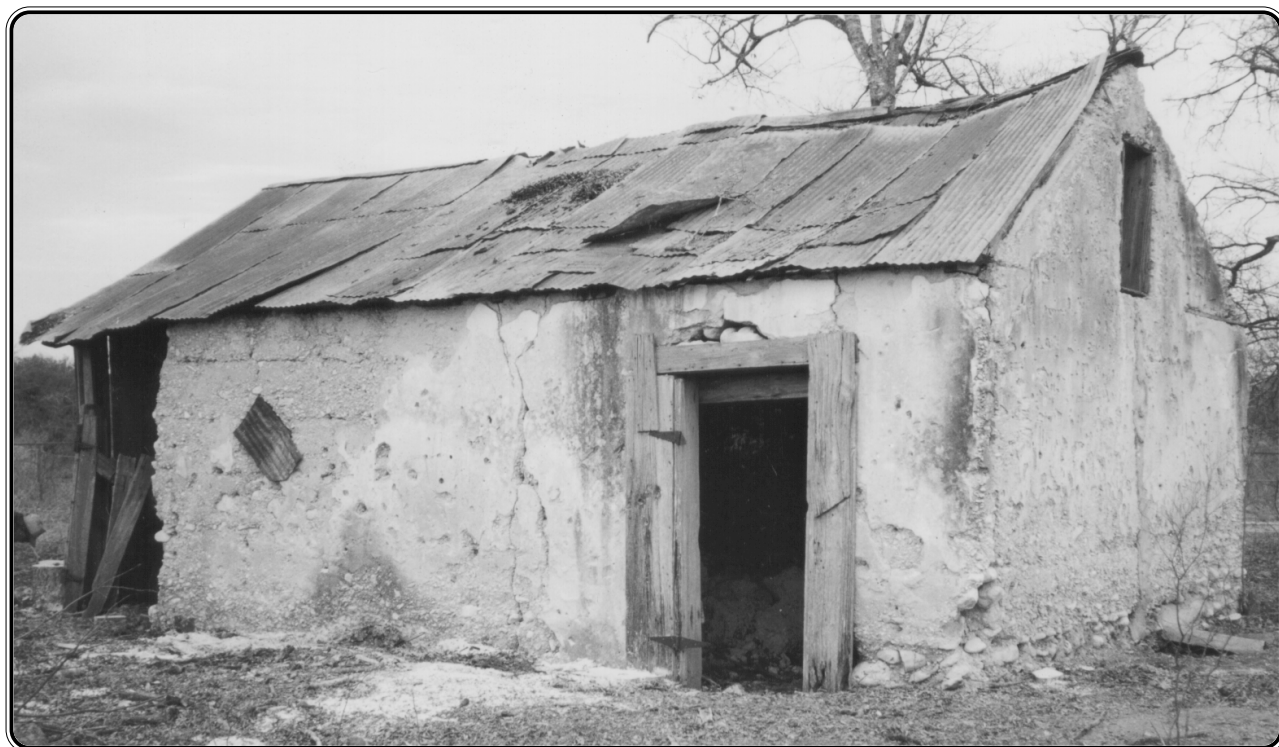


Archaeological Testing at the Selma Stagecoach Stop and Post Office (41BX1409), Bexar County, Texas



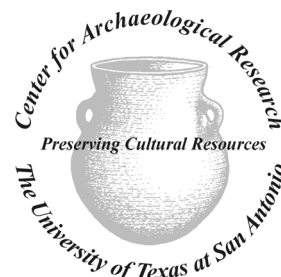
by

David L. Nickels and José E. Zapata

with contributions by

Donna D. Edmondson, Anne A. Fox, Raymond P. Mauldin,
Barbara A. Meissner, and Rick C. Robinson

Center for Archaeological Research
The University of Texas at San Antonio
Archaeological Survey Report, No. 307
2005



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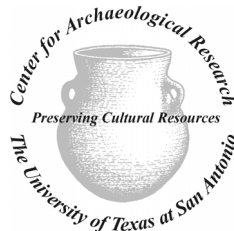
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with contributions by
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Texas Antiquities Permit No. 2395

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Abstract:

The Center for Archaeological Research (CAR) of The University of Texas at San Antonio contracted with the City of Selma, Texas—under Texas Antiquities Committee Permit No. 2395—for the purpose of conducting limited shovel testing and test excavations at the Selma Stagecoach Stop/Post Office. The building is to be restored to serve as one element of a planned historic park. Shovel testing was conducted in May 2000 on a 8,250 square foot area (766.4 m²) surrounding the stagecoach stop structure. The purpose of the shovel tests was to assess the presence of intact archaeological deposits below the surface. Thirty-nine shovel tests were excavated around the structure. The results of the shovel testing indicated that the elevated areas along the west and south elevations of the structure are relatively undisturbed.

