at least portions of south Texas. The research utilizes primary ethnohistoric and archival data as well as secondary sources. It should be noted that much of the information was compiled during the course of studies for the Applewhite Reservoir Project located in southwestern Bexar County, Texas.

HISTORIC ABORIGINAL CONTACT PERIOD

The regional Historic Aboriginal Contact period could be said to begin in approximately 1519 when Piñeda mapped portions of the Gulf Coast. In November, 1528, Cabeza de Vaca was shipwrecked on the Texas coast and wandered over a large part of southern Texas. Although the actual route of Cabeza de Vaca's journey has been debated for a number of years, his observations on aboriginal Indian groups offer us the first eyewitness data on the Indian groups living in portions of Texas at that time. The period can effectively be said to have ended by 1718, when the local groups were first brought into the mission system in the San Antonio area.

A number of researchers refer to this period as the Protohistoric, but other researchers have suggested that this is not a valid concept in south Texas (Elton Prewitt, personal communication; Hines 1990). The idea of a Late Prehistoric/Historic Aboriginal Contact construct provides a flexible framework to address interrelated aspects of the prehistoric-to-historic transition period. As an example, if indirect effects, such as the transmittal of contagious diseases or the appearance of the horse, preceded but disrupted existing native cultures before direct contact, then how can an absolute or relative date define the "end" of the protohistoric or the "beginning" of the Historic Aboriginal Contact? The times of indirect contact would vary regionally and it would be futile to identify a specific date. This period or time span would be distinct from later mission Indian acculturation. Such a concept does allow the possibility that the cultures of the terminal Late Prehistoric were not necessarily the same as those of the Historic Ab-

original Contact Period but neither does it exclude this possibility. As Black (1989:57) points out, connecting the Late Prehistoric archaeological cultures in south Texas with documented ethnohistoric groups has proven extremely difficult. Likewise, the diagnostic remains of any specific Native American group drawn into the Spanish missions have not been confidently identified (*ibid.*). Additionally, it may not be feasible to take known historic mission-associated Indian groups and make inferences regarding the earliest historic contact groups. It may be argued that some of the groups encountered by Cabeza de Vaca had already been displaced from their original territory in central/northeastern Mexico. J. Martin Salinas' thesis (Salinas 1990) on early historic Indian groups of the Rio Grande Valley clearly shows the indirect and traumatic effects of Spanish influences which led to the displacement and disruption of native groups in portions of southern Texas and northeastern Mexico long before any direct contact had occurred.

Additionally, indirect effects caused by developments in New Mexico in the 17th century may have initiated the processes of displacement, cultural adjustments due to external influences, and the breakdown of indigenous cultural traditions long before any local (e.g. Payaya) group ever met a Spanish explorer. Raiding Apaches forced southward by the Comanche entered Texas in the 17th century. Additionally, the desire to capture horses contributed to this southward migration. Dr. Tom Campbell and Dr. LeRoy Johnson (personal communication) have suggested that this activity accelerated when the Spanish withdrew to El Paso in 1690 after having been expelled from New Mexico during the Pueblo Revolt.

This paper focuses on those aboriginal Native American groups known collectively by the 19th century as Coahuiltecans. More recently, Johnson (1994: 279) has advocated the adoption of the term Coahuilteco for a particular ethnolinguistic series of aboriginal groups just below the Edwards Plateau, and this terminology will be used here. The Coahuiltecos inhabited the extensive coastal plain environment of northeastern Mexico and Texas. This region includes southern Texas, northeastern Coahuila, and the greater parts of both Nuevo León and Tamaulipas (Campbell 1983: 344). The Coahuiltecos were actually composed of a number of ethnically distinct bands or groups of Native Americans speaking a similar dialect and who shared similar lifeways (Hester 1989:79). They were primarily hunters and gatherers adapted to the natural environment, who exploited a wide range of available resources. Recent research has demonstrated that some of the individual groups can be distinguished, their approximate territories defined, and that other languages in addition to Coahuilteco were present (*ibid.*).

Little ethnohistoric data exists regarding these distinct bands of Native Americans. Information must be drawn from widely scattered sources that contain fragments of data regarding the lifeways of the native groups. A number of early diaries and itineraries of explorers/travelers contain scant detail and must be carefully scrutinized to extract crucial data regarding subsistence and material culture. Hester (1989:79) points out that several early studies, such as those by Newcomb (1961) and Ruecking (1953; 1954), have provided generalized statements regarding the Coahuiltecos drawn from widely scattered sources related to a variety of native groups of south Texas-northeastern Mexico as well as central Texas and even the Lower Pecos. This use of divergent sources has tended to obscure the differences that existed. In order to address these differences and refine our knowledge of these groups, researchers must think in terms of individual ethnic groups without forming generalizations.

As noted earlier, while the earliest available ethnohistoric data we have regarding aboriginal Native American populations in south Texas is that of Cabeza de Vaca, it is clear that de Vaca traveled some distance south of the Medina River area. Therefore, the information regarding those indigenous groups of Native Americans discussed by de Vaca will not be addressed. Additionally, the Indians of the late-17th-to-early-18th-century contrasted sharply to those known to de Vaca. By the end of the 17th century, many of the Indians of south Texas had already faced many of the problems of hunters and gatherers worldwide: population decline, territorial displacement, segregation and ideological

absorption, loss of ethnic identity, and absorption by invading populations (Campbell 1975:2).

ABORIGINAL NATIVE AMERICAN GROUPS IDENTIFIED ON THE MEDINA RIVER

The following section discusses those aboriginal Native Americans which were clearly identified on or at the Medina River by early explorers and travelers from approximately 1689 to 1717. A number of other groups such as the Sulujam, the Mesquite, etc. were known to be on the San Antonio River in the vicinity of present-day San Antonio, but these groups are beyond the scope of this paper.

Late 17th-early 18th century entradas led or accompanied by men such as Alonso de León (1686-1690), Fray Damián Mazanet (with de León in both 1689, and 1690, and Terán in 1691), Don Domingo Terán de los Rios (1691), Espinosa, Olivares, and Aguirre (1709), and others, encountered aboriginal groups in the possible vicinity of the Medina River. A number of the routes of these early explorers has not been positively identified, and indeed, alternative routes have been postulated for these explorations. For example, in 1689, de León while camped on the Arroyo del Vino calculated his latitude as 27 degrees 55 minutes (West 1905:209fn2). West (*ibid.*) believed the Arroyo del Vino to be the current Atascosa River, and Weddle (1973:180) postulated it to be a tributary of the Atascosa River. While acknowledging that the defective astrolabe used by de León's party may account for an erroneous latitude, early maps showing the 1689 route (see the Siguenza Map, Le Maire's *Carte nouvelle de la Louisiane* dated 1716, and Delisle's landmark map of Louisiana dated 1718; in Jackson et al. 1990:62-63) indicate de León crossed the present day Rio Grande well below the later-established Presidio San Juan Bautista. Additionally, the general direction of travel, and de León's own comment that allowances were made regarding the defective astrolabe (West 1905:223), tend to support a more southerly course (at least for portions) of the expedition. An indepth review of these trails is beyond the scope of this paper; however, when appropriate, mention will be made of possible discrepancies between the archival record and interpretations by researchers.

Mazanet identified six groups on the Medina in 1690: the Tilpayay (Payaya), the Cuaya, the Semomam, the Saracoam, the Pulacmam, and the Anxau (Xauna) (Gómez Canedo 1968:160). Campbell (1975: 6) believes that these six groups may have shared a common encampment at this time. It is interesting to note that in 1690, Mazanet commented:

"there were some points of which I took special note on this journey. First in the preceding year [1689] we had everywhere found Indians, while in the year '90 we saw not a single one until we inspected the bay of Espiritu Santo and entered the land of the Tejas" [Casis 1899: 310].

It should be noted that in both 1689 and 1690, the river identified by de León as the Medina River may have been the San Antonio River well below the confluence of the Medina and San Antonio Rivers (McGraw, Clark, and Robbins 1991:62). The importance of the research efforts regarding these routes as it pertains to the potential locations of the aboriginal groups should not be underestimated. Indeed, based on the earliest references to some of these groups and the possible accuracy of the revised route of de León, it can be argued that an easterly migration occurred at the end of the 17th century and was followed by a northerly movement by the beginning of the 18th century.

The Espinosa-Olivares-Aguirre expedition again encountered the Payaya on the Medina River (most researchers accept that Espinosa was definitely on the current Medina River) in 1709, but at this time it was noted that they were not very numerous, suggesting that between 1690/1691 and 1709, the group may have been reduced. The expedition crossed the Medina River on April 11, 1709. In a clearing on the north bank of the river, they found a ranchería of the Payayas and later while traveling down the river encountered other Payayas and later five Pampopa who were going to the ranchería of the Payayas. The party then crossed the Medina a second time (now being on the south bank) and arrived at the ranchería of the Pampoas (Pampopas). Espinosa's party then took a Pampopas guide and twelve members of this group and recrossed the Medina for the third time arriving again on the north bank (Tous 1930a:4-5). Pecans were noted as the daily food of the groups along the Medina River (ibid.). Espinosa recorded that this springtime encampment was occupied for at least 12 days. On their return trip from the Colorado River, eight to ten Indians of the Sijames nation, on their way to the Medina River were observed between the Arroyo of León (León Creek) and the Medina River. After having crossed the river on April 24, 1709, the expedition again encountered the Pampopas as well as the captain of the Paxti (Pastia) nation. They acquired an Indian guide, who rather than leading them west, led them southeast evidently into the sandy area known as the "Blackjacks" in northern Atascosa County. Campbell and Campbell (1981:46) believe that the party encountered the Indians near the boundary between Bexar and Medina Counties, where the Medina River flows from west to east before

turning again southeastward. Studies conducted for the Applewhite Reservoir Project (Hindes 1992:4.2-4.3; Robinson et al. 1992:11-12) suggest that Espinosa may have crossed the Medina River ca. 1.5 miles east of the current State Highway 16 bridge over the Medina River. Site 41BX836, an historic rock art site located along Elm Creek approximately 3/4 of a mile south of the Elm Creek and the Medina River confluence, contains two early dates carved into the sandstone: 1709 and 1814. If determined to be authentic, the importance of this rock art site as it correlates to the determination of the route of the Espinosa-Olivares-Aguirre expedition and the encampments of the aboriginal Native Americans cannot be underestimated.

The Anxau may be the same group listed as the Xauna by José de Solís in 1767 (Campbell and Campbell 1985: 54). The Xauna were one of several groups of Indians to enter Mission San José y San Miguel de Aguayo (Mission San José) sometime after its founding (ibid.). They may also be the same Indians identified by Rivera y Villalon as the Anna (Campbell and Campbell 1985:54) and the Xana listed by Barrio Junco y Espriella (ibid.). A specific identity for the Anxau (Xauna) has not been established. They were probable Coahuilteco speakers (Campbell 1983:349).

The Cauya, the Semoman (Semonan?), the Saracoam (Saracuam?), and the Pulacmam ((Pulacuam) may also have been Coahuilteco speakers (Campbell 1983: 356). At present, nothing else is known about these four groups.

ADDITIONAL REFERENCES TO THE PAYAYAS

The following section contains additional areal or regional references to the main groups known along the Medina River. It should be noted that this discussion includes information which postdates the founding of the San Antonio missions; however, only those references which place the groups outside of the mission environs will be addressed.

The Payaya (Tilpayai) were first identified in 1688-1689 near the Sierra de Sacatsol north of the Rio Grande in an encampment shared by seven other groups (Gómez Canedo 1968:8-9). Campbell believes the Sierra de Sacatsol encampment to be somewhere just south of the Edwards plateau margin in either Kinney or Uvalde County of today (Campbell 1975:4-5). In 1691, Terán encountered a Peyaye (Payaya) ranchería in the vicinity of the San Antonio River (Hatcher 1932: 14). He commented that they were a docile and affectionate people (ibid.). Mazanet reported that they encountered the Indians at the place known to the Indians as Yanaguana and which was named San

Antonio de Padua by the Spaniards (Hatcher 1932: 54). Mazanet noted that the Payaya were a "very large nation." Of interest from an archaeological perspective, it should be noted that European "trade goods" in the form of rosaries, pocket knives, cutlery, beads, and tobacco were distributed to the Indians.

In 1693, Gregorio de Salinas Varona encountered three Payaya encampments some 30 miles southwest of modern San Antonio (Campbell 1975:7). This encounter may explain the origin of the Spanish place name, El Arroyo de los Payayas, first mentioned in 1718 by the Martín de Alarcón expedition (ibid.). No mention is made of having seen any Payaya in this area by the Alarcón expedition. In 1727, Rivera recorded a stream in the same area with the same name and while he saw no Indians, Rivera said that the locality was favored by the Payaya (Campbell 1975:8). In 1716, Espinosa, as a member of the Ramón expedition, recorded that some Payaya were present at Ranchería Grande located near the junction of Little River with the Brazos River in Milam County (Foik 1933; Tous 1930b; Campbell 1975:9). In 1717, the Louis de St. Denis expedition encountered some Payaya somewhere east or northeast of what is now Austin (Campbell 1975: 10). The group was led to the Payaya encampment six leagues north of the Colorado River where four other groups of Indians also were encamped including the Tziames (Sijame). These groups wandered from the present day Colorado to the Medina River according to St. Denis (ibid.). The shared encampment probably afforded better protection from the marauding Apache. The name Payaya may be associated with the Comecrudo word *payauya'p* meaning "brave or wild" (Swanton 1940:90; Campbell 1975: 15).

ADDITIONAL REFERENCES TO THE PAMPOPAS

The "Panpoc" was the name of an Indian group recorded in 1708 by the missionary Isidro Félix de Espinosa as living east of the three missions established in northeastern Coahuila: San Juan Bautista, San Francisco Solano, and San Bernardo (Campbell and Campbell 1981:45). This area was probably between the present day cities of San Antonio and Laredo along a section of the Nueces River (ibid.). The Pampopas (Pampop) were mentioned by St. Denis in 1717 among the Indians who ranged the territory between the Medina River and the Rio Grande River south of San Antonio (Campbell and Campbell 1981:46). In 1727, the Pampopa were described by Paredes as a nation of about 500 persons living on the lower section of the Nueces River about 22 leagues from the missions San Juan Bautista and San Bernardo which were located

near present day Guerrero (ibid.:46-47). This would place the Pampopas in present-day Dimmit and La Salle Counties (Campbell and Campbell 1981:46-47). The Francisco Álvarez y Barreiro map produced during the Pedro de Rivera inspection of 1724-1728, shows the "tierra de los Pampopas" as indicated by six huts on the right bank of the Nueces River and seven huts on the right bank of the lower Frio River. In terms of modern maps, the ranging area would include present-day La Salle, McMullen, and Live Oak counties (ibid.). The specific locations for the Pampopa on the Medina and Nueces Rivers indicates an approximate 85 mile foraging territory (Campbell and Campbell 1981:46-47). Between 1731-1737, the Pampopas fled mission confinement and were pursued to their rancherías near the "Old Ford" of the Medina River (Bolton 1915:17). This ford hypothetically could be related to the Pampoyes (also Pampopes) crossing, previously identified in the archival record and believed to be associated with the Pampopa Indians (Hindes 1992: 4.4; Table 4.2). Current research has established the location of this crossing in the vicinity of 41BX527 and 41BX528 (see Highley, this volume and Thoms and Ahr, this volume, for further information regarding this crossing and its significance as it relates to possible historic Indian occupation).

ADDITIONAL REFERENCES TO THE PASTIA

Sixteen "Pasti" were encountered by Diego Ramón, military commander of Presidio San Juan Bautista, in 1707, on the Nueces River somewhere in southeastern LaSalle County (Campbell and Campbell 1981:50). Ramón provided the Indians with tobacco and maize and the Pastia joined Ramón's soldiers during the following campaign against the "Pelones," a collective name for certain Indian groups of northeastern Nuevo León (ibid.). Espinosa, who was with Ramón recorded that the Paxti lived to the east of the three missions in northeastern Coahuila (ibid.). The Barreiro map from the Pedro de Rivera inspection of 1724-1728, places the Pastia between the San Antonio River (labelled the Medina River to the coast) and what is believed to be the Cibolo Creek. This area appears to be near the present boundary between Karnes and Wilson Counties (Campbell and Campbell 1981:51). It is interesting to note that the Pastia were the same group known at Mission San José as the Postitos, a Hispanicized diminutive form of the name Pastias (ibid.: 52). An early settlement (denoted by eight squares) located in southeastern Bexar County/northeastern Atascosa County along the "Old Laredo Road" (BCCH, BCA, Road Files) was known as the Positos Settlement (a

copyists error for Postitos?) in the mid-19th century. It is interesting to speculate that the Positos Settlement may be related to this early Indian group. Indeed, this location would be less than 25 miles from Campbell and Campbell's (1981) hypothesized encampments of the early 18th century Pastia as identified from the Barreiro map, and approximately 15 miles from the 1731 location (see below). A descendant of early settlers in northeastern Atascosa County remembers hearing stories from her grandparents about a community of "Indians." These "Indians," who lived just to the north, would visit the homes of the people living in this area (Lena Olivares, personal communication). Some of the Pastia fled Mission San José in 1731 to the Atascosa Spring and an adjacent swamp or bog where many were recaptured (Bolton 1915:17; Campbell and Campbell 1981:52). Campbell places this location northwest of Poteet in Atascosa County (Campbell and Campbell 1981: 52). This location would be to the west of the Positos Settlement of the mid-19th century.