Subsequently, in October 2000, test excavations were carried out along the exterior and interior of the structure. Four units were excavated, three outside and one within the structure. These investigations resulted in the recovery of nineteenth- and twentieth-century cultural material and the documentation of architectural features. It is recommended that detailed and comprehensive archival research be conducted to compile historical and perhaps architectural details regarding the stagecoach stop/post office. In addition, it is recommended that archaeological investigations be conducted in the area of the presumed location of the north wall of the structure to pinpoint its location. Finally, it is recommended that archaeological monitoring be conducted as subsurface impacts are carried out away from the structure to identify and document any features and facilities that may have been associated with the stagecoach stop but may have been situated outside of the fenced area immediately near the structure.

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Among the many people we need to acknowledge, no one stands out more than the members of the Selma Historical Preservation Committee who, in a spirit of community, have tirelessly advanced this project over the past couple of years. At the forefront in lending their encouragement and guidance were Dixie Barfield, Jim Burdett, Dave Cooney, Alice Henry, Judy Everett, David Arroyo, Ruben Castro, and Jean Heide. We also acknowledge the support of the staff and elected officials of the City of Selma, especially Mayor James Parma and the Selma City Board of Directors, for their efforts toward preservation of the Selma Stagecoach Stop.

We would also like to thank Professor W. Eugene George and Joaquin Escamilla of the Graduate Program in Architecture, The University of Texas at San Antonio, for their specialized assistance with regard to historic preservation. Lastly, we acknowledge the hard work and dedication of the CAR staff. The field crew consisted of Donna Edmondson, Shanti Morell-Hart, Rick Robinson, Kristi Ulrich, and Raymond Mauldin. Bruce Moses and Richard Young drafted the figures in this report. We would also like to extend our gratitude to Steve Tomka (CAR Director), Raymond Mauldin (CAR Assistant Director) and Barbara Meissner for assisting in the analyses of the artifacts. Maryanne King edited the first drafts of this report and Johanna Hunziker formatted the final report. In addition, we acknowledge the advice and assistance provided by Dr. Robert Hard (former CAR Director), Cynthia Tennis and Richard Mahoney during the previous phases of work.

Introduction and Project Background

In March 2000, archaeologists and architects met at the Selma Stagecoach Stop/Post Office with members of the Selma Historical Parks Committee and discussed the restoration plan for the historic structure located adjacent IH-35 North, just east of Cibolo Creek in Selma, northeast Bexar County, Texas (Figure 1). In May 2000, City Mayor James Parma, acting on behalf of the City of Selma, contracted with the Center for Archaeological Research (CAR) of The University of Texas at San Antonio to conduct an archaeological assessment with limited shovel testing of the site (41BX1409). The City of Selma asked for the assessment as part of an overall plan to restore the structure that was intended as one element of a historic park. Of major concern was the impact of removing a built-up berm around the structure to facilitate drainage away from its base. Secondly, restoration of the structure would likely be accomplished with equipment or scaffolding that would penetrate the surface, potentially impacting significant buried deposits.

The shovel testing was carried out in May 2000 with David Nickels serving as project archaeologist. The work was conducted under Texas Antiquities Committee Permit No. 2395, issued to Dr. Robert Hard, then Director of the Center for Archaeological Research. The shovel tests revealed that undisturbed historic cultural deposits were shallowly buried in the berm surrounding the structure and that areas away from the bases of the walls contained deflated deposits. Subsequent archaeological investigations conducted in October 2000 focused on documenting in more detail the nature of the deposits adjacent the structure walls and obtaining architectural information related to wall construction. These investigations involved the hand-excavation of three units around the outside perimeter of the structure and one inside. José Zapata served as the project archaeologist during this phase of investigations. Richard B. Mahoney assumed the duties of Principal Investigator.

A draft report summarizing the results of the October investigations and making recommendations for additional monitoring during construction and comprehensive archival background research was submitted to the Texas Historical