Ramón (1707:62 in Campbell 1981:53) recorded that the Spanish translation of Pastia was *chamuscados* which means scorched, seared, or singed. The final *ti* or *tia* in the name variants is probably related to the Coahuilteco verb *tixam* which meant "to burn" (Swanton 1940:44), and probably referred to some distinctive cultural characteristic (Campbell and Campbell 1981: 53).

ADDITIONAL REFERENCES TO THE SIJAME

Some variants of the name for the Sijames include Cijame, Hihame, Injame, Jijame, Scipzame, Sixacama, Tziame, and Xixame (Campbell 1983:355). The pre-mission territorial range of the Sijames was along the Coahuila mountain front west of Guerrero (Campbell 1988:165). Some Sijame who did not enter the Rio Grande missions migrated northeastward and between 1709-1716, were reported between San Antonio and the lower San Gabriel River (*ibid.*). The Sijames shared an encampment on the Colorado River in 1717 with the Payayas (Campbell 1975:19). As noted above, in 1717, the Sijames also apparently shared an encampment on the Medina River with the Payaya, the Pampopa, and the Pastia. The name Sijames is reported to mean *pes-cado*, Spanish for "fish that have been caught for food" (Anónimo 1778:202-203; Morfi 1856:433-434; Campbell 1988:165).

SOME COMMENTS ON THE POST 1718 ABORIGINAL GROUPS

With the founding of the Mission of San Antonio de Valero in 1718, the native aboriginal groups living in the San Antonio area were relocated from their traditional habitats and concentrated into the San Antonio missions. Campbell and Campbell (1985) have identified many of the groups that entered the San Antonio missions and their numbers. At any particular time, no more than a few hundred Indian individuals drawn from a wide variety of bands inhabited each mission. Many of these, clearly displaced from their traditional homelands and decimated by Spanish-introduced diseases, had already lost their pre-contact cultural systems. Many of the Native Americans were at first willing and eager to enter the missions due to the pressure from the southward-moving Apache into what had traditionally been the homeland of the Coahuilteco groups. It is clear however from the archival record, that a number of the groups resisted the missionization process (either initially or subsequent to their entering the missions). It is difficult to know how much of the aboriginal culture of the mission Indians changed because we do not yet have good data regarding the areal premissionization culture of these Indians and how it may have changed before they were displaced from their traditional homelands. By the end of the 18th century however, the San Antonio mission system was discontinued, either, depending upon one's viewpoint, by the effective assimilation and acculturation of the Native American populations into the Spanish culture, or the ineffectiveness of the mission system. Regardless, by the 17th and 18th centuries, the ethnic identity of most Native American groups had been lost. This decline was partly the result of deaths due to epidemics of diseases, such as smallpox and measles, introduced by the Spaniards. Epidemics of smallpox and/or measles at the Texas missions were recorded in 1674-75, 1707, 1728, 1736, 1739, 1748, 1749 (smallpox), 1751 (smallpox), 1763 (smallpox), 1777, 1779, and 1785/ 1786 (Ewers 1973:108-109). Other causes of this decline included deaths in warfare resulting from rebellions against the Spanish, attacks by other intrusive groups such as the Apache, and disputes with other local groups, migration of remnants to other regions, high infant mortality, dispersion by the Spaniards of the Indians to work in the Spanish mines and *haciendas* (or plantations), and general demoralization (Campbell 1983:347).

The disappearance of native culture cannot be explained on the basis of gradual acculturation and assimilation, but was rather sudden, drastic, and traceable to the elimination of various aspects of the native culture (Ruecking 1954:337). Coahuilteco culture collapsed and was discarded because of the lack of an integrative force and an attempt to find a place within a dominant Spanish culture (*ibid.*:337-338).

THE POTENTIAL FOR IDENTIFYING HISTORIC ABORIGINAL CONTACT SITES ON THE MEDINA RIVER

One significant avenue of archival research is the study of the earliest routes of travel and exploration and associated landmarks through the area or region. By identifying these routes, the possibility exists that we can, with fair certainty, identify the locations of recorded aboriginal groups. River crossings would be good areas to search for possible Historic Aboriginal Contact sites. Indeed, such sites have been identified in the vicinity of documented Spanish colonial crossings on the Medina River (see Thoms and Ahr, this volume; McGraw and Hindes 1987).

Site potential must take into account the limitations of the physical evidence. Suspected sites relating to the Historic Aboriginal Contact period are usually characterized by multiple components that span a great deal of time, often thousands of years. Since the Historic Aboriginal Contact period (as defined above) lasted only ca. 200 years, the material evidence occurs at a shallow depth in the ground, or on the surface. As a consequence, it is prone to modern disturbance. What is more, there is often little stratigraphic separation between the Late Prehistoric and Historic Aboriginal Contact components. The critical diagnostic elements of the material remains that could be used to distinguish Historic Aboriginal Contact sites (e.g. lithic traditions, ceramic traditions, burned rock clusters and/or other features, stylistic differences in tool kits, intra-site occupational patterns, etc.) are thus often unrecognizable or mixed with earlier cultural remains.

We need to locate and isolate cases of primary associations—close contextual relationships between datable components of sites and associated artifacts representing the Historic Aboriginal Contact period. Archaeologists need to examine artifacts diagnostic of the period from known mission sites. Excavation techniques such as those utilized by Curtis Tunnell (Tunnell and Newcomb 1969) at San Lorenzo de la Santa Cruz and Robert Ricklis at the Mitchell Ridge Site, 41GV66 (Ricklis 1993:4) may help to resolve the problem. Without the above, it will be impossible to recognize mixtures of artifacts as they are found in

potential Historic Aboriginal Contact Period sites. As Dr. LeRoy Johnson (personal communication) has pointed out, we must "use less than perfect clues for weak inferences" if the issue between Late Prehistoric and Historic Aboriginal Contact period sites is to be resolved. Strata or surfaces may need to be studied as terminal Late Prehistoric components because it is reasonable to infer that Indians using these styles were in the area prior to the European influence. Site significance should be measured by the potential of a locale to reflect separable material evidence of Historic Aboriginal Contact occupation. One noteworthy characteristic of this period is the abrupt change/replacement of arrow point styles (e.g. contracting stemmed points to triangular styles) and, possibly ceramic variations that occurs somewhere in the terminal Late Prehistoric to Historic Aboriginal Contact period. It is possible that the causal factors of these changes preceded any direct European contact and simply marked the end of the Toyah phase. Such a change in material culture may simply reflect a change of cultural groups in the region, like the Austin/Toyah separation. Or, perhaps these changes may have been caused by indirect extra-regional historical influences. Other artifacts associated with the Historic Aboriginal Contact Period include metal knives, metal arrow points, glass beads (baubles), glass, copper kettles, and guns.

Clearly, an overlap with Toyah phase sites exists within the parameters of the suggested Historic Aboriginal Contact Period as evidenced by the dates obtained from Toyah phase sites. Johnson (1994:256-258) places the Toyah phase from approximately A.D. 1300 to A.D. 1650. Elton Prewitt (personal communication) believes the dates A.D. 1200 to A.D. 1750 to be indicative of the Toyah phase. However, we lack recognizable historic materials in a Toyah based context.

SUMMARY

In summary, the regional Historic Aboriginal Contact period is poorly understood, defined, or documented through the archaeological record. However, through careful examination and analysis of the available ethnohistoric and historic documentary sources, researchers can contribute to our understanding of the period, as well as offer predictive models regarding potential Historic Aboriginal Contact sites.

ACKNOWLEDGMENTS

The core of this paper originated when I was asked to present data regarding the Protohistoric Period at a public meeting for the Applewhite Reservoir Project. This meeting, held at the Witte Museum in January,

1990, was co-hosted by the Southern Texas Archaeological Association, the Texas Historical Commission, and the San Antonio City Water Board. As the Project Historian for the Applewhite Project, I felt totally inadequate to address the Protohistoric Period, but as I had learned during the course of the studies for the reservoir project, so did everyone else connected with the undertaking. In fact, constant discussion centered around "who" would be responsible for potential Historic Aboriginal Contact sites: the prehistoric archaeologists or the historic archaeologists? Consequently, I did what any sensible research historian would do: I sought advice from those archaeologists who seemed most qualified to discuss the issue with me (or willing or available!). I owe a great debt of gratitude to LeRoy Johnson, Al McGraw, and Elton Prewitt, all of whom spent countless hours with me discussing the Protohistoric Period and helping to formulate my comments.

Subsequently, the original 1990 presentation was reworked and greatly expanded based on continued research. A version of this paper was given in Houston, Texas at the Texas Historical Commission's Annual Historic Preservation Conference, *Exploration: Columbus to Columbia*, held April 23-26, 1992.

Drafts of this chapter were reviewed by Grant Hall, Sam McCulloch, Tom Hester, Alston Thoms, Lynn Highley, and Evelyn Lewis. Their comments certainly improved the content of this article, although I have to admit that at least one reviewer didn't "understand the fuss over protohistoric.../and believes/ it a perfect term for that era...when the Indians were neither Late Prehistoric nor Historic, nor Missionized...". As such, I take full responsibility for errors or omissions, and any resulting discussion and/or debate.

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**THE PAMPOPA-TALON CROSSINGS AND HEERMANN RANCH SITES:
PRELIMINARY RESULTS OF THE 1994
SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION FIELD SCHOOL**

Alston V. Thoms and Steven W. Ahr

ABSTRACT

Archaeological investigations at the Pampopa-Talon Crossings site (41BX528) yielded Perdiz arrow points, bone-tempered pottery, medium and large end-scrapers, as well as cobble tools designated as "slickstones" in the uppermost sediments (0 to 30 cm). These materials were deposited on the terrace top during the last 1,500 years. The abundance of end-scrapers and slickstones suggests that hide-processing activities were especially important. Backhoe trenches revealed the potential for intact archaeological deposits and stratigraphically distinct occupation surfaces in the pecan bottoms below the Pampopa-Talon Crossings site.

Test excavations at the Heermann Ranch site (41BX527) yielded an abundance of ceramic, glass, and metal artifacts that date from the late 1700s to the present. The presence of a mid-nineteenth century household midden behind the 1886 rock barn was confirmed. This suggests the presence of a mid-nineteenth century residential structure somewhere in the immediate vicinity, perhaps where the barn is now located. Recovery of several diagnostic ceramic fragments and thin window glass from the late 1700s and early 1800s raises the possibility of an early Historic occupation at the site.

About 100 individuals attended the Southern Texas Archaeological Association (STAA) field school for one or more days. The field school was held September 23-30, 1994, at two sites on the Billy Mitchell property along the Medina River, about 20 km south of San Antonio, Texas (Figure 1). Many of the participants assisted in surface collecting stone artifacts and ceramics from the Pampopa-Talon Crossings site (41BX528), and in the exploratory excavation of the site's Late Prehistoric/early Historic component. Other participants helped in the exploratory excavation of a mid-1800s household-midden deposit at the Heermann Ranch site (41BX527). Still others worked in the field laboratory, washing, sorting, and cataloging artifacts recovered from these sites.

The Pampopa-Talon Crossings and Heermann Ranch sites were first investigated in the early 1980s during an archaeological survey for the proposed Applewhite Reservoir by the Center for Archaeological Research (CAR), University of Texas at San Antonio (UTSA). Follow-up test excavations in 1989-1990 by archaeologists from Texas A&M University (TAMU) and Southern Methodist University (SMU) demonstrated that both sites were eligible for inclu-

sion in the National Register of Historic Places. At that time, recommendations were made for further excavations, but the recommended work was postponed pending the outcome of two public referendums in San Antonio to determine whether or not the reservoir would be continued.

When the 1994 field school was planned, the "best guess" was that the referendum would be passed, reservoir construction would proceed, and the field school would help carry out some of the recommended work. Moreover, land owner Billy Mitchell had plans for his own improvements and landscape modifications that could impact sites 41BX527 and 41BX528. In any case, the STAA field school afforded the opportunity to recover important archaeological information that would otherwise have been destroyed. Accordingly, the field school's scope-of-work and research objectives were directly derived from recommendations and research designs developed by TAMU and SMU archaeologists in the early 1990s and approved by the Texas Historical Commission.

The principal investigator for the 1994 field school was Alston Thoms, associate director of the Center for Environmental Archaeology (CEA) at Texas

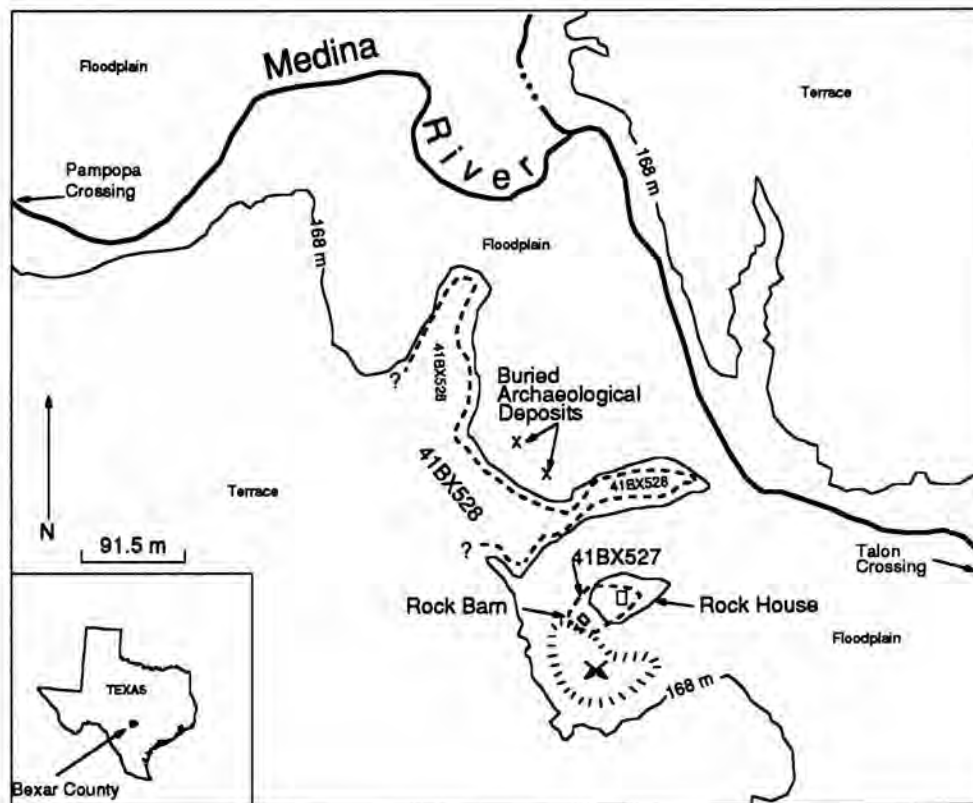


Figure 1. Map showing locations of the Pampopa-Talon Crossings site (41BX528) and the Heermann Ranch site (41BX527).

A&M University, and project director for CEA's Applewhite Reservoir archaeological project (Thoms 1994). He was assisted by several other CEA staff members. They guided and worked with field school participants to establish the grid, to map surface artifact distributions, and to record proveniences of excavated artifacts at 41BX528 using an electronic distance measurer (EDM). They also assisted participants in the preparation and description of stratigraphic sections along cutbanks and in backhoe trenches, as well as in the use of CEA's "computerized" excavation and artifact analysis forms. Archaeologists from the Texas Archeological Research Laboratory (TARL) at the University of Texas at Austin provided additional assistance in mapping site topography, artifact distributions, excavation units, and backhoe trench profiles using their EDM. Well-experienced STAA members served as crew chiefs at 41BX527 and 41BX528, as the site secretary at 41BX528, as the field director at 41BX527, as the field laboratory director, and as site managers providing field and lab crews with their every need.

This report presents preliminary descriptive and interpretive results of the field school excavations and initial analyses. Results of further research and analyses of the sediments and recovered artifacts will be incorporated into previous work at the Pampopa-Talon Crossings site and will be presented in CEA's forthcoming reports on the overall Applewhite Reservoir archaeological project.

41BX528: THE PAMPOPA-TALON CROSSINGS SITE

We named 41BX528 the Pampopa-Talon Crossings site to focus attention on its location between two river crossings — the Pampopa and Talon — along eighteenth century Spanish roads which connected points along the Rio Grande River with the San Antonio area. Spanish chroniclers and others routinely encountered various Indian groups, including the Coahuilteco-speaking Pampopa, encamped near these and other Medina River crossings (Hindes 1992; McGraw and Hindes 1991; see also Hindes,

this issue). It is likely that most Spanish roads followed Indian trails that had traversed the south-central Texas inner Gulf Coastal Plain for thousands of years. The site's setting along such an important travel and commerce corridor would have been ideal for distributing locally procured resources (e.g., meat, hides, nuts) to Indian groups or to the region's Spanish inhabitants.

Site Setting

The Pampopa-Talon Crossings site is on a terrace rising 12 meters above the Medina River floodplain (Figure 1). From our work at other sites along the river, we know this as the Applewhite terrace; it often contains artifacts and features buried more than 10 meters below surface, with Late Prehistoric materials confined to the upper 40 cm of terrace fill (Thoms and Mandel 1992). The Pampopa-Talon Crossings site is long and narrow (20 to 50 meters), paralleling the edge of the terrace for more than a kilometer and containing two peninsula-like terrace remnants or "arms" surrounded on three sides by the floodplain. Our efforts during field school focused on the east-trending terrace remnant. The present-day, onsite vegetational regime is a mesquite-oak savannah and a deciduous forest with pecan, water elm, sycamore, and cypress along the river occupying the floodplain. Spanish chroniclers' accounts indicate that general vegetation patterns in the site area have been similar for at least several hundred years, encompassing the latest prehistoric and the earliest Historic periods (Robbins 1991).

The Medina River floodplain is typical of riparian habitat in south-central Texas in that it is a high-diversity resource zone with relatively high productivity potential (Hester 1989b:123). It is also important to point out the ecotonal setting of the site, and the lower Medina River valley in general, because it affords ready access to an unusually wide variety of resources (Guderjan et al. 1992; Thoms 1992). Three major environmental zones converge within a few kilometers of the Pampopa-Talon Crossings site: (1) juniper-oak-mesquite savannah of the Edwards Plateau to the north and northwest; (2) bunch grass and short grasses on the Blackland Prairie to the north and northeast; and (3) a combination of mesquite-chaparral savannah and oak-hickory forest that surrounds the site area and extends to the south, west, and east (Arbingast et al. 1976:13). Bison,

deer, pronghorn, rabbits, river mussels, fish, pecans, prickly pear, and various roots would have been readily available and abundant food resources in the site area (Hester 1989a; McGraw and Robbins 1991; Thoms 1992).

Previous Investigations

In the early 1980s, 41BX528 was recorded as an extensive prehistoric occupation zone. The recovery of a probable Guerrero point and sherds from Indian-made pottery, together with the Spanish chroniclers' observations that the Pampopa and other Indian groups camped nearby, led archaeologists to suggest that the site might contain evidence for historic Indian occupations (McGraw and Hinds 1987:169-170). In a 25 m² mechanically disturbed area of the site, CAR/UTSA archaeologists observed the remains of intact fire-cracked rock features, as well as a dense scatter of mussel shells, fire-cracked rocks, chipped-stone debitage, and ceramics. They concluded that although much of the site had been damaged by natural processes and recent mechanical activities, part of it might be significant in terms of criteria established for inclusion of a property on the National Register of Historic Places. Site assessment by test excavation was recommended to identify and isolate intact deposits and features related to Late Prehistoric and/or Historic periods (McGraw and Hinds 1987).

The recommended assessment work was undertaken in 1989 and 1990 by TAMU. Testing results and discussions with local individuals knowledgeable about the recent history of onsite land modifications confirmed the extensiveness of site disturbances. It was clear, however, that Late Prehistoric and possible Historic Indian artifacts were especially abundant on the surface and in the upper 30 cm of terrace fill on the eastern-trending terrace remnant. Recovered artifacts included Scallorn, Perdiz, and Guerrero arrow points, many large end-scrapers, several large bifaces, as well as dozens of bone-tempered sherds and one small fragment of non-Indian, light-green, lead-glazed pottery (Archaeological Research Laboratory 1991:9-15). Late Prehistoric and possible Historic materials were abundant in the upper 30 cm of terrace fill, and Archaic-aged artifacts were found in lower densities to depths of at least 0.8 meters below surface.

TAMU archaeologists concluded that the eastern

part of the site, with its relative abundance of arrow points, ceramics, and large end-scrapers, represented one of the most important areas in the proposed reservoir area, thereby confirming the site's National Register significance. Recommendations were made for additional excavations in this area of the site to determine the extent and character of any intact deposits from the Historic period, and if intact deposits were found to be of sufficient size, full-scale excavations should be undertaken (Archaeological Research Laboratory 1991).

Research Strategies

Research strategies for the 1994 STAA field school were designed to be consistent with those developed for our ongoing Applewhite Reservoir archaeological project. The theoretical perspective for the Applewhite project focuses on changes in site structure and mobility strategies over time (Carlson et al. 1990). Much of our research concerns paleoenvironmental conditions and their effects on land-use patterns, but we also want to examine the roles of population growth or packing and other "prime movers" that condition land-use intensification (Mandel and Caran 1992; Thoms and Mandel 1992). Field methods were designed to discover and excavate intact, feature-rich deposits and occupation surfaces, as well as moderately disturbed occupation zones containing temporally or functionally distinctive cultural material assignable to relatively brief time periods. Analytical methods focus on describing and comparing artifact and feature assemblages from late Paleo-Indian through Late Prehistoric components (Thoms 1992). Both field and analytical methods make extensive use of electronic distance measure (EDM) and computerized systems.

Data derived from the STAA field school excavations at the Pampopa-Talon Crossings site afford the opportunity to study Indian land use during the Late Prehistoric and early Historic periods. Of particular interest is the presence of Perdiz and other prehistoric arrow points, as well as Historic period Guerrero arrow points along with bone-tempered pottery, which would fit comfortably within the loosely defined Leon Plain (prehistoric) and/or Goliad (Historic) pottery types (Black 1986b:190-191; Black 1989a). The association of Perdiz arrow points, bone-tempered pottery, beveled knives, and small end-scrapers is characteristic of the Late Prehistoric

Toyah horizon throughout much of central and southern Texas (Black 1989a, 1989b). Insofar as bison were reported in great abundance in the lower Medina River basin from the late 1600s and 1700s (Robbins 1991; also see Hindes, this issue), this pattern can be expected to have continued well into the Historic era.

Bison remains, along with beveled knives and end-scrapers, are common at many Toyah horizon sites, prompting the suggestion that at least some of them represent a specialized hunting adaptation type (Hester 1989b). The Buckhollow Encampment site (41KM16) in the Llano River basin of central Texas (Johnson 1994), and 41LK201 in the Frio River basin of south Texas (Highley 1986) are especially exemplary of this pattern. The Buckhollow site, as well as the Southwest School site (41BX980) which is situated about 25 km upstream from 41BX528, contain unusually high frequencies of large end-scrapers that were interpreted as bison-hide scrapers (Johnson 1994; Warren and Tate 1994). As noted, large end-scrapers are also very common at the Pampopa-Talon Crossings site, but neither bison bone nor beveled knives have been recovered from the site. In other words, some, but not all, elements of the specialized bison-hunting adaptation are present at the Pampopa-Talon Crossings site, suggesting that it may contain evidence for a discrete subset of hunting-related activities.

Our working model is that hide-processing was especially important at the Pampopa-Talon Crossings site, with fresh hides being transported to the site from nearby kill and butchering sites. An important research objective, therefore, is to use the information derived from the field school project, together with ethnohistoric data, to assess this model. Consistent with earlier (1990) recommendations for additional investigations at 41BX528, field work for the 1994 STAA field school was specifically designed to determine the extent and character of any intact deposits in the eastern part of the site that could be assigned to the prehistoric or Historic period.

Several methods were employed to determine the extent and nature of intact Late Prehistoric and possible Historic deposits: (1) point-provenience collection of stone tools and ceramics on the terrace surface to document spatial relationships among artifacts believed to be temporally or functionally related; (2) hand excavation of test pits and narrow, shallow trenches on the terrace to assess the nature of

artifact concentrations exposed on the surface, and to determine the degree of intactness of subsurface sediments and the cultural materials contained therein; and (3) excavation of backhoe trenches on the floodplain below 41BX528 to search for buried archaeological deposits, including those that might yield information about sites located in the pecan bottoms. In addition, a detailed study was made of available aerial photographs to assess the extent of landscape modifications since the 1930s. Field school participants also conducted a metal-detecting survey of the site area.

Field Work and Site Integrity

Field work demonstrated that much of the site's eastern arm is fairly well preserved. Sam McCulloch's study of 1938 aerial photographs showed that the eastern-most end of the site had probably never been plowed, that the stand of mesquite trees which today occupies the central part to the eastern arm was also there in 1938, and the area west of the trees was in cultivation at that time (Figure 2). With the exception of fence lines, no structural remains were

observed on the 1938 aerial photographs. McCulloch also noted that the terrace edges were significantly more eroded by gullies in 1938 than they are today, and he suggested that the gullies had been in-filled using heavy machinery sometime during the last few decades.

Remains of the fence line just west of the stand of mesquite trees that appeared on the 1938 photograph were detected by Marie Wiesman and Carol Jameson during the metal-detecting survey. They also found shotgun-shell casings and pieces of rusted wire, probably from a hog-wire fence, scattered throughout the eastern arm area, with moderate concentrations of wire in the vicinity of hand-dug trench C and among the mesquite trees. The lack of other metal artifact concentrations is consistent with the absence of non-fence structures in the 1938 aerial photograph.

Interviews with local residents revealed that what initially appeared to be evidence for significant mechanical disturbances, in fact, resulted from activities that caused relatively minor impacts to the surface and near-surface sediments on top of the terrace. In 1965, a bulldozer was used to push the low brush covering much of the site into piles that

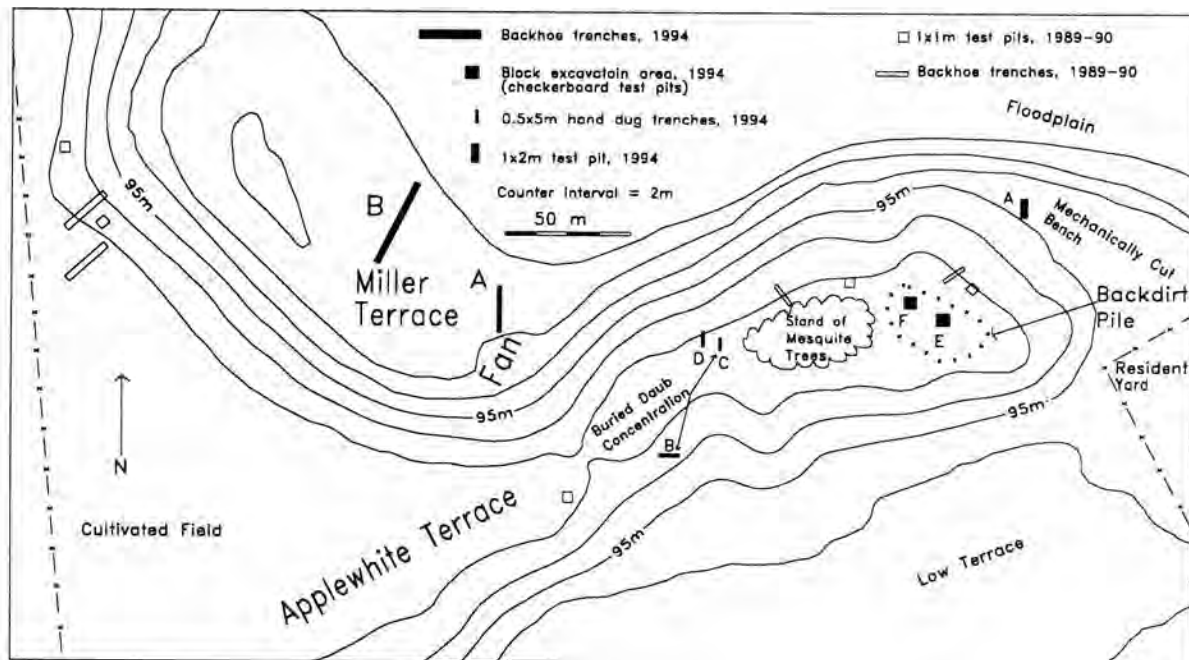


Figure 2. Map showing locations of excavation units and major landforms at the Pampopa-Talon Crossings site.

were then burned and leveled. Apparently, it was about this same time that a bulldozer was used to push sediments along the outer edges of the site into the gullies and create uniform slopes between the terrace edge and the floodplain. The 25 m² disturbed area noted in 1984 (McGraw and Hindes 1987) resulted from bulldozer activity during a brief sales demonstration. Finally, the large pile of backdirt on the eastern end of the site was placed there in the late 1980s as fill from a bulldozer-cut bench on the slope at the eastern end of the site (Figure 2). This bench was made to reduce sheet erosion that threatened to impact a residential structure and backyard at the base of the terrace.

STAA field school participants worked in six excavation areas designated as blocks, and in two backhoe trenches on the adjacent floodplain. Our primary objective was to assess site integrity in those parts of the site that were not tested in 1989 or 1990, namely the interior part of the peninsula-like landform (Figure 2).

Block A. A single test pit (1 x 2 x 0.5 meters) was placed on the machine-cut bench at the eastern end of the site to sample sediments buried approximately 3 meter sbelow the terrace surface. Cultural materials were not recovered from this unit. The upper 20 cm of sediment exposed in the test pit wall proved to be recent slope wash. However, the underlying silty clay appeared to represent a B/C soil horizon that may correspond to part of the Leon Creek paleosol which is 3 meters thick and dates from about 3,000 to 4,000 B.P. elsewhere in the Applewhite Reservoir area (Thoms and Mandel 1992).

Block B. A narrow, hand-dug trench (0.5 x 5 x 0.9 meters) was placed on a slight bench along the south slope of the site where a concentration of burned daub (some with stick imprints), along with a few pieces of chipped-stone debitage and fire-cracked rock (FCR), were exposed on the surface. We wanted to assess the possibility that the concentration might represent the remains of a wattle-and-daub structure, and at the same time search for and sample intact deposits buried about 2 meters below the terrace surface. The burned daub was largely confined to the upper 30 cm, and the trench profile revealed several lenses of recent slope wash, all of which contained chipped-stone debitage and fire-cracked rock. We concluded that the daub concentration represented the remains of a recently burned

brush pile, and that the buried cultural material was redeposited from the terrace top.

Block C. This narrow, hand-dug trench (0.5 x 4 x 0.3 meters) was placed in the central part of the terrace top, west of the mesquite trees, where a concentration of burned daub, along with several large sandstone rocks, chipped-stone debitage, and FCR, were exposed on the surface. Here, too, we wanted to assess the possibility that the concentration represented the remains of a wattle-and-daub structure. We also wanted to determine the integrity of the underlying sediments we believed would contain Late Prehistoric and possibly Historic materials. The burned-daub lens turned out to be the remains of another burned brush pile, probably from the 1965 clearing episode. As seen in the trench profile and during excavations, the base of the plow zone (ca. 25 cm in depth) was delineated by a marked increase in the density of cobble-sized FCR and flat-lying, whole mussel shells, as well as by well-developed, polygon-shaped drying cracks. There was no evidence for mechanical disturbance in the underlying A horizon, although bioturbation from roots and rodents was evident. FCR and chipped stone, including an arrow point fragment, as well as bone-tempered ceramics and a few pieces of glass and metal, were recovered from the AP and A horizons (silty clay loam), mostly in the upper 20 cm.

Block D. Another hand-dug trench (0.5-1.0 x 6 x 0.3 meters) was placed on the terrace edge near Block C to sample a concentration of bone-tempered ceramic fragments that appeared to be eroding from a few centimeters below the terrace surface. Here, too, chipped-stone artifacts, mussel shells, ceramics, and a few pieces of twentieth century glass and metal were recovered from the AP and A soil horizons. The trench profile was similar to the one in Block C, except that the down-slope end lacked a clearly defined plow zone and may have been impacted by slope wash and possibly by mechanical disturbances. The upslope half was relatively undisturbed, as indicated by a concentration of flat-lying, whole mussel shells at the base of the plow zone.

Block E. Four test pits measuring 1 x 1 x 0.1-0.3 meters were placed within a 5 x 5-meter area in the central part of the terrace top at the eastern end of the site where the large backdirt pile had been located. Ray Smith and Mike Fulghum had used front-end loaders to remove the backdirt pile. Our

goal was to expose and excavate what we anticipated would be an area of the site that had remained protected, under the backdirt pile, from the most recent round of mechanical disturbances. All those who participated in these excavations quickly learned that it was exceedingly difficult to accurately distinguish between the rock-hard, redeposited, A-horizon sediments at the base of the backdirt pile and the equally compacted, in situ A-horizon sediments under the backdirt pile. We rendered the sediments "digable" by soaking each 1 x 1-meter unit in water and a chemical dispersing agent (i.e., Calgon) for many hours. Invariably, but inadvertently, we began our excavations in the backdirt because we mistook it for the intact A horizon. In profile, however, the upper boundary of the intact A horizon was usually readily discernible; it was marked by the appearance of well-preserved, polygon-shaped drying cracks extending into the A horizon, and often by a thin lens of partially decomposed grass, leaves, and twigs. Consistent with Sam McCulloch's interpretations of the 1938 aerial photographs, the apparent absence of an AP horizon and the fact that most large artifacts were found in horizontal angles of repose indicated that this part of the site had not been plowed. Chipped stone, mussel shells, ceramics, and FCR, along with a few pieces of metal and glass, were recovered from both the backdirt and the in situ A-horizon sediments.

Block F. Five test pits measuring 1 x 1 x 0.1-0.2 meters within a 5 x 5-meter area were also placed where the backdirt pile had been located. Rock-hard sediments were also encountered and softened with water and Calgon. The same kinds of stratigraphy and artifacts as were found in Block C were encountered. Test pit profiles showed an abrupt boundary, albeit a wavy one, between the backdirt and the intact A-horizon sediments.