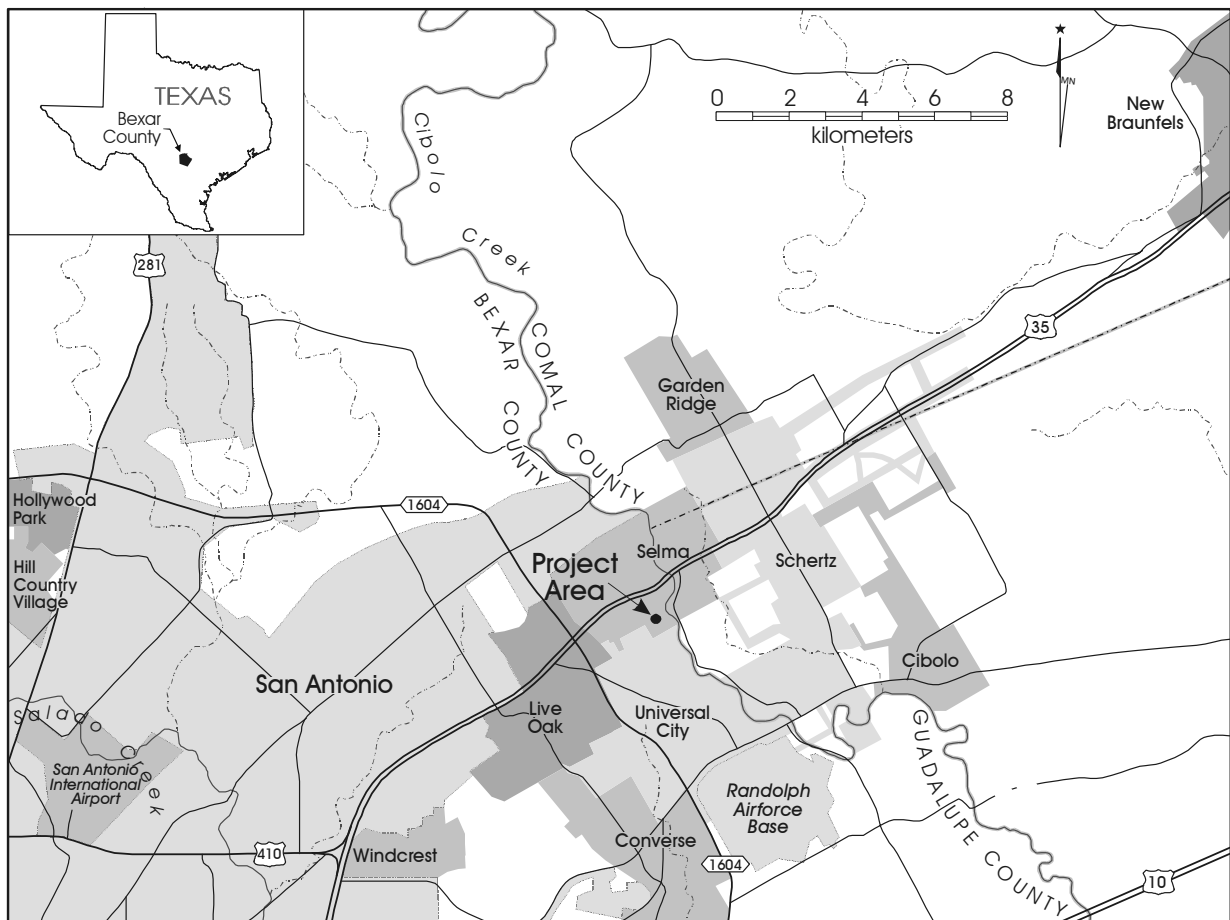


Figure 1. *Project location map.*

Commission (THC) for review (September 22, 2000). While the THC review found the draft report acceptable, it also recommended that the results of a comprehensive archival research be incorporated into a second draft and submitted for final review (see Appendix A).

CAR approached officials from the City of Selma to secure funding for the additional archival research requested by the THC. Unfortunately, by this time, funding dedicated to the project was exhausted and the City could not fund the cost of the archival research and archaeological monitoring recommended by CAR. As a result, the two draft reports were shelved with the hope that the necessary funds would be available at some point in the future. To date, the City of Selma has not received any additional funds from the Texas Department of Transportation to complete the restoration project (Kenneth Roberts, Selma City Administrator, personal communication April 2005). Nonetheless, in order to continue progress on the project, the City entered into an agreement with Cedar Valley Environmental Services of Austin to conduct any additional work associated with the project. This meant that CAR would not receive funding from the City of Selma to carry out the additional archival background research requested by the THC.

This report consists of the combination of the two draft reports detailing the findings of the shovel testing and subsequent test excavations carried out at the Selma Stagecoach Stop/Post Office. It also includes the original recommendations presented in the draft reports. The draft reports were merged and edited by Johanna Hunziker, CAR editor, and Steve A. Tomka, who served as Principal Investigator during the final phase of this project. While we have compiled a brief historical background on the stagecoach stop for this report, the comprehensive archival research originally suggested and requested by the THC review is not in this report. It is hoped that the comprehensive archival history of the Selma Stagecoach Stop will be compiled, since it would serve as a necessary historic context for the planned historical park that is to showcase the history of the community.

Description of the Project Area

The site lies 75 m south of Cibolo Creek, a major tributary of the San Antonio River. The creek originates approximately 16 km west of Boerne from springs flowing out of Edwards Limestone hills, and does not normally flow above ground in the Selma area; rather, it disappears from the surface several kilometers upstream as it drops into the Glen Rose formation (Gerstle et al. 1978:31). However, the Cibolo is prone to flooding during heavy runoffs from the Edwards Plateau and Balcones Escarpment 5 km to the west. Most

recently, a 500-year flood in October 1998 brought water levels to about five feet deep within the stage stop. The structure sits on Venus loam (VaA), a soil normally present on low terraces along major drainages such as Cibolo Creek (Taylor et al. 1991:32–33, Sheet 24). The predominant vegetation is live oak (*Quercus virginiana*) and Texas cedar (*Juniperus ashei*; Simpson 1988:180, 301). In the creek bottom, tall trees shade the ground, leaving little light for understory growth. While it has not been plowed, the alluvial terrace is covered with small trees and medium to heavy brush cover.