Backhoe Trench A. A trench measuring 1 x 15 x 1.5 meters was dug on the toe of a fan formed at the mouth of a gully, capping a remnant of a low, sometimes flooded, terrace at the base of the Applewhite terrace. This landform may be the Miller terrace and associated paleosol, ca. 1,500 years old, identified elsewhere in the proposed Applewhite Reservoir area (Thoms and Mandel 1992); however, it could well be much younger, perhaps no more than a few hundred years old. Our objective was to discover whether archaeological deposits were present

in the pecan bottoms. The trench profile revealed that the fan was underlain by a paleosol with a well-preserved, organic-rich A horizon (fine sandy silt loam). Several pieces of FCR and chipped-stone debitage, all lying in horizontal angles of repose, were found in the A horizon, about 30 cm below its upper boundary and about 1.2 meters below the surface of the fan. It seems likely that these materials are part of a well-preserved Late Prehistoric occupation surface, but the few recovered artifacts tell us little about site function.

Backhoe Trench B. A second trench, 1 x 30 x 1.5 meters in size, was also dug on the low flood terrace, beginning at the scarp and extending across a levee-like landform. The profile revealed what appeared to be the same paleosol found in Backhoe Trench A, but here it was buried beneath about 30 cm of recent alluvium. Approximately 25 meters from the terrace scarp, we found several flat-lying mussel shells and one cobble tool (i.e., a "slickstone"—a tabular, stream-worn pebble with scratch marks and polished areas [Abbott 1881]), all about 30 cm below the paleosol's upper boundary (or 60 cm below surface), and near the top of a series of well-sorted, water-deposited lenses of silty sediment. Given that these materials occurred in approximately the same stratigraphic position as the artifacts in Trench A, it seems likely the mussel shells and slickstone represent elements of a Late Prehistoric encampment of undetermined function.

Surface Collection. More than 75 field school participants combed the surface of Pampopa-Talon Crossings site and found several hundred temporally and functionally diagnostic artifacts that were subsequently mapped in place using the EDM. The most common artifacts were ceramics, cobble tools, end-scrapers, and projectile points, but bifaces of various sizes, side-scrapers, pieces of hematite, a few bone fragments, a chipped-stone drill, and a fragment of shell ornament were also recovered (Table 1). The vast majority of these artifacts were found along the terrace edge and the upper part of the slope where slope erosion is actively exposing cultural materials in the upper two meters of terrace fill. Interestingly, almost all of the dart points were recovered lower on the slope than most of the arrow points and ceramics. This pattern suggests that even along the edge of the landform where we believe the site is least well preserved, most of the Archaic-aged material appears

Table 1. List of Artifacts Recovered from the Pampopa-Talon Crossings Site (41BX528).

Artifact Type	Surface Collected	Excavated	Total
<i>Prehistoric Artifacts</i>			
Debitage	6	1,380	1,386
Core	9	5	14
Modified thick flake (inc. end-scrapers)	50	8	58
Modified thin flake (inc. end-scrapers)	20	14	34
Thick biface	9	4	13
Thin biface (inc. 1 drill)	13	4	17
Arrow point	14	9	23
Dart point	11	-	11
Untyped point	1	-	1
Cobble tool (inc. slickstones and blanks)	68	2	70
Hammerstone	3	1	4
Gooved/incised stone	1	-	1
Grinding slab	6	-	6
Pecked/ground stone	1	-	1
Indian ceramic	93	83	176
Bone artifact	1	-	1
Shell artifact	1	-	1
Fire-cracked rock	20	167	187
Burned matrix	1	1,676	1,677
Hematite/ocher	5	13	18
Other	-	1	1
Subtotal	333	3,367	3,700
<i>Miscellaneous</i>			
Unaltered cobbles	7	-	7
Unaltered pebbles	-	36	36
Subtotal	7	36	43
<i>Faunal/Floral Remains</i>			
Rabdotus	-	331.59 g	331.59 g
Gastropods	-	665.40 g	665.40 g
Mussel near-complete and umbo	233	234	
Mussel fragments	70	941	1,011
Charcoal fragments	26	26	
Bone	18	172	190
Other floral remains	3	5	8
Subtotal	92	1,377	1,469
<i>Historic Artifacts</i>			
Undecorated coarse earthenware	1	-	1
Undecorated whiteware	1	1	2
Amber glass	-	3	3
Agricultural hardware cast	1	-	1
Architectural hardware cast	4	4	
Metal wire	2	3	5
Cut nails	-	1	1
Wire nails	-	2	2
Ammunition	5	-	5
Metal undetermined	12	13	
Other materials	1	-	1
Subtotal	12	26	38
TOTAL	444	4,806	5,250

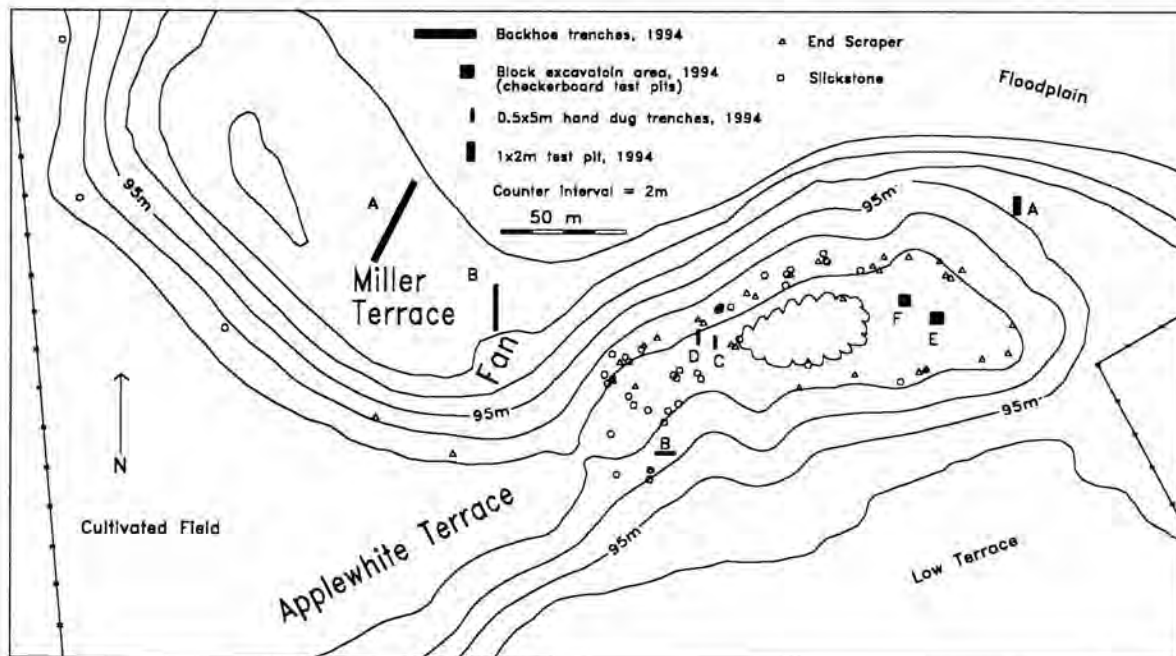


Figure 3. Map showing locations of end-scrapers and slickstones from the surface of the Pampopa-Talon Crossings site.

to occur well below the Late Prehistoric and possible Historic artifacts and features.

We also wanted to use surface collection data to determine the spatial association of artifact types that we believed might be functionally related. In particular, we were interested in the spatial association of two artifacts believed to have been used in hide-processing—end-scrapers and “slickstones” (stream-worn cobble tools with peck-marked, scratched, and usually polished surfaces that may have been used to remove hair and soften hides [Abbott 1881]). Insofar as both tool types are reported to have been used by women processing green bison hides (e.g., Ewers 1958), we expected them to be found in the same parts of the site. While the distribution pattern is not especially clear-cut anywhere at the site, both tool types were often found together on the surface in the central part of the site (Figure 3), suggesting that even surface artifacts may retain enough of their spatial integrity to delimit activity areas.

Discussion. It is worth emphasizing that none of the profiles at the Pampopa-Talon Crossings site revealed evidence for extensive mechanical disturbances other than plowing. Importantly, this indicates

that these portions of the site retain much of their presettlement integrity. Insofar as arrow points and bone-tempered pottery were recovered from the best-preserved portions of the AP horizon in Blocks C and D, and from the most intact portions of the A horizon in Blocks E and F, we are confident that the uppermost 10 to 20 cm of the site contain Late Prehistoric and possibly Historic cultural materials. It is also important to point out that large end-scrapers were recovered from the same levels as the arrow points and ceramics (Table 2).

In the previously cultivated area west of the stand of mesquite trees, there is little likelihood of distinguishing between Late Prehistoric and Historic materials, unless horizontally discrete occupation or activity areas of different ages can be identified. However, in the apparently unplowed areas within and east of the stand of mesquite trees, the potential remains that the elusive Historic component may be largely confined to the surface and near-surface deposits (i.e., the uppermost 5 to 10 cm) and underlain by Late Prehistoric materials. Some degree of vertical separation between Late Prehistoric and Historic deposits would be expected if very high

Table 2. List of Temporally and Functionally Diagnostic Tools of the Pampopa-Talon Crossings Site by Level and Excavation Area.

	Depth Below Original Surface (cm)		
	0-10	10-20	20-30
Block C			
Arrow point	1	-	-
Indian ceramic	1	4	-
End-scraper	1	-	-
Slickstone	1	-	-
Block D			
Arrow point	2	2	-
Indian ceramic	49	18	-
End-scraper	-	1	-
Slickstone	-	-	-
Block E			
Arrow point	1	-	-
Indian ceramic	1	-	-
End-scraper	-	-	-
Slickstone	-	-	-
Block F			
Arrow point	1	-	-
Indian ceramic	2	-	-
End-scraper	1	-	-
Slickstone	-	-	-

floods capped the Applewhite terrace and deposited thin mantles of silt and clay, or if windblown sediments were deposited during the last few centuries. However, even the unusually high flood, as reported in the Heermann account book to have risen about 30 feet above the normal Medina River level (Kay Hines, personal communication 1995; see Highley, this issue), would still have been seven to ten feet below the surface of the Pampopa-Talon Crossings site.

The discovery of cultural materials buried in the pecan bottoms below the Pampopa-Talon Crossings site is especially intriguing. In this setting, rates of sediment deposition were much faster during the last few hundred years than they were on the surface of the Applewhite terrace, suggesting that comparatively better-preserved occupation surfaces and activity areas should be found in the bottomlands. This kind of depositional environment should also afford better stratigraphic separation of Late Prehistoric and Historic components. What is especially intriguing

about the discovery of these ostensibly intact archaeological deposits is their potential to yield reliable data on how the people might have used this part of the landscape, especially with regard to the role of pecans and aquatic resources.

Recovered Cultural Materials

Surface-collected materials provide the best indication of the range of artifact types and time periods represented in the upper 2 to 3 meters of terrace fill at the Pampopa-Talon Crossings site. With the notable exceptions of dart points and groundstone, however, most of the site's tool types were also found in excavation units (Table 1). In general, the kinds of projectile points, tool types, and ceramic artifacts recovered during field school (Figures 4 through 9) are similar to those reported by previous investigators (Archaeological Research Laboratory 1991; McGraw and Hines 1987).

A wide range of tasks is represented by the recovered materials (Table 1), including food procurement, processing, and camp maintenance activities; however, except for the excavated materials, we cannot be sure which activities were temporally related. In any case, the recovered faunal materials tell us that deer and rabbit-sized animals, as well as river mussels, provided food for the site's inhabitants. Plant-food processing is probably indicated by the grinding slabs and stones. Big-game hunting is evidenced by the numerous projectile points (Figure 4); the thick and thin bifaces suggest butchering-related activities. Hide-processing is well represented, as inferred by the numerous modified flakes, especially the end-scrapers, and possibly the slickstones in the cobble tool category. The many fragments from ceramic vessels and the widespread occurrence of fire-cracked rock probably indicate residential and camp maintenance activities, as do the paint stones (hematite or ocher), a shell artifact (possible pendant fragment), a drill, as well as a variety of edge-modified tools (Figure 5). The abundance of chipped-stone debitage also indicates that the manufacture and maintenance of stone tools were also important activities.

Projectile points. The Middle Archaic is represented by Pedernales dart points, the Late Archaic by Marcos and possibly Pedernales points, and the Transitional period by Ensor and probably Marcos

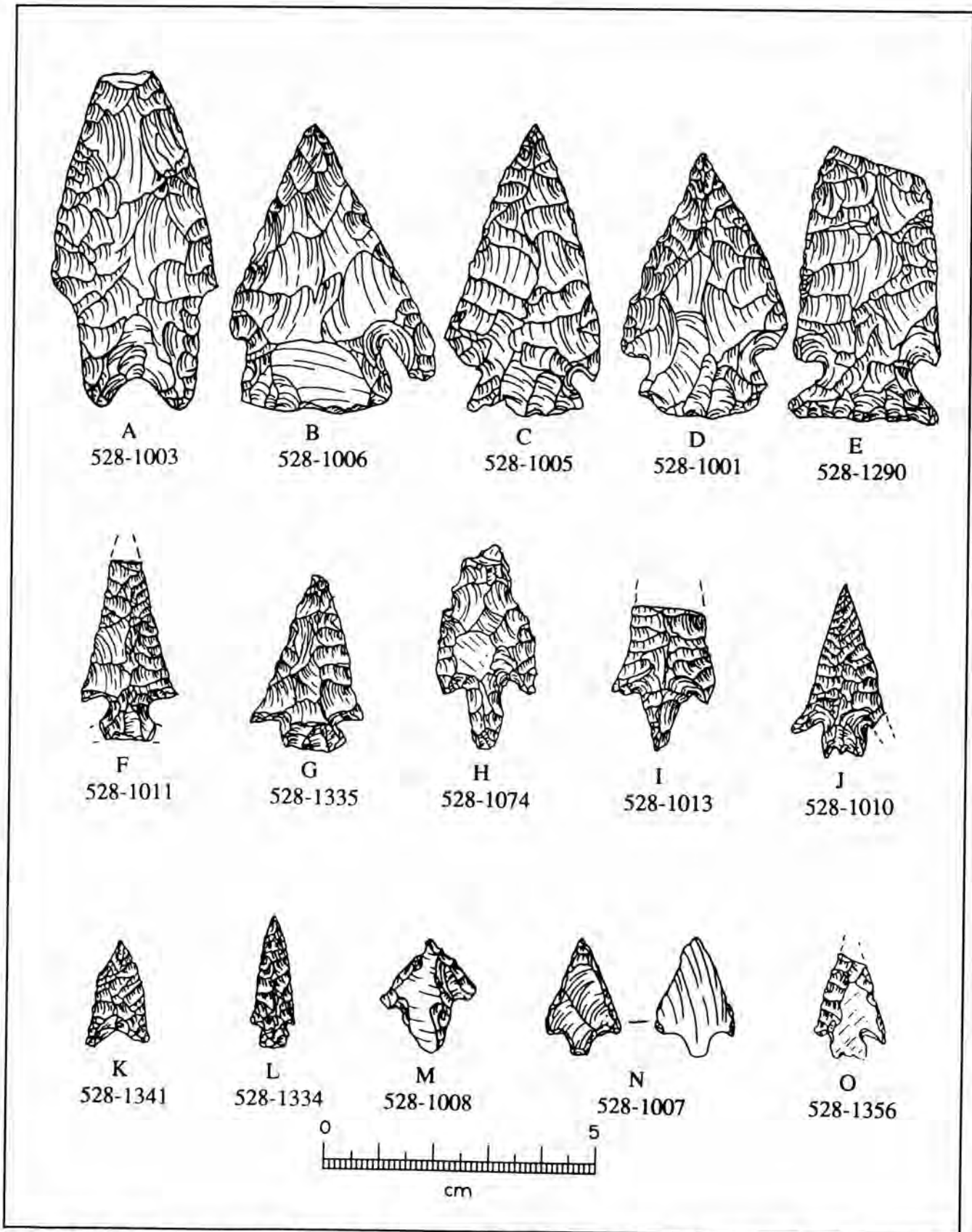


Figure 4. Dart and arrow points from the Pampopa-Talon Crossings site: A, Pedernales; B-D, Marcos; E, Ensor; F-G, Scallorn; H-I, Perdiz; J, Cuney; K, Guerrero; L, very thin, stemmed, almost unifacial point; M-N, Perdiz-like; O, Cuney.

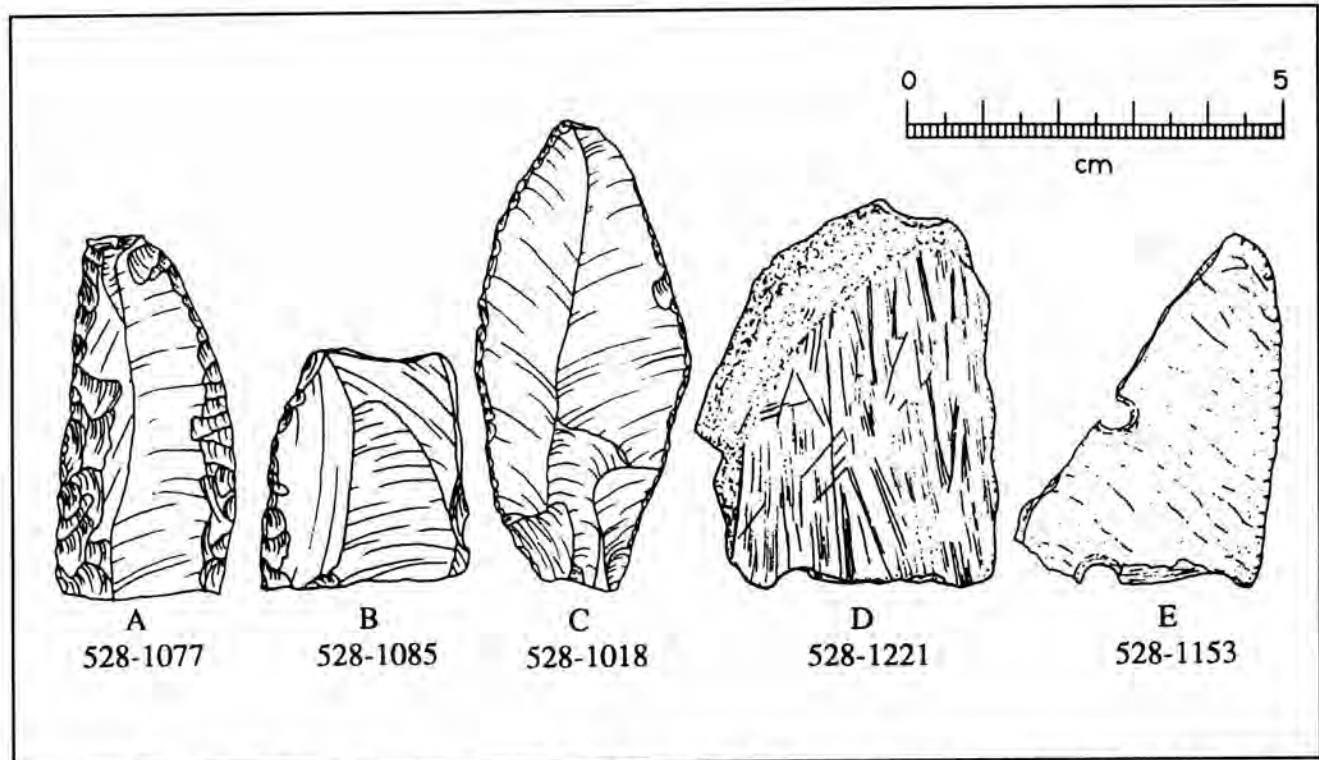


Figure 5. Modified-edge tools, palette, and shell from the Pampopa-Talon Crossings site: A-C, side-scrappers; D, scratched ocher; E, conch-shell ornament fragment.

points as well (Figure 4). The Late Prehistoric period is well represented by Perdiz and Scallorn arrow points and probably Cuney points. A Guerrero point (one of three from the site), and possibly the two Cuney points, are indicative of Historic period occupations (Turner and Hester 1993). In addition, the thin, marginally flaked Perdiz-like points (Figure 4 M-N), as well as the very thin, almost unifacial leaf-shaped arrow point (Figure 4 L), could also be indicative of early Historic occupations. Archaeological folk wisdom often attributes expediently made arrow points to the Historic era, presumably because as metal becomes more readily available, less and less energy is expended to produce well-made, reusable stone points. Late Prehistoric and possibly Historic period occupation is also indicated by abundant bone-tempered ceramics. It is also possible that an early Historic period Indian occupation is also suggested by a single sherd of wheel-thrown, undecorated, coarse, reddish-paste, earthenware that was recovered from the surface.

End-scrappers. As noted, the medium and large end-scrappers from the Pampopa-Talon Crossings site

are morphologically, technologically, and functionally very similar to the "hide scrapers" recovered from the Buckhollow site on the Edwards Plateau (Johnson 1994). They are virtually identical to many of the end-scrappers from the Southwest School site in Bexar County (Warren and Tate 1994; Ray Smith, personal communication 1994). The STAA field school collection includes 42 end-scrappers with medium (2.5 to 4 cm) and large (> 4 cm) bits (Figures 6 and 7; Table 3). About 20 medium and large end-scrappers were also recovered during the 1989-1990 field season (Archaeological Research Laboratory 1991). The bit ends of these tools tend to exhibit smoothed, rounded/polished, and step-flaked edges. This use wear, together with the "stubby" nature of many specimens (i.e., presumably resharpened), indicates that these tools were well used. Heavy-duty use is suggested by the fragmentary nature of some of the bits, and by snap fractures and missing proximal ends on several of the end-scrappers. The abundance and well-used nature of these end-scrappers provides the best available evidence that hide-processing was an especially important activity. Their presence on

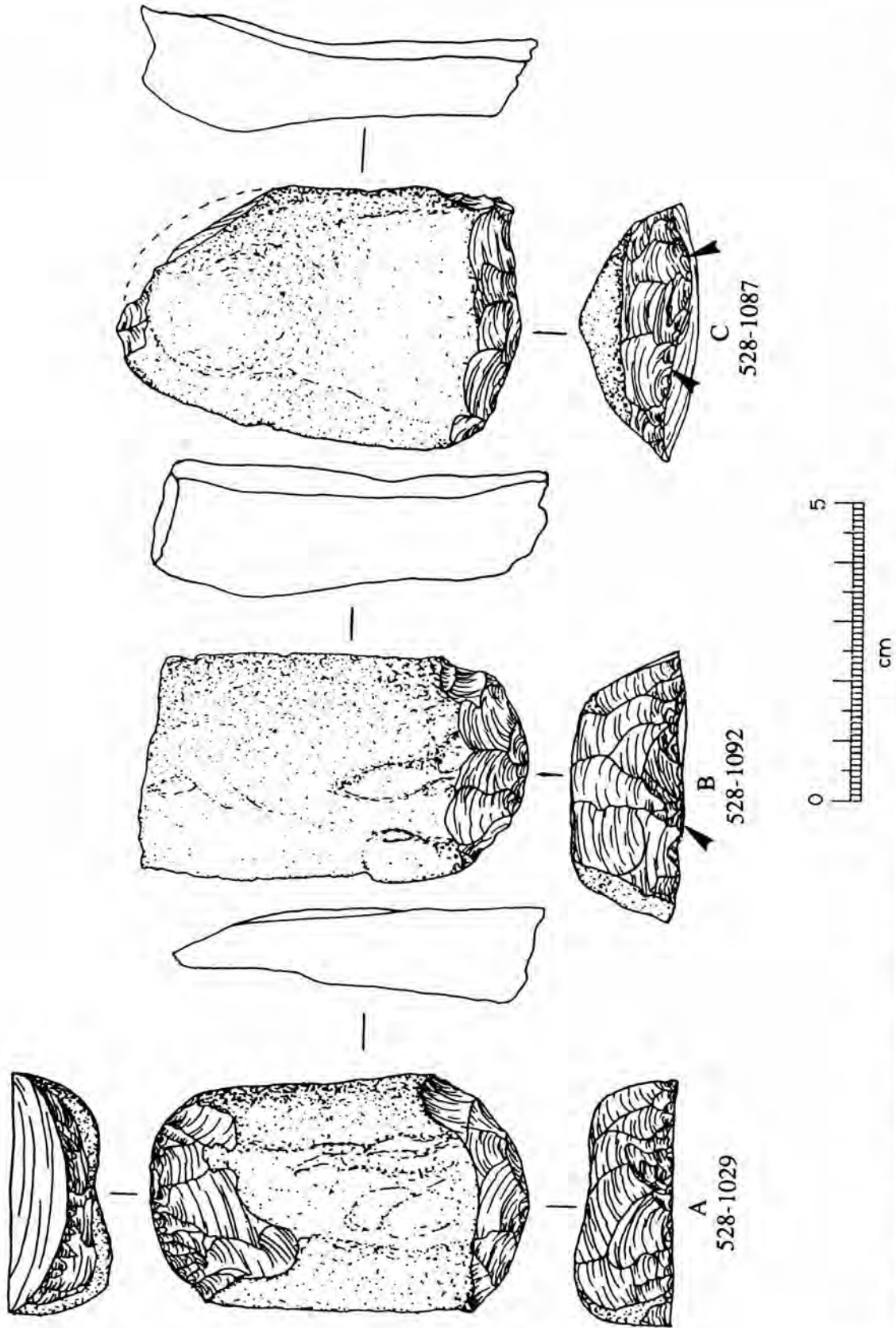


Figure 6. Medium-sized end-scrapers (2.5 to 4 cm bit width) from the Pamopota-Talon Crossings site. Arrows illustrate the location of use-wear photographs shown in Figure 10 (Figure 6 B = Figure 10 A; Figure 6 C = Figure 10 B and C).

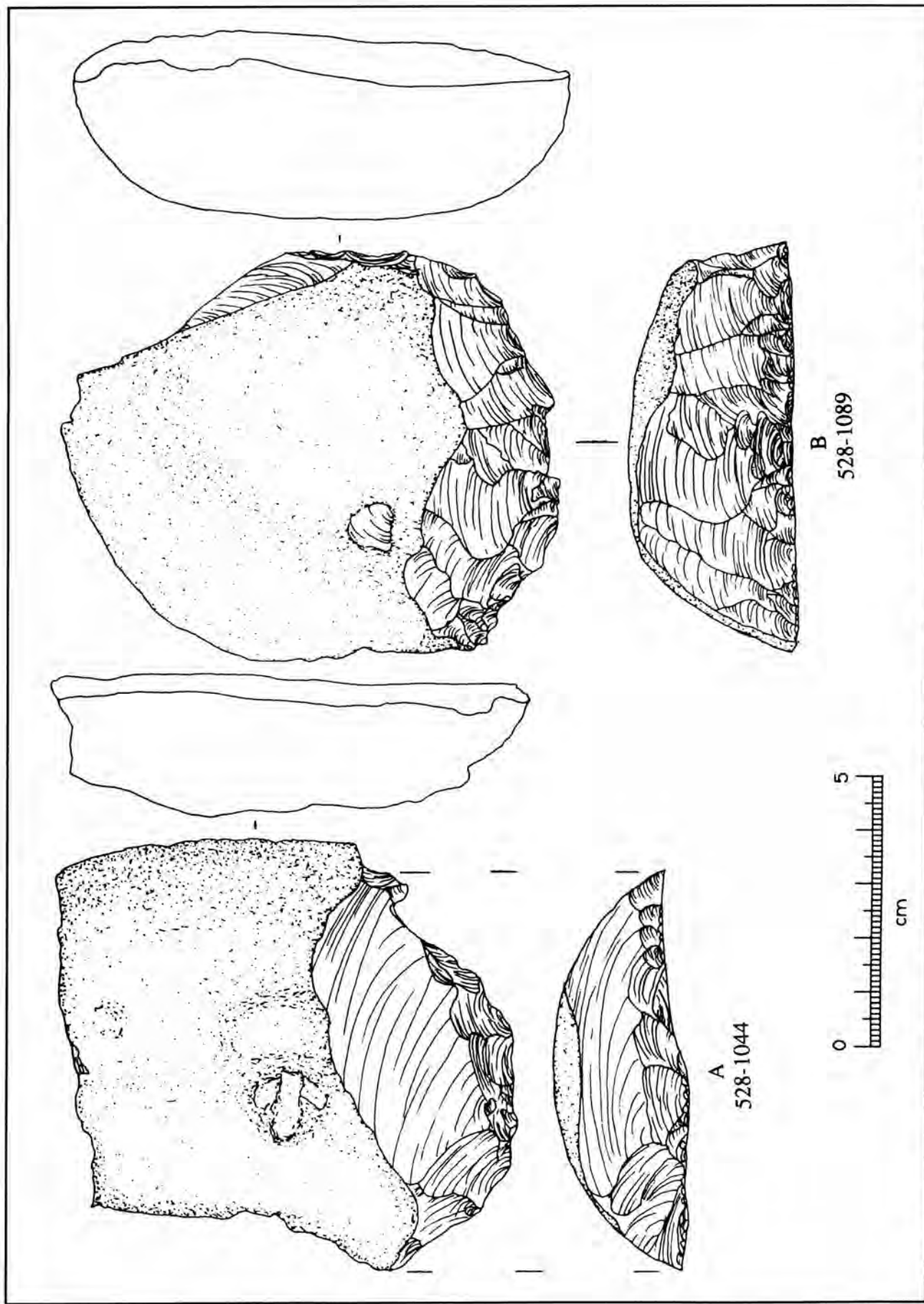


Figure 9. Slickstones from the Pampopa-Talon Crossings site: A, rod-shaped; B, tabular-shaped; C, roundish. Arrows illustrate the location of use-wear photographs shown in Figure 10 (Figure 9 A = Figure 10 G and H; Figure 9 B = Figure 10 I and J; Figure 9 C = Figure 10 K and L).

Table 3. List of Selected Temporally or Functionally Diagnostic Tools from the Pampopa-Talon Crossings Site.

Tool Type	Number
<i>Cobble Tools</i>	
Slickstones	
Rod-shaped	21
Tabular-shaped	12
Roundish	17
Possible slickstone blanks	13
Flaked cobble tools	7
TOTAL	70
<i>Thick (≥ 10 mm) end-scrapers</i>	
Large (> 40 mm bit width)	27
Medium (25 - 40 mm bit width)	13
Small (< 25 mm bit width)	2
TOTAL	42
<i>Thin (< 10 mm) end-scrapers</i>	
Large (> 40 mm bit width)	0
Medium (25 - 40 mm bit width)	4
Small (< 25 mm bit width)	0
TOTAL	4
<i>Projectile Points</i>	
Dart points	
Marcos	4
Pedernales	3
Ensor	2
Reworked blade fragment (lenticular in cross-section)	1
Untyped dart point	1
Subtotal	11
Arrow points	
Perdiz	9
Scallorn	3
Cuney	2
Guerrero	1
Very thin, stemmed, almost unifacial point	1
Untyped arrow point	7
Subtotal	23
Projectile point (n = 1)	
Untyped	1
Subtotal	1
TOTAL	35

the surface and in the near-surface deposits, as well as along the uppermost part of the terrace scarp, suggests that they were deposited primarily during Late Prehistoric and possibly Early Historic times.

Many Toyah horizon sites, including 41LK201 (Highley 1986) and the Hinojosa site (41JW8) (Black 1986a) yield mainly end-scrapers with medium (2.5 to 4 cm wide) and small-sized (< 2.5 cm wide) bits. Judging from a quick review of the reports on these and other sites, it also appears that most of the smaller end-scrapers are made on interior flakes and exhibit more extensive flaking along the lateral edges and proximal end, probably to facilitate hafting. In fact, the typical bison-oriented, Toyah horizon tool kit contains *small* end-scrapers believed to have been used in hide processing, as well as beveled-edge butchering knives and Perdiz or similar stemmed points (Hester 1989b:122). The relative abundance of well-used, large end-scrapers at the Pampopa-Talon Crossings site may well be an indication that the site functioned as a specialized hide-processing locality. Due to the paucity of faunal remains and to the poorly preserved quality of the bones that were recovered, we have little direct evidence for what kinds of hides may have been processed, but the large size of the end-scrapers is consistent with the idea that the hides were probably large and thick. Arguably, bison would be a prime candidate.

Slickstones. We noted numerous cylindrical cobble tools on the terrace surface and upper part of the slope during our initial reconnaissance of the site in September 1994 with Kay Hinds, Ray Smith, Mike Fulghum, and other STAA members. We designated these pecked, scratched, and polished artifacts from the Pampopa-Talon Crossings site as *slickstones*, following Abbott's (1881:139-148) definitions and descriptions that were brought to our attention by John Dockall, a Ph.D. graduate student and lithic technologist at Texas A&M University. Slickstones from the Pampopa-Talon Crossings site were invariably made from water-worn, microcrystalline limestone cobbles (i.e., "cherty" with a strong reaction to hydrochloric acid). They exhibited battered or pecked and sometimes sporadically flaked ends, some of which also appeared to be polished. In shape and location of heavy-duty use wear, these tools were reminiscent of stone pestles, but the polish wear seemed inconsistent with pounding and kneading actions typically associated with stone pestles.

Our inclination at the time was that the polish wear resulted from work on soft materials, possibly rubbing hides to soften the leather.

In his 1881 study of the "handiwork" by Indians of the northern Atlantic region of North America, Abbott noted that slickstones occur throughout the continent, as well as in England and Scandinavia. He argued that slickstones were used in rubbing leather to make it soft and pliable, noting that this process occurred after scrapers had been used to clean and thin the hide. The slickstones Abbott described were a variety of shapes and sizes (ca. 3 to 12 cm), and exhibited different kinds of wear, including: (1) "highly polished but otherwise unworked pebbles"; (2) "one can readily imagine that the exceeding smoothness is still due to their greasy condition when in constant use;" (3) "all showed traces of scratches, as fine as hair lines, which were possibly due to the grit that had doubtlessly adhered to the leather while in process of manufacture"; and (4) a few cylindrical specimens that "seem most admirably adapted for rubbing seams, and otherwise working leather in the course of its manufacture into clothing" (Abbott 1881:139-143). Abbott does not mention peck marks on any of the slickstones, but in his discussion of "hand-hammers" he notes:

The battered condition of the entire surface of some of them cannot readily be explained, as it is difficult to see how the sides of small cylindrical pebbles could have been used for pecking the surface of other stones; but our knowledge of the processes by which the Indian fashioned his stone implements does not always justify us in forming or rejecting conclusions on the subject [Abbott 1881: 424].