Historic Background

The town of Selma, originally named Cibolo, was first settled in 1847. The earliest settlers were William Davenport and John B. Brown, and their families, who ran cattle in the area until the 1860s (Long 2005). A post office was established on June 21, 1852, with John S. Harrison serving as the first postmaster. The name of the post office was changed from Cibolo to Selma February 5, 1856 (National Archives Microfilm Publications 1973). With the influx of German and Polish immigrants during the latter part of the nineteenth century, the population of Selma grew rapidly from 145 in 1885 to 600 in 1896. However, by 1940 the population declined to just 100 (Long 2005). The post office closed effective February 20, 1906 (National Archives Microfilm Publications 1973).

The early stage lines in Texas were closely tied to postal routes. Government mail contracts provided the base for stage companies to establish routes transporting passengers along with the mail. The first stage lines were established in East Texas, with Houston being one of the earliest points of departure to the west (Thonhoff 1971:3). The first lines to run west out of Houston were established in May 1839 and ran between Houston and the city of Washington-on-the-Brazos (Thonhoff 1971:3–4). A line between Houston and Austin was established in late 1839, but San Antonio was left out due to continuing Indian depredations and invasions of the Mexican Army under Generals Vasquez and Woll in 1842. One of the first stage lines to provide service to San Antonio was Brown and Tarbox, owned by John F. Brown and Lyman Tarbox. By 1847, Brown and Tarbox were the proprietors of the Texas U.S. Mail Line of Stages between Houston and San Antonio and the Western U.S. Mail Line of Stages between Port Lavaca and San Antonio (Thonhoff 1971:5). They offered bi-weekly service along each of these mail lines and two different routes between Houston and San Antonio—both of which were rather indirect so as to provide service to many of the larger towns between Houston and San Antonio. One route went to Austin via La Grange and Bastrop before heading south to San Antonio; the second

went through La Grange, Gonzales, Seguin and New Braunfels before arriving in San Antonio (Thonhoff 1971:5).

In 1851, Brown and Tarbox was dissolved with John F. Brown being the successor. Brown continued to run passenger coaches between Houston and Austin, and together with John Harrison, operated the line between San Antonio and Port Lavaca (Thonhoff 1971:8). John Harrison took over the U.S. Mail Stages between San Antonio and Austin, replacing this segment serviced by the defunct Brown and Tarbox line (Thonhoff 1971:9).

John Harrison and William H. McCulloch had established the U.S. Line of Stages between Port Lavaca and Victoria in 1847. They extended the route to New Braunfels where is connected with the San Antonio to Austin line (Thonhoff 1971:6). Harrison and McCulloch had contracted with the U.S. Post Office to run two postal routes between 1846 and 1850: route number 6154 from Gonzales to New Braunfels, and route number 6155 from Gonzales to Port Lavaca (Heide 2000). In 1850 they bid and won postal route number 6285 running between Austin and San Antonio by way of Manchac, San Marcos, Bonito, New Braunfels, Trier and Selma (then Cibolo; Haus 1968:90; Heide 2000; National Archives, Mail Routes, L.A. & Texas, 1850–1854).

By 1861 there were 31 passenger and mail lines operating in Texas, with the majority in East Texas (Stever 2005). The stage lines of Risher and Hall were operating 16 of the 31 lines. Proprietors B. Risher and E. M. B. Sawyer operated

mail lines in Texas by 1858. They were joined by C. K. Hall in 1860 and had operations in Texas and Louisiana (Handbook of Texas Online 2005). An advertisement in the 1871 *Texas Almanac* gives a schedule of Risher and Hall passenger coaches carrying U.S. mail; one such line went from Austin to San Antonio, passing through San Marcos, New Braunfels and Selma, three times a week (Thonhoff 1971:27).

With the arrival of the railroad in Central and South Texas in the 1880s, the use of the stagecoach began to decline. Stage service continued into the early 1900s in rural areas not serviced by the railroad (Stever 2005). When the Selma post office closed in 1906 it was replaced by rural delivery from Bracken and later San Antonio (Long 2005).

The stagecoach era played an important role in the establishment of early settlements in South Texas, providing transportation of freight, mail, and passengers to the Texas frontier.

Field and Laboratory Methods

Phase I – Shovel Testing

At the time of the May 2000 archaeological investigations, the City of Selma had installed a chain-link fence around the structure (Figure 2). A grid was superimposed over a sketch map of the area inside the fence and pin flags, representing the placement of 39 shovel tests (STs), were placed in the ground. Near the structure, the shovel tests



Figure 2. Photograph of western elevation of the Selma Stagecoach Stop and Post Office in 2000.

were laid out on a 10-x-10-foot grid. Approximately 25–30 feet from the structure, the shovel tests were positioned roughly 15–20 feet apart. The grid system was lined up with the orientation of the structure (northwest to southeast) rather than with magnetic north.