As noted earlier, Blackfeet women are reported to have used tools similar to those described herein as end-scrapers (replaced by metal tools in Historic times) and slickstones during the early stages of bison-hide processing. Presumably, hafted end-scrapers were used first on freshly stretched green hides by a woman who "knelt over the hide and hacked away the undesired matter with short, vigorous strokes of a sharp toothed implement" (Ewers 1958: 110). After the hide was cured and bleached, it was thinned by a woman who "stood on the hide and leaned over and chipped away the surface by moving her scraper, much as a skilled carpenter uses

a plane" (ibid.).

Rocks, apparently in their natural form and perhaps not unlike some of our slickstones, were also used in the tanning process. After a woman thoroughly rubbed a mixture of brains, fat, and liver into the cured and thinned hide, "she rubbed the inner surface with a stone, the heat of which distributed the oil through the hide" (Ewers 1958:110). Later, she "broke down the tissues and softened the skin by rubbing the surface vigorously with a rough stone" (ibid.). A scraping tool was generally used to de-hair bison hides destined to be garments or bedding, but if the skin was to be made into rawhide, "it was fleshed and scraped on the inner surface and the hair was knocked off with blows from a rock" (ibid.) Rawhide used to make ropes was softened by "rubbing the inner (meat) side with a rock" (ibid.). Clark Wissler also described this process:

In 1906, the writer observed a woman removing the hair from a rawhide with a rounded water-worn pebble... She struck hard glancing blows and at each stroke removed a small bunch of hair. In reality, the action was about the same as rubbing and notwithstanding the force of the impact the hide was not damaged, even the pigmented layer being intact [Wissler 1910:66].

During field school, we recovered 63 limestone pebbles and cobble tools that were water-worn and roundish, tabular, or rod shaped, ranging in maximum dimension from 3 to 17 cm (Table 3; Figures 8 and 9). In analyzing these tools, Steven Ahr noticed that while only a few had flake scars or heavily battered areas, almost all exhibited surficial scratches, some of which were macroscopically visible. Many were hair-line scratches, detectable only with aid of a 10- to 40-power microscope. Sporadic peckmarks, small (ca. 3 mm) indentations presumably created by impacts from another rock, were also common on all surfaces (i.e., ends, sides, and faces) of many of these tools, and they often co-occurred with the scratches and polished areas (Figures 8 and 9). Small patches of a dark-colored substance (residue?) were also found adhering to faces and edges of several specimens (Figure 10 I). Flakes have been detached from the end(s) of some of the rod-shaped specimens and from the side(s) of tabular pieces. Microscopic examination of the edges of the flake scars and the arrises reveal rounding and polish (Figure 10 D and

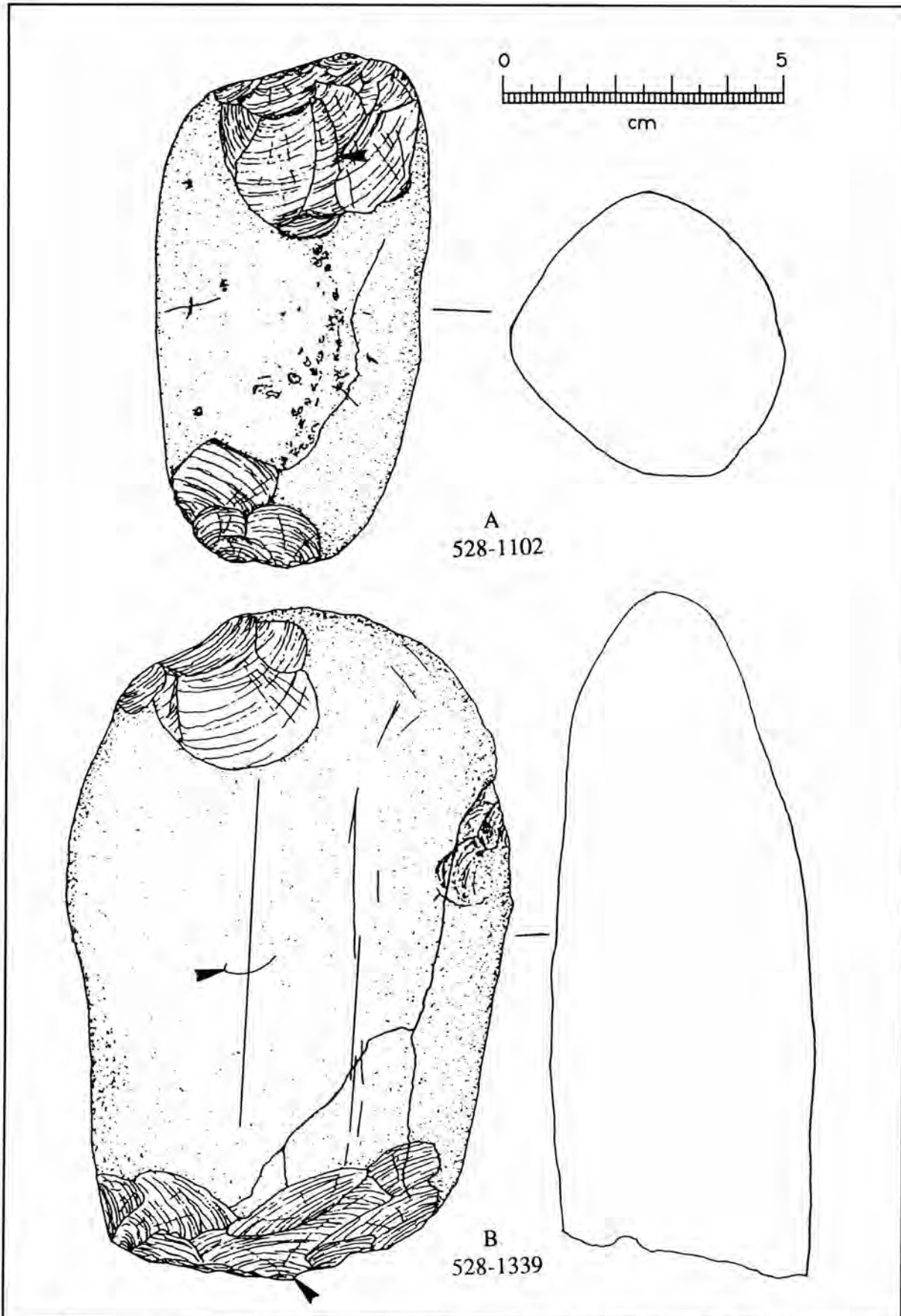


Figure 8. Slickstones from the Pampopa-Talon Crossings site: A, rod-shaped; B, tabular-shaped. Arrows illustrate the location of use-wear photographs shown in Figure 10 (Figure 8 A = Figure 10 D; Figure 8 B = Figure 10 E and F).

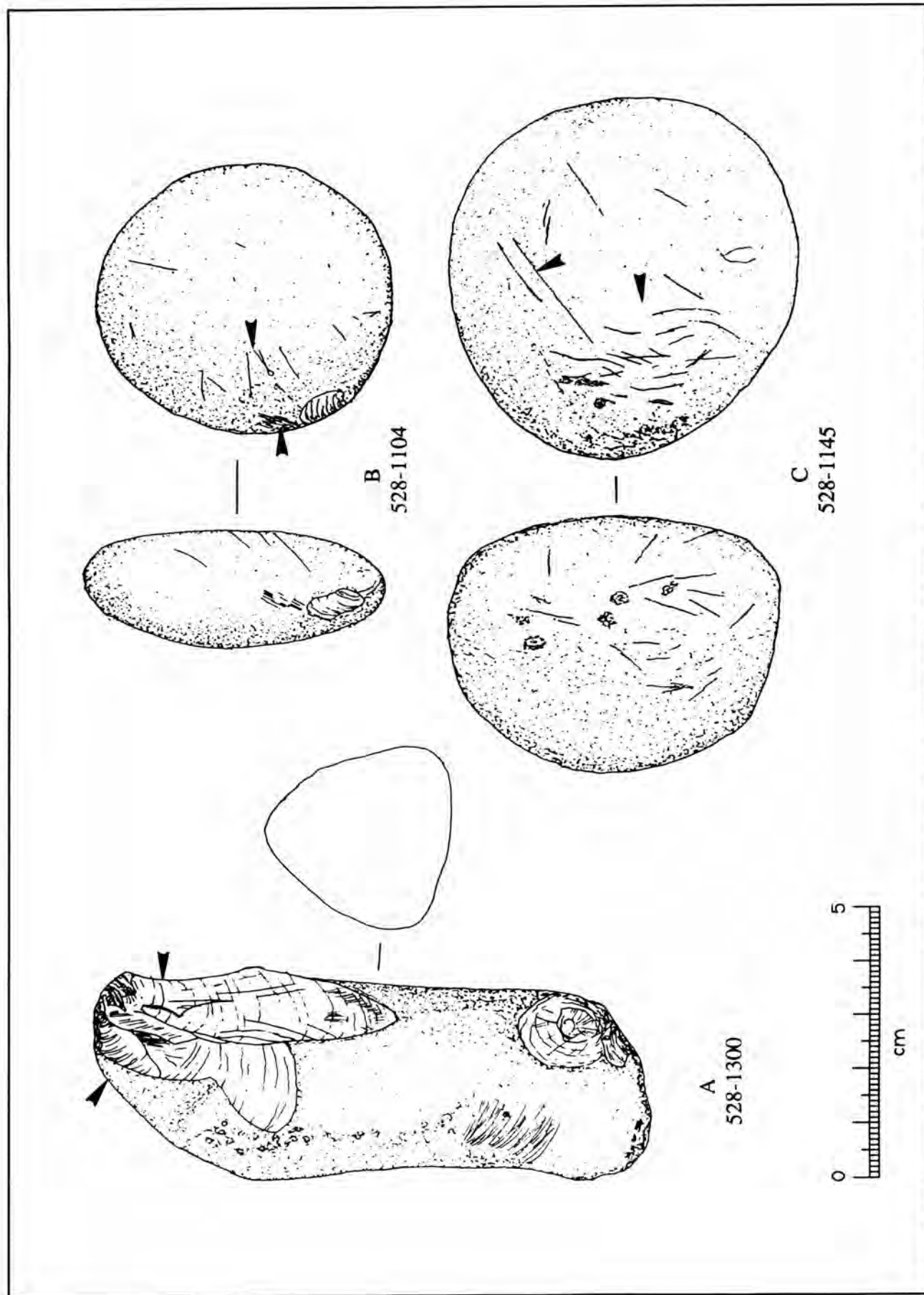


Figure 9. Slickstones from the Pamropa-Talon Crossings site: A, rod-shaped; B, tabular-shaped; C, roundish. Arrows illustrate the location of use-wear photographs shown in Figure 10 (Figure 9 A = Figure 10 G and H; Figure 9 B = Figure 10 I and J; Figure 9 C = Figure 10 K and L).



A (528-1092; Fig. 6B)



B (528-1087; Fig. 6C)



C (528-1087; Fig. 6C)



D (528-1102; Fig. 8A)



E (528-1339; Fig. 8B)



F (528-1339; Fig. 8B)



G (528-1300; Fig. 9A)



H (528-1300; Fig. 9A)



I (528-1104; Fig. 9B)



J (528-1104; Fig. 9B)



K (528-1145; Fig. 9C)



L (528-1145; Fig. 9C)

- A-B, polish and edge rounding on medium-sized end-scraper bits (25x);**
C, polish and edge rounding of step fractures on a medium-sized end-scraper bit (25x);
D, polish and edge rounding on peckmarks and along flake arris on one end of a battered/flaked rod-shaped slickstone (25x);
E, polish and edge rounding on flaked/battered end of a tabular slickstone (12x);
F, tabular slickstone with straight scratches (incised grooves?) (6x);
G, multiple scratch marks on end of rod-shaped slickstone (12x);
H, polish and arris rounding on battered/flaked end of a rod-shaped slickstone (12x);
I, tabular slickstone with possible residue transected by scratches (12x);
J, tabular slickstone with peckmarks and "scratch-tails" showing movement in opposite directions (6x);
K, deep, V-shaped scratches on roundish slickstone (6x);
L, fine scratches on roundish slickstone (6x).

Figures 6, 8, and 9 illustrate the photographed area(s) on each tool.

Figure 10. Photographs of use wear on stone tools, STAA 1994 Field School.

H) not unlike that seen on the end-scraper bits (Figure 10 A-C).

Limestone cobbles from Bonfire Shelter in Val Verde County with battered and scratched ends were classified as hammerstones (Dibble 1965:57, 65, 73), as were similar limestone cobble tools recovered from the Southwest School site (Warren and Tate 1994). These tools exhibited pecked and battered ends and faces. Some specimens from the Southwest School site had several flake scars and were believed to have functioned as cores as well as hammerstones. Three of the six hammerstones from that site also exhibited either deep, shallow, or narrow V-shaped grooves. It was suggested that the shallow and narrow grooves resulted from "biface edge smoothing," but no interpretation was offered for the deep grooves (Warren and Tate 1994:162-165). It is worth noting that the overall lithic assemblage from the Southwest School site is similar to that from the Pampopa-Talon Crossings site.

Several of the pecked, scratched, and polished limestone cobble tools from the Pampopa-Talon Crossings site were discolored (pinkish) and fragmentary, with rough surfaces on the broken faces. Had we not already recognized numerous limestone cobble tools with comparatively slight use wear, we probably would have simply classified these fragments as fire-cracked rock. In any case, these particular tool fragments appear to have functioned as fire-cracked rocks during the last stage of their use life. This kind of extended use life is also reported from sites along the Wilson River in Oregon where hammerstones are said to be the "same shape and type as those that were heated and used in cooking; probably many of them were used for both functions" (Sauter and Johnson 1974:82).

Several noncultural rocks of the same shape and material as the slickstones were collected from a modern Medina River gravel bar near 41BX528. They were analyzed in the same fashion as the slickstones from the Pampopa-Talon Crossings site. These exhibited hairline "scratch wear" similar to the slickstones from the site. Scratches on the noncultural specimens were typically shallow, very fine, tightly clustered, and parallel or unidirectional within a given set of scratches. Similar, probably natural hairline scratches are also present on slickstones from the site. However, specimens from the site have much deeper, wider, multidirectional scratches that are widely distributed on all faces of the rock. Initial

inspection of the limestone specimens from the site for scratches, peck marks, and polishing resulted in the identification of 63 slickstones. However, after comparison with the noncultural limestone specimens, 13 "slickstones" from the site were rejected as cultural slickstones because the scratches on these items could not be distinguished from those on natural rocks. Burrowing mussels, trampling by animals, and natural shifts in gravel (and sand) bars may cause the kinds of scratches observed on the natural slickstones. Nonetheless, it is clear that "natural" slickstones from the site were brought there as manuports. They may be slickstone blanks (Table 3).

It is primarily the presence of rounding and polish on flake scars, peck marks, and scratches on the otherwise unmodified surface areas which are deeper than those observed on the noncultural specimens that leads us to suggest that some of the limestone cobble tools from the Pampopa-Talon Crossings site were used in some type of hide processing. Had this kind of ostensibly soft-material wear not been present, we also would have been inclined to call these tools hammerstones. What seems likely is that the limestone cobble tools with soft-material wear and comparatively deep scratches near well-battered ends or edges were probably used as hammerstones at sometime during their use life. But, it seems unlikely that the smooth rounding and polish wear resulted from rocks impacting rocks. It may be, however, that some of the apparent rounding and polish wear actually resulted from chemical weathering of the raw material itself. As noted above, some of the hairline scratches probably resulted from noncultural processes.

While we cannot be certain that most, or any, of the slickstones from the Pampopa-Talon Crossings site were actually used in hide processing, the type of soft-material wear observed on these tools is consistent with what we believe should have resulted from rubbing and striking sediment-soiled (i.e., gritty or sandy) bison hides, and presumably other kinds of hides as well. Insofar as peck marks, battered ends, and scratches are also typical of hammerstone wear in general (Harry Shafer, personal communication 1995), it is likely that most of these slickstones served as hammerstones, perhaps even to manufacture and resharpen end-scrapers. It also seems possible that the well-battered areas, and perhaps the peck marks in general, resulted from efforts to

roughen the stream-worn surface and create areas on the tool that would be more effective in breaking down and softening the hide. Another possibility is that some of the faint scratch marks on the smaller tabular slickstones may have resulted from use of the tools as pottery smoothing stones; it does not seem likely, however, that the larger or rod-shaped slickstones would have been used in this manner (David Carlson, personal communication 1995). Fortunately, the hypothesized relationships among slickstones, end-scrapers, and hide processing are readily testable through experimental archaeology, residue analysis, use-wear analysis, and other studies of existing collections, as well as ethnohistorical research. More work is needed in order to distinguish natural from cultural wear in terms of weathering/rounding and scratch marks.

Pottery Fragments. A total of 176 aboriginal pot sherds was recovered from the site during the field school—93 from the surface and 83 from excavation units. Previous testing and surface collections yielded 95 sherds of aboriginal pottery (Archaeological Research Laboratory 1991). Based on our cursory analysis of a sample of sherds recovered during the field school, it appears that as a group, these specimens are very similar to the predominately bone-tempered sherds with varying amounts of sand temper (i.e., Leon Plain ware) which are typically found in association with Perdiz points in central and southern Texas and which are considered to be part of the Toyah horizon (Black 1986a, 1986b; Highley 1986; Johnson 1994). Many of the sherds, however, especially those with abundant bone-temper, would fit comfortably as Historic-period Goliad ware. The similarity between Goliad and Leon Plain wares has long been recognized; the classification of these sherds depends largely on whether they are from “mission-period” or “prehistoric” sites (Black 1986b; Schuetz 1969; Fox 1983).

Exterior surfaces on the aboriginal sherds from the Pampopa-Talon Crossings site range from very smooth to somewhat rough, and sherd thickness ranges from about 4 to 10 mm. Colors include yellowish-brown, brown, reddish-brown, red, and black, with all of these colors present on some of the larger sherds. Interior surfaces tend to be brown or black. The color of the clayey paste varied considerably from brown to gray to black, sometimes within a single sherd. Bone temper also varied in color,

from black to brown (unburned?) to white (partially calcined), suggesting that both partially burned and unburned bone was mixed into the paste. The amount and size of both bone and sand temper also varied greatly. A few sherds had considerable quantities of sand with very little bone temper, and most of that was pulverized (i.e., “powdery”) as opposed to highly fragmented (i.e., “blocky”).

We also examined a small sample of sherds from the Goliad Mission site (41GD1). It was quite clear that many of the sherds from the Pampopa-Talon Crossings site would be easily “lost” in the Goliad material, and visa versa, in terms of thickness, paste, temper, and surface treatment. In general, however, bone temper in sherds from Goliad Mission was both larger and more abundant, and more of the bone was brown and black in color. There also tended to be less sand temper compared to the sample from the Pampopa-Talon Crossings site. However, judging from the similarities between some sherds from the Pampopa-Talon Crossings site and Goliad Mission, it is entirely possible that some of the aboriginal pottery from the former site dates to the early Historic (i.e., Mission) period.

One sherd of an undecorated, pinkish-gray (surface and paste), sand-tempered, wheel-thrown, coarse earthenware was also recovered from the surface of the Pampopa-Talon Crossings site. This same type of earthenware is also common in the Goliad Mission ceramic assemblage, except that the Goliad specimens are glazed wares. While this type of ceramic was made during the 1700s, it probably continued to be made in the 1800s (Shawn Bonath Carlson, personal communication 1995). The green, lead-glazed sherd recovered from the Pampopa-Talon Crossings site during the 1989-1990 field work has not been identified to type, but its general appearance is consistent with generic wares from Mexico (Anne Fox, personal communication 1995). In short, the non-Indian Historic period pottery tells us little about details of the Historic-period use of the Pampopa-Talon Crossings site. Both of the above-described sherds may well be temporally related to the few recovered pieces of amber glass, whiteware, ammunition, or the cut nail that probably post-date 1850 and were left at the site by non-Indians. Alternatively, the Historic-aged ceramics may represent evidence for occupations by Indian people during the 1700s.

Faunal Remains. River mussel shells (N = 234) and fragments (N = 1,011) were especially common at the site, both on the surface and in the upper 30 cm of the terrace deposit. Bone was much less common, with only a few weathered pieces of large mammal bone (i.e., deer-sized) exposed along the edge of the terrace. A total of 190 bone fragments was recovered from the various excavations units, none of which could be identified to the species or family level. None of the recovered specimens was clearly large enough to be classified as an unidentified very-large mammal (i.e., bison or elk). Approximately 20 percent of the bone was classed as unidentified large mammal (i.e., deer and pronghorn size), with an additional 40 percent classed as unidentified large or medium (coyote- to raccoon-sized) mammal. Insofar as none of the unidentified recovered fragments were categorized as medium size mammal, it seems likely that many of the medium/large size fragments probably came from deer-sized mammals. Most of the remains in the unidentified small mammal category (i.e., mouse- to rabbit-sized, representing about 5% of the sample) are relatively unweathered and appear to be from modern rodents. None of the remains were assigned to the "border-line" small/medium category. About 10 percent of the sample was classed as indeterminate mammal bone. The remaining 25 percent of the remains were so fragmentary that they could not be placed in any mammal category; they were classified only as undetermined bone.

Faunal remains recovered from the Pampopa-Talon Crossings site provide little direct information regarding subsistence. It seems likely, however, that many of these remains are from deer, as is usually the case at sites in the lower Medina River valley. Given the presence of deer-sized bone at the site, some of which were fairly well preserved, it seems unlikely that the apparent absence of bison bone can be attributed entirely to poor preservation conditions. In other words, it does not appear that bison ever represented a significant component of the Late Prehistoric and early Historic faunal assemblage at the Pampopa-Talon Crossings site.

Preliminary Interpretations

Judging from recovered projectile points, the Pampopa-Talon Crossings site has been occupied at

least since the Middle Archaic period, or during the last 4,500 years or so. Dart points, however, were not found in the upper 30 cm of deposits excavated during field school. Given that all but one of the dart points was recovered from lower on the terrace slope than the arrow points and ceramics, there is probably ample stratigraphic separation between sediments containing Archaic materials and those holding Late Prehistoric/Historic-aged remains. Arrow points, especially the Cuney and Guerrero specimens, along with bone-tempered Indian ceramics and possibly the wheel-thrown Historic ceramics, suggest that the site was probably occupied during the Late Prehistoric and Historic periods.

At present, however, we do not have clear-cut archaeological or stratigraphic evidence for an Historic period Indian occupation(s). In part, this is because the Toyah horizon, with its Perdiz arrow points and bone-tempered pottery, lasted until the very end of the Prehistoric period, A.D. 1600-1650 (Black 1986a:250-257; Johnson 1994:256-258). Archaeologists do not, as yet, have tried and proven methods for recognizing stone tools used by Historic-period Indians. These tools often co-occur with many prehistoric stone artifacts, and many sites are largely lacking metal trade goods, glass beads, or other diagnostic Historic materials. Neither do Indian ceramics indicate for certain whether or not a site was occupied after A.D. 1650. Archaeologists also find it difficult to distinguish between Prehistoric and early Historic bone-tempered ceramics when they do not have other clear lines of evidence to determine whether they are dealing with a mission-period or precontact site (Fox 1983). In short, it is entirely possible that many of the arrow points and bone-tempered sherds from the Pampopa-Talon Crossings site were left there during the late 1600s and early 1700s, prior to substantial impacts from Spanish colonization of the region.

The apparent absence of beveled knives distinguishes the Pampopa-Talon Crossings site from most other ostensible Toyah period sites in south-central Texas and adjacent areas. Other knife-like tools (i.e., thin bifaces) were recovered, but most of these appear to be blanks or preforms with somewhat sinuous (i.e., unfinished) cutting edges. Also recovered were thick bifaces with very sinuous and battered edges that may have served as heavy-duty butchering tools. It is the comparative paucity of

faunal remains, however, that suggests to us that butchering activities are not especially well represented at the site. The relative abundance of large end-scrapers and putative slickstones, when seen in light of ethnographic evidence for use of similar tools, leads us to suggest that initial stages of hide processing, including de-fleshing, de-hairing, and softening, are unusually well-represented at the Pampopa-Talon Crossings site.

In the absence of identified bison or bison-sized remains, we can only speculate that bison hides were processed at the site. Deer-sized bone were recovered; in general, deer are the most common faunal remains at most archaeological sites in the region (Black 1989a, 1989b). Therefore, it is entirely possible that deer were the focus of hide-processing activities at the Pampopa-Talon Crossings site. However, based on the historically documented abundance of bison during the late 1600s and 1700s, as well as the documentation of bison bone from archaeological assemblages at other sites containing Perdiz points and bone-tempered ceramics, bison hides may well have been processed at 41BX528. The fact that large end-scrapers are unusually common at the site may also be an indication that hide-processing activities focused on bison as opposed to deer.

41BX527: THE HEERMANN RANCH SITE

The Heermann Ranch site (41BX527) in Bexar County is situated near the Medina River approximately 20 km south of San Antonio, Texas (Figure 1). It lies on a knoll-shaped terrace remnant surrounded by a low flood terrace approximately 80 meters from site 41BX528.

Previous investigations at 41BX527 to assess its historical significance were carried out by Southern Methodist University (SMU) (Green et al. 1992) and by the Center for Archaeological Research/University of Texas at San Antonio (CAR/UTSA) (McGraw and Hinds 1987). Excavations by CAR/UTSA primarily focused on the two stone buildings; they documented a keystone inscribed with the date "1886." This date corresponds with occupation of the residence by Theodore Heermann. A more recent wooden structure, along with a section of stone-lined driveway, were also examined. Investigators noted the unique architectural style of the stone buildings. Based on this distinctive style and the potential to yield impor-

tant cultural data relevant to the area, the site was recommended for inclusion to the National Register of Historic Places (McGraw and Hinds 1987:166).

During April 1990, SMU conducted limited test excavations and mapping of all areas of the site. Of interest here is the work conducted by SMU in what they designated as Area A (Figure 11), including the stone barn, stone ruin, frame house, and gravel pit, where 54 units and two backhoe trenches were excavated. An architectural study was also conducted by Killis Almond and Associates in August 1989. Recommendations for future research were specifically directed at the area of the barn where a buried household midden was encountered. The midden was considered to be especially significant in terms of determining as much as possible about the lifeway of the Heermann family. Recommendations were also made to further investigate the barn itself, along with photographic documentation of the stone ruin (Green et al. 1992:6.19).

The 1994 STAA field school included test excavations in the area behind the barn, as recommended in previous SMU investigations. The primary goal of these excavations was to recover evidence represented in the household midden pertaining to the Heermann family occupation of the site in the mid-nineteenth century. These investigations were also aimed at defining the original occupational horizon associated with the midden, and to assess the degree of site disturbance. Remains of a nearby mid-nineteenth century residential structure have not yet been identified, but it is possible that they were razed ca. 1885 in order to provide room for the present-day rock barn which is situated about 10 meters upslope from the household midden. A brief descriptive account of the work carried out by the field school participants and a description of artifacts recovered from the site, as well as preliminary interpretations, are provided below.

Field Methods

Field work was supervised by Anne Fox. Using a transit system, Richard Kinz and several members of the field crew established a 10 x 20-meter grid parallel to and 9 meters northwest of the present-day barn. This grid consisted of eight 5 x 5-meter block areas. Axes of 2.5 meter intervals were labeled 1 through 5 from south to north, and A through I from west to east. All shovel tests and excavations were

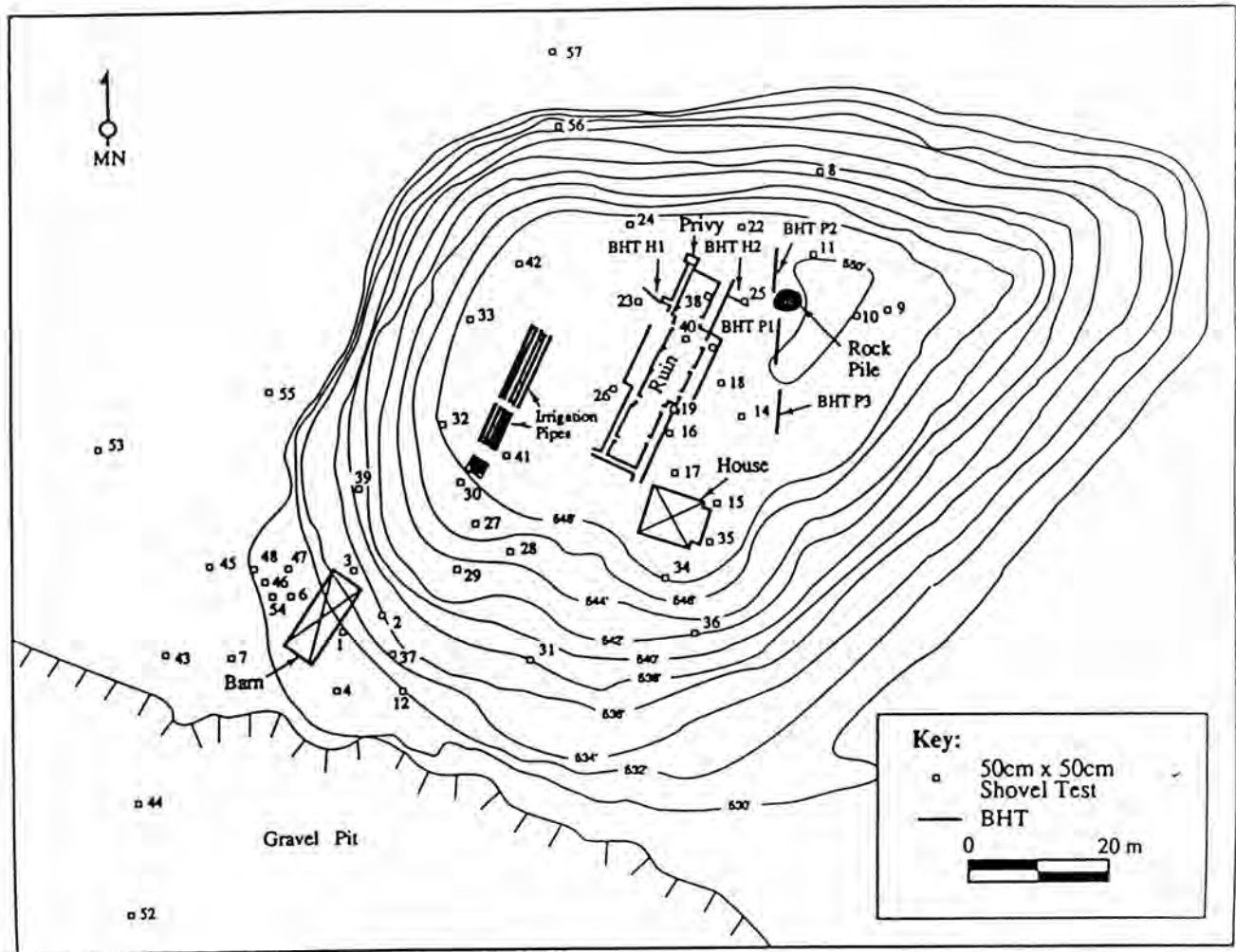


Figure 11. Plan map of the Heermann Ranch site; area A as designated during SMU investigations (Green et al. 1992:Figure 6.4).

carried out in reference to this grid. A map of test unit and shovel test locations was created by Kinz in the field with the transit system; this data was later computerized (Figure 12).

Shovel Testing

Fifteen shovel tests were dug at the site to determine the midden's extent (Figure 12), each measuring 40 cm². Testing at the eastern end of the site uncovered the household midden approximately 10 cm below surface. The midden deposit, with a depth of ca. 10 cm, contained ash, charcoal, ceramic sherds, nails, bone, and glass. Shovel testing was extended to the north and south to further explore the boundaries of the midden.

Test Excavations

Based on recovery of large quantities of artifacts during shovel testing, excavations were concentrated at the eastern end of the grid. Four 1 x 1-meter test pits were dug in arbitrary 10-cm levels and were designated as Units 79, 80, 81, and 84 (Figure 12). A local datum was established for each 1 x 1-meter test unit from which each level floor was measured. All excavated material was screened through 1/4-inch hardware cloth. A single constant-volume (1 liter) fine-screen sample was taken from each unit for laboratory analysis. Each unit is described below.

Unit 79. Two 10-cm levels were completely excavated, along with the southeastern quarter of the third level. The fine-screen sample was taken from the southwest corner of level 1. In the first and

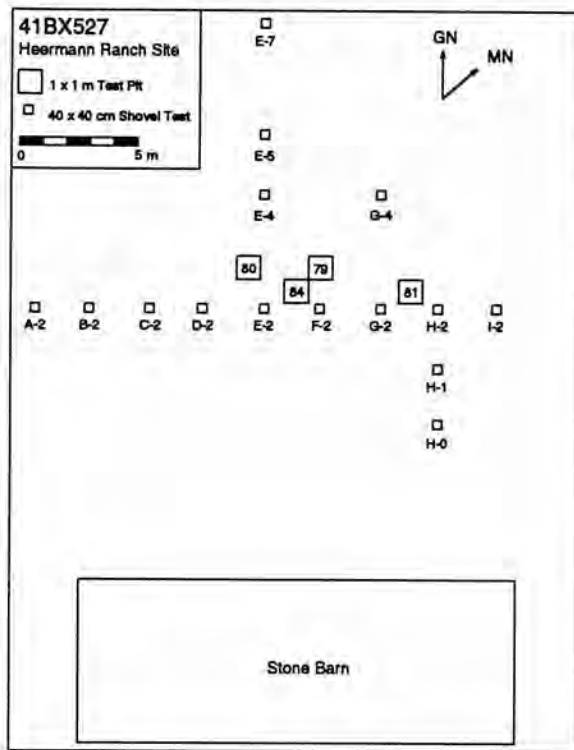


Figure 12. Planview map of stone barn and excavation units at the Heermann Ranch site.

second soil zones, intermittent gravel and charcoal stains were noted. These stains are absent in level 3 at 32 cm below surface. On the eastern wall, a single ceramic sherd was found resting in a vertical position, suggesting that some disturbance has occurred.