The shovel tests, measuring 30 cm in diameter, were excavated in 10-cm levels to depths between 20 and 65 cm below surface (Figure 3; Table 1), dependent upon the nature of cultural material, natural sediments, and/or obstructions encountered. Excavated sediments and soils were screened through ¼-inch mesh. All cultural material was collected and placed in paper bags labeled with the appropriate

provenience, including shovel test number, level, and depth below surface. Each bag was assigned a number and recorded on a field bag log form and transported to the CAR laboratory following each day's fieldwork.

Two 10-inch nails were driven into the ground to serve as a datum and turning point. A total data station (TDS) was used to record shovel test locations and elevations and map the location of the two-track road and the fence line. A total of 126 shots was taken with the TDS. These data were then downloaded and used to create a base map (Figure 3) with Surfer software. Twenty-four photographs and slides were taken to further document the fieldwork.

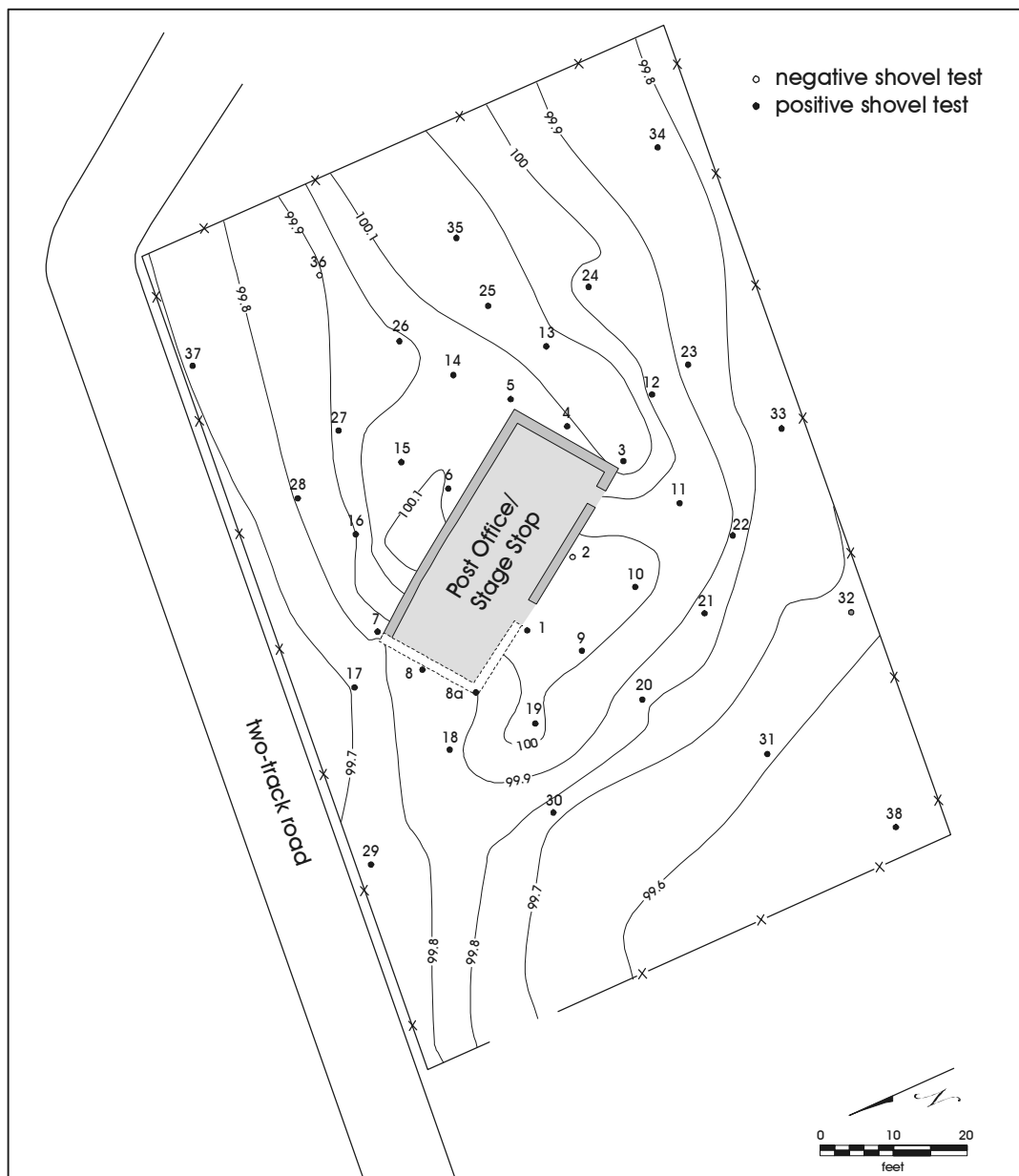


Figure 3. Site area showing locations of shovel tests.

Phase II – Test Excavations

Four units were excavated in October 2000 during the second phase of fieldwork. Unit 1 was a 1-x-1-m unit located 10.4 m (34 ft.) from the structure's northwest corner and in line with the west elevation wall (Figure 4). This unit was situated directly over Shovel Test 8a (ST 8a) so as to expose a greater portion of this area and possibly locate the structure's original northwest corner to determine its original length. This unit was excavated in 10-cm levels to a final depth of 60 cm below surface (cmbs). A north-south oriented wall footer was identified in the unit between 15 and 54 cmbs. The footer was left in place until the rest of the unit was excavated to 60 cmbs at which point all the matrix was removed as a single bulk unit.

Unit 2 measured 1-x-1-m and was located 6.6 m (22 ft.) from the structure's southeast corner and along the east elevation wall (Figure 4). This unit was situated directly beneath a window opening that showed signs of having been altered or repaired (i.e., atypical stone rubble construction below the opening). This unit was located in this area in an effort to determine the function of this opening (i.e., window or door), the mode of construction, and the extent and condition of the wall footer (foundation). The entire unit was excavated to a depth of 40 cmbs. A 20-cm-wide area along its western wall was excavated to 60 cmbs.

Unit 3 was L-shaped and located so as to wrap around the structure's southwest corner; it was 50 cm wide, 1.5 m long north-south, and 1 m long east-west (Figure 4). This unit was located to expose part of the doorway and to study the below-surface condition of this wall, given the corner's deteriorated state. Although most of the unit was excavated to 70 cm below surface, a 1-m-long (N-S) by 80-cm-wide (E-W) section immediately adjacent the doorway was excavated to 78 cm below surface. Levels 1–3 were excavated in 10-cm increments while Levels 4 and 5 were 20-cm-thick recovery units. Finally, Level 6 in the 1-x-0.8-m section of the unit was 8 cm thick.

Unit 4 measured 1-x-1-m and was located in the interior of the structure, at the southeast corner of Room 2 (Figure 4). This unit was situated directly over what appeared to be the remnants of a chimney or hearth. The reason for placing the unit in this location was to determine the size, orientation, and age of the hearth, as well as to determine the type and condition of the interior floor. There was a lot of wall fall-related overburden in the selected area. Before proceeding, a layer of plastic sheeting was laid down along the southeast corner of Room 1, and then between 12 and 18 inches of rubble was removed from the upper part of Unit 4 and placed on the sheeting. The datum was set above the surface at the

Table 1. Depths of Shovel Tests

Shovel Test #	Depth (cmbs)	Shovel Test #	Depth (cmbs)
1	60	20	50
2	50	21	50
3	65	22	50
4	50	23	55
5	50	24	50
6	50	25	50
7	50	26	50
8	50	27	50
8a	20	28	50
9	60	29	50
10	60	30	50
11	60	31	50
12	50	32	50
13	50	33	50
14	50	34	50
15	50	35	50
16	50	36	50
17	50	37	50
18	50	38	50
19	60		

northeast corner of the unit. Unit 4 was excavated to about 66 cm below surface. The unit was excavated in four levels, reflective of changes in soil and/or floor, and sub-floor recovery contexts. Level 1 (0–10 cmbs) consisted of the removal of clay load found under the wall fall. Level 2 (10–25 cmbs) consisted of a 15-cm-thick ashy layer. The level was stopped at 25 cmbs where a possible floor was noted. Level 3 was a 12-cm-thick layer excavated in two sub-levels (3a [25–30 cmbs] and 3b [30–42 cmbs]), although no apparent difference was noted in the matrix during excavation. Level 4 was 24 cm thick and contained the matrix from 42–66 cmbs.

All excavated soils and sediments were screened through ¼-inch mesh. All cultural material was collected and placed in paper bags labeled with the appropriate provenience and depth below surface. Each bag was assigned a number and recorded on a field bag log and transported to the CAR laboratory following each day's fieldwork.

Laboratory Procedures

Cultural materials recovered were inventoried at the CAR laboratory. The proveniences of the materials were double-checked through the use of a bag log number assigned to all artifact bags in the field. Artifacts were washed, sorted, and cataloged before being placed in 4-mil re-closable plastic bags with acid-free labels for curation. Field notes, forms,