Unit 80. Two levels were excavated in this unit and one fine-screen sample was taken from the northwest corner of level 2. Both levels contained high concentrations of rusted metal, extending from the southwest corner throughout the unit. The metal appears to have been part of a single item that has subsequently deteriorated beyond recognition. A single arrow point was found 4 cm below surface in the northeast corner above the metal, indicating that some mixing of deposits has occurred. Although an abundance of metal scraps were noted at the top of

level 3, excavation was terminated after the upper two levels were exposed.

Unit 81. Three levels were completely excavated, along with the northwestern quarter of level 4. No cultural materials were found in the fourth level and excavation was terminated. One fine-screen sample was taken from the southwestern corner of level 2. A highly combusted ash lens was encountered approximately 11 cm below surface. Large concentrations of bone, ceramics, glass, and metal were uncovered in this lens. In addition, small bits of charcoal extended from the surface to a depth of 26 cm, and a single biface was recovered from the second level of the north wall. A gravel lens was encountered 52 cm below surface.

Unit 84. Two levels and the southwestern quarter of the third level were excavated in this unit. One fine-screen sample was taken from the northeastern corner of level 2. Bone, ceramics, glass, and metal were recovered, as well as a single Edwards point in level 2. Charcoal was present to a depth of 31 cm below surface.

Descriptive Results

A total of 2,227 Historic and 34 prehistoric artifacts was recovered from shovel testing and excavation of 41BX527 (Tables 4 and 5, respectively). A brief description of each artifact type is presented below.

Ceramics. In total, 121 ceramic sherds were recovered during archaeological excavations at units 79, 80, 81, and 84 (Table 6). Shawn Bonath Carlson assisted in identification of ceramic types in the laboratory, while identification of some nineteenth century Majolica ware and various Mexican wares was made by Anne Fox in the field. Several sherds were found to predate 1860. Although most of the early ceramic types recovered from the site continued to be manufactured into the mid-nineteenth century, the presence of Tonalá Polychrome, with an approximate manufacturing date of 1780 to 1830 (Gerald 1968: 54), clearly shows that pre-1850 material is present at the site.

Glass. Glass fragments recovered from excavations in the four previously-identified units totalled 203 (Table 7). Large amounts of curvilinear glass body fragments were also recovered, including pieces

Table 4. Historic Artifacts and Other Materials Recovered from the Heermann Ranch Site.

Artifact Type	Number
<i>Faunal and floral remains</i>	
Rabdotus	2
Mussel (near-complete with umbo)	19
Mussel fragments	29.8 g
Bone	376
Fish scale	1
Shell button	2
Other faunal remains	8
Total	408
<i>Ceramics</i>	
Earthenware	53
Whiteware	144
Stoneware	22
Semi-porcelain	12
Ceramic brick	1
Total	232
<i>Glass</i>	
Pressed	2
Neck	5
Shoulder	1
Base	1
Molded letters, numbers	6
Curved fragments	217
Buttons	1
Flat glass	121
Other	1
Total	355
<i>Metal</i>	
Agricultural hardware cast	12
Architectural hardware cast	2
Wire	442
Nails - cut	123
Nails - wire	88
Culinary/ gustatory	124
Household	1
Ammunition	6
Other	25
Indeterminate	370
Total	1,193
<i>Miscellaneous unaltered pebbles</i>	30
<i>Other materials</i>	9
TOTAL	2,227

of amber (N = 12), aqua (N = 22), clear (N = 56), green (N = 11), and lavender (N = 9) glass. A single glass button was recovered, along with 77 fragments of flat window glass. Using a predictive dating model (Moir 1987:73-81) based on average

Table 5. Prehistoric Artifacts Recovered from the Heermann Ranch Site.

Artifact Type	Number
Lithic debitage	15
Modified thick flake	1
Thin biface	1
Arrow point	2
Slickstone cobble tool	3
Fire-cracked rock	7
Burned matrix	5
Total	34

glass thickness, a mean date was calculated for the window glass remains (Table 8). Several fragments were found to predate 1850 (Shawn Carlson, personal communication 1995). It should be noted that no flat glass dates from level 1 overlap with those from level 3; the latest date in level 3 is 1860, while the earliest date in level 1 is 1860. Flat glass from level 2 represents the entire date range.

Metal. A total of 583 metal artifacts were recovered from the excavation units (Table 9). Artifacts related to food consumption were labeled as culinary/gustatory. One notable artifact from level 2 of Unit 80 is a kettle, represented by 14 rusted fragments. Non-rusted surface areas reveal a grayish exterior typically associated with granite ware (Vogelzang and Welch 1986). A gear of some sort was recovered from the level 2 of unit 79. Also, nine artifacts were recovered that appear to be related to agriculture; one of these is an iron cylinder found in level 2 of Unit 79. In addition, 148 pieces of wire, 144 nails, and five ammunition cartridges were recovered. Thirteen pieces of metal could not be identified, and another 188 pieces of highly corroded and unrecognizable metal fragments were described as "metal indeterminate." Of the 144 nails, 82 were cut nails and 62 were wire nails. There does not appear to be any clear distinction in the distribution of these two nail types by level, and the presence of

Table 6. Ceramic Artifacts Recovered from the Heermann Ranch Site.

Ceramic Type	Level 1	Level 2	Level 3	Manufacture Date Range	Reference
Red-slipped/ smoothed earthenware	1	6	1	1750-1850	Gerald (1968:54)
Red-slipped/ burnished earthenware	1	8	0	1750-1850	Gerald (1968:54)
Tonalá Polychrome earthenware	0	1	0	1780-1830	Gerald (1968:54)
Guadalajara Polychrome earthenware	0	5	0	1650-1810	Charlton & Katz (1979:46)
Whiteware, hand-painted	0	3	0	1830-1865	Price (1979:31)
Whiteware, transferprinted	0	2	0	1830-1865	Price (1979:31)
Majolica, rust-on-white	0	0	1	1800-1900	Seifert (1977:228)
Whiteware, annular	0	2	3	1830-1875	Price (1979:31)
Whiteware, undecorated	6	50	8	1820-1900	Price (1979:31)
Rockingham ware	0	2	0	1825-1900	Majewski & O'Brien (1984:45)
Ginger beer bottle	1	2	0	1860-1890	Greer (1981:197)
Stoneware with salt-glazed exterior, Albany-slipped interior	1	4	0	1850-1900	Wilson (1981:7-11)
Stoneware with salt-glazed exterior, possible southern-alkaline int.	0	1	0	1820-1900	Greer (1981:202-210)
Galera Polychrome earthenw'r	0	4	0	1780-Present	Gerald (1968:53)
Southern alkaline-glaze earthenware	1	1	0	1820-1900	Greer (1981:202-210)
Stoneware with Bristol- glazed exterior, Albany- slipped interior	0	1	0	1800-1920	Greer (1981:211-212)
Semi-porcelain, gilded	0	1	0	1840+	Ketchum (1983:12-13); Lehner (1980:9)
Semi-porcelain, gild/painted	0	1	0	1840+	Ketchum (1983:12-13); Lehner (1980:9)
Stoneware w/ Albany-slipped interior and exterior	1	1	0	1825-1920	Greer (1981:194-202)
Stoneware with Bristol-glazed interior and exterior	0	1	0	1920+	Greer (1981:210-213)
Total	12	96	13		

Table 7. Glass Artifacts Recovered from the Heermann Ranch Site.

Glass Type	Level 1	Level 2	Level 3	Total
<i>Glass Bottles/Jars</i>				
Pressed	1	0	0	1
Neck	0	1	0	1
Shoulder	0	0	0	0
Base	0	1	0	1
Molded letters, numbers	1	0	0	1
<i>Curved Body Fragments</i>				
Amber	6	6	0	12
Aqua	8	14	0	22
Blue/cobalt	0	1	0	1
Clear	31	24	1	56
Green	2	2	0	4
Light olive	6	5	0	11
Dark olive	0	1	1	2
Lavender	2	6	1	9
White/milk	1	3	0	4
<i>Glass button</i>	0	1	0	1
<i>Flat glass</i>	20	33	24	77
Total	78	98	27	203

Table 8. Flat Window Glass From the Heermann Ranch Site.

Date (thickness)	Level 1	Level 2	Level 3	Total
Pre-1810	0	7	0	7
1810 (1.16 mm)	0	0	1	1
1820 (1.27 mm)	0	4	1	5
1830 (1.39 mm)	0	5	0	5
1840 (1.51 mm)	0	5	1	6
1850 (1.63 mm)	0	3	0	3
1860 (1.75 mm)	1	3	0	4
1870 (1.87 mm)	7	5	0	12
1880 (1.99 mm)	1	1	0	2
1890 (2.11 mm)	0	1	0	1
1900 (2.22 mm)	1	4	0	5
1910 (2.34 mm)	2	1	0	3
Post-1910	7	9	0	16
Total	19	48	3	70

Table 9. Metal Artifacts Recovered from the Heermann Ranch Site.

Metal Type	Level 1	Level 2	Level 3	Total
Agricultural hardware cast	0	9	0	9
Architectural hardware cast	0	1	0	1
Wire	92	53	3	148
Nails - cut	28	47	7	82
Nails - wire	26	29	7	62
Culinary/gustatory	0	31	43	74
Household	0	1	0	1
Ammunition	0	4	1	5
Other	5	8	0	13
Indeterminate	134	50	4	188
Total	285	233	65	583

more cut nails suggests a pre-1900 deposition (Shawn Bonath Carlson, personal communication 1995).

Faunal/Floral Remains. Excavations at 41BX527 yielded a total of 376 bone fragments, including teeth (Table 4). Most of these fragments were only identifiable in terms of relative size, as designated by Shaffer and Baker (1992). These sizes include: very large (elk- or bison-sized); large (deer- pronghorn- or bighorn-sized); medium (canid- or caprine-sized); and small (cotton-tail rabbit-sized to 100 gm) (Shaffer and Baker 1992:63). Ten bones were identified as representing a very-large mammal, most likely a cow or horse. Fifty-eight bones were identified as representing a large to very-large mammal, many of which exhibited spiral fractures and cut marks. Medium- to large-sized bones totaled 125, with some exhibiting evidence of burning and spiral fractures. Small- to medium-sized bones numbered 162, some burned, and small-mammal bones totaled 14. Identified bones include a variety of animals, such as cow (*Bos* sp.), pig (*Sus* sp.), raccoon (*Procyon lotor*), softshell turtle (*Trionyx* sp.), rabbit (Leporidae), rodents (Rodentia), and snake (Serpentes). Nineteen mussel-shell umbos, two shell buttons, and one ganoid scale from gar (*Lepisosteus* sp.) were also recovered.

The only recovered floral remains from 41BX527 are one root, one nut shell, and six pieces of wood.

Prehistoric Artifacts. Thirty-four prehistoric artifacts were recovered from 41BX527 (Table 5), including 15 pieces of lithic debitage, none of which was found below level 2. A single, modified thin

flake was recovered from level 1 of Unit 84. One thin biface was recovered from the second level of the north sidewall in Unit 81 while the soil profile was being drawn. Two arrow points were also recovered. One of these is an Edwards point from level 2 of Unit 84; it consists of only the distal end. A Perdiz point with a broken basal stem was recovered from level 1 of Unit 80.

Three cobble tools identified as slickstones were recovered during shovel testing. Two of these were from shovel test C-2 and one was from shovel test E-4. All three exhibit the heavy cutmarks or striations identical to certain cobble tools recovered from the Pampopa-Talon Crossings site that are interpreted as representing hide-processing activities. The cobble tool from shovel test E-4 is severely charred, while the remaining two from test C-2 are small in comparison to other slickstones recovered from 41BX528. A total of seven fire-cracked rocks (FCR) were recovered. Three FCR were from Unit 79 (level 2), two from Unit 84 (level 2), and the remaining two were from shovel test B-2. Site testing in 1990 by archaeologists from SMU also recovered 85 prehistoric artifacts, including lithics, fire-cracked rock, and mussel shells (Green et al. 1992:6.17). The presence of prehistoric artifacts at this site, especially slickstones, suggests that an extension of the original site boundaries of 41BX528 should be considered, or that the prehistoric component at 41BX527 should be formally incorporated into the site-type description.

Preliminary Interpretations

Field school excavations at the Heermann Ranch site confirmed the presence of a household midden which covered a large area behind the rock barn built in 1886. This midden deposit contained materials dating from the early-nineteenth to mid-twentieth centuries. It is apparent that some mixing of these midden deposits has occurred; artifacts from level 2 (10 to 20 cm below surface) represent the entire time span of artifacts from other levels, ranging from the early 1800s to the mid-twentieth century. However, diagnostic ceramics and dates determined from flat window glass fragments suggest that at least some temporal continuity exists between levels. The recovery of early-nineteenth century flat window glass and ceramics, especially the Tonalá Polychrome which was manufactured between 1780 and 1830, suggests the possible presence of a pre-1850 occupation.

Identification of living descendants of the original Heermann occupants of the site and the discovery of account books, journals and other personal papers belonging to these earliest occupants (see Highley, this issue), along with the presence of artifacts predating 1850, all contribute to the site's archaeological and historical significance. Confirmation of the mid-nineteenth century household midden supports the conclusion that remains of a residential structure should be nearby. Additional field work may reveal its location, and perhaps evidence for a pre-1850 occupation as well.

CONCLUDING COMMENTS

The surface and near-surface archaeological deposits at the Pampopa-Talon Crossings site (41BX528) are especially significant and merit further study because of their potential to yield new and important information about land use during the Late Prehistoric and possibly the early Historic periods. The site's location between two river crossings within a well-used travel corridor raises the possibility that it may have been an important place for seasonal population aggregation and the distribution of local resources, including bison and deer hides. It is primarily the abundance of end-scrapers and slickstones that lead us to suggest that hide-processing activities were especially important.

To move beyond speculation and suggestions about site function, we need to complete the descriptive, comparative, and use-wear analyses of all stone tools

that are arguably associated with Late Prehistoric to Historic occupations of the site. Based on results of our preliminary analysis, we believe that materials from the surface and near-surface deposits on the terrace top were deposited during the last 1,500 years or so. We know that Perdiz arrow points, bone-tempered pottery, medium and large end-scrapers, as well as slickstones, co-occur in the uppermost sediments at the site. However, we cannot yet say whether or not other arrow or dart points are also associated with this assemblage. In other words, the available data clearly indicate the presence of hide-processing, Late-Prehistoric occupations, but they only suggest the possibility of early Historic, hide-processing occupations. Because the field school excavation did not penetrate Archaic-aged deposits, we do not yet have reliable information on the association of temporally diagnostic dart points and the putative hide-processing assemblage.

Residue analyses and experimental use-wear studies are needed to assess the hypothesis that end-scrapers and slickstones are indicative of hide processing. We also need to be able to distinguish between prehistoric and Historic Indian ceramics. Toward this end, descriptive and comparative analyses should be undertaken. Analysis of possible food residue on the sherds may shed light on the age of ceramics, especially if traces of corn or European foods are identified. It may also be possible to obtain radiocarbon ages from food residue or perhaps from the bone temper within the sherds.

Another important result of field school was the knowledge we gained about the potential for intact archaeological deposits within the pecan bottoms below the Pampopa-Talon Crossings site. Backhoe trenches revealed what appears to be well-preserved and stratigraphically-distinct occupation surfaces; chipped stone, one slickstone, mussel shells, and fire-cracked rock were buried 30 cm below the upper boundary, a paleosol. We do not have radiocarbon ages on these archaeological materials, but judging from other work in the area, they probably date to the Late Prehistoric period. In any case, other portions of the pecan bottoms are lower in elevation, and they may well contain archaeological deposits that date to the early Historic period. Therefore, the potential for isolating both discrete prehistoric and Historic Indian occupations is especially good in the pecan bottoms because the rates of sediment deposition would have been much higher there than on the terrace top where the Pampopa-Talon Crossings site is located.

The field school also contributed useful information about the Heermann Ranch site (41BX527). Importantly, the presence of a mid-nineteenth century household midden behind the 1886 rock barn was confirmed. In turn, this suggests the presence of a mid-nineteenth century residential structure somewhere in the immediate vicinity, perhaps where the barn is now located. Recovery of several pieces of diagnostic ceramics and thin window glass from the late 1700s and early 1800s raises the possibility that there is a pre-Heermann family occupation (i.e., pre-1850s) at the site. Confirmation of the putative structure and early occupation necessarily awaits further field work. Interpretation of the results of any archaeological studies will be facilitated considerably, now that living descendants of the Heermann family have been identified and it is known that they have retained diaries and other records about the ranch site from the mid 1800s.

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THE SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION

The Southern Texas Archaeological Association brings together persons interested in the prehistory of south-central and southern Texas. The organization has several major objectives: To further communication among avocational and professional archaeologists working in the region; To develop a coordinated program of site survey and site documentation; To preserve the archaeological record of the region through a concerted effort to reach all persons interested in the prehistory of the region; To initiate problem-oriented research activities which will help us to better understand the prehistoric inhabitants of this area; To conduct emergency surveys or salvage archaeology where it is necessary because of imminent site destruction; To publish a quarterly journal, newsletters, and special publications to meet the needs of the membership; To assist those desiring to learn proper archaeological field and laboratory techniques; and To develop a library for members' use of all the published material dealing with southern Texas.

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