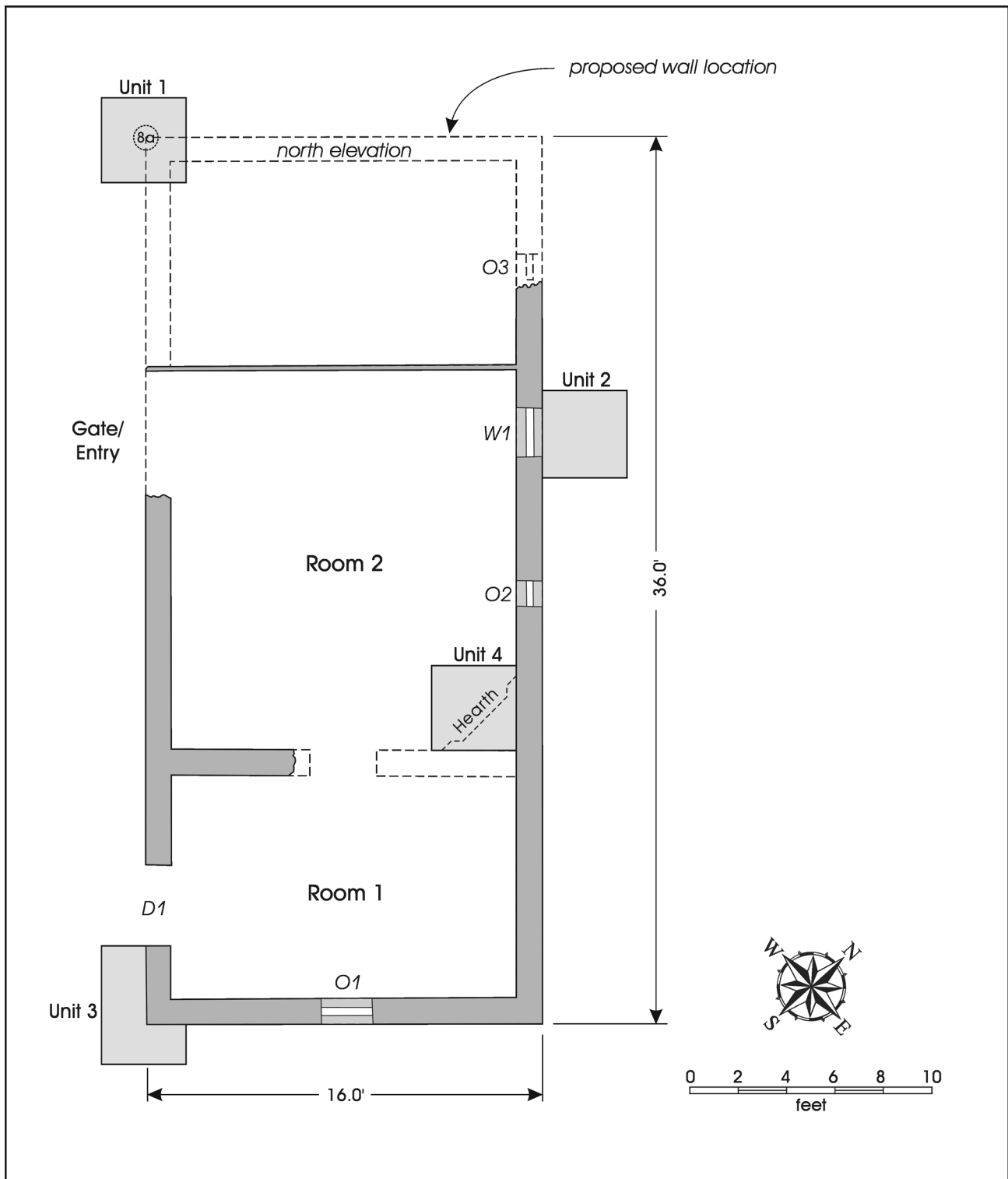


Figure 4. Plan view of structure and locations of test units.

photographs, and drawings were placed in labeled notebooks. Photographs, slides, and negatives were placed in archival-quality sleeves. All artifacts and project-related documents are stored in acid-free boxes for permanent curation at the CAR facility.

Results of Investigations

Shovel Testing

Thirty-seven of the 39 shovel tests excavated on the site were positive for cultural materials. Shovel Tests (STs) 2 and 36, located along the western wall of the structure and in the eastern portion of the fenced area, respectively, produced no cultural materials (Figure 3). All but eight of the shovel tests were excavated to 50 cm below surface. In the eight shovel tests that contained cultural materials in Level 5 (40–50 cmbs), additional excavations consisting of partial or complete levels were carried out until sterile deposits were reached. Accordingly, STs 1, 9–11, and 19 were excavated to 60 cmbs; ST 23 went to 55 cmbs; ST 3 to 65 cmbs; and ST 8a went only to 20 cmbs (see Table 1).

What appeared to be a compacted surface was found around the structure in STs 3–6, 8a, 11, 13 and 14 (Table 2). In addition, changes in soil texture suggested a compacted surface in STs 7, 8, 9, 15, 20, 21, 22, 26, and 27, but without further testing the results are inconclusive.

The structure lies on the edge of a previously cultivated field. Evidence of what appeared to be a plow zone was found in STs 31–34 and 38 (Table 2), thus causing mixing of cultural deposits within the plow zone in those areas.

Shovel Tests 9–13, 22, 25, and 35 were placed in the elevated areas along the western and southern sides of the structure. The information derived from these tests indicates that intact, pre-1950 deposits appear to be present from 0–20 cmbs.

What appears to be a trash pit or a dump area was found in ST 11 located about 3 m (10 ft.) east of the northeastern corner of the structure. Shovel Test 11 was terminated 60 cm below the surface, but ash and burned rocks, metal, brick, and glass were still present in the bottom of the unit. What is likely the corner of the structure was encountered 10–11 cm below the surface in ST 8a.

The results of the shovel testing indicate that the elevated area along the western and southern sides of the structure is relatively undisturbed, with cultural deposits either at or very near the surface. The lower area around the structure is most likely deflated from plowing.

Table 2. Depths of Intact Deposits, Compacted Surface, and Plow Zone in Shovel Tests

Shovel Test #	Intact Deposit (cmbs)	Compacted Surface (cmbs)	Plow Zone (cmbs)
1	10		
2	10		
3	10	35	
4	10	20	
5	0	28	
6	0	10	
7	10		
8	0		
8a	10	18	
9	10		
10	10		
11	10	18	
12	0		
13	0	8	
14	10	21	
15	0		
16	10		
17	25		
18	10		
19	20		
20	0		
21	20		
22	20		
23	20		
24	0		
25	0		
26	10		
27	10		
28	0		
29	20		
30	10		
31	30		31
32	30		30
33	20		25
34	30		30
35	10		
36	50		
37	0		
38	35		35

Test Units

Unit 1

Unit 1 was located 10.4 m (34 ft.) north of the structure's northwest corner and in line with the west elevation wall (Figure 4). The unit was centered directly over ST 8a so as to expose a greater portion of this area and possibly locate the structure's original northwest corner and to determine the structure's original length.

The unit was excavated in 10-cm levels to a final depth of 60 cmbs (ca. 23½ in.). The first level was comprised of a loose, humus-rich sandy loam with a scatter of modern debris. The next two levels (Levels 2 and 3; 10–30 cmbs) were fairly similar and also consisted of a sandy loam, but with less humus and a lot of root disturbance. About 30% of the soil inclusions consisted of small gravels. The cultural material consisted of mixed deposits of chipped stone, fragments of animal bone, assorted bottle glass, undecorated whiteware, and fragments of unidentifiable metal. The wall footer (foundation) was exposed between 14 and 18 cmbs (5½ and 7 in.), and was oriented north-south (Figure 5).

Although the root disturbance continued into the fourth level (30–40 cmbs), this level was intact. The recovered cultural material consisted of fire-cracked rock, undecorated whiteware, cut nails, lamp glass, ochre, and fragments of unidentified metal. The last two levels excavated (40–60 cmbs) were fairly similar to the fourth level, although there were noticeably fewer artifacts. The wall footer was fully exposed in Level 6 and extended 15–54 cmbs (6–21¼ in.). The far north end of the footer was 10.9 m (36 ft.) from the structure's northwest corner. The footer was in good condition and showed no signs of deterioration. There was no indication that the footer would have extended to the east, in order to support a north elevation, tabby-constructed wall. The possibility that there may have been a gate at this end was suggested by the location of a 31-inch chain imbedded in a shallow posthole at the north end of the wall footer (Figure 5).

Unit 2

Unit 2 was located 6.6 m (22 ft.) north of the structure's southeast corner, and along the east elevation wall (Figure 4). This unit was situated directly beneath a window opening that showed signs of having been altered or repaired (i.e., stone rubble construction below the opening; Figure 6). The unit was located in this area in an effort to determine the function of this opening (i.e., window or door), the mode of construction, and the extent and condition of the wall footer.

Unit 2 also was excavated in 10-cm levels to a depth of 40 cmbs (16 in.). In addition, a 20-x-100-cm-wide section of the unit along its west wall, abutting the structure, was excavated to 60 cmbs as one 20-cm-thick level (Level 5). The first level was comprised of a loose, humus-rich sandy loam with a scatter of modern debris. The next two levels (Levels 2 and 3; 10–30 cmbs) were fairly similar and were also comprised of a sandy loam, but with less vegetal material and with heavy root disturbance. Numerous medium- to large-sized rocks were removed from these first three levels, and were probably associated with the adjoining deteriorated wall. Approximately 25% of the backdirt was comprised of gravel, which was a bit denser within the third level (20–30 cmbs). The southeast quadrant of the unit was only excavated to about 20 cmbs due to a large tree root. The recovered cultural material consisted of mixed deposits of cut and wire nails, animal bone fragments, assorted bottle glass, metal fragments, and window glass.



Figure 5. North end of wall footer in Unit 1. Note location of post hole and associated chain.

The root disturbance continued into the fourth level which contained about 15% gravel. The recovered cultural material in this level consisted of milk glass, metal fragments, and a few pieces of chipped stone. Only the western-most 20 cm of the unit was excavated to 60 cmbs. This strategy was followed because the number of artifacts in Level 4 (30–40 cmbs) decreased significantly suggesting that excavations were nearing the sterile zone. The additional 20 cm were excavated to expose the full extent of the wall footer (Figure 7). Depicted in Figure 7 is the bottom portion of the repaired opening, which at 23½ inches wide, would have been too narrow to serve as a doorway. In addition, the bottom is visibly rounded rather than squared. The final depth of the footer was located about 21 inches below surface (53 cmbs). The footer was in good condition and showed no signs of deterioration.

Unit 3

Unit 3 was L-shaped and positioned so as to wrap around the structure's southwest corner; it was 50 cm wide, 1.5 m long north-south, and 1 m long east-west (Figure 4). The purpose of this unit was to expose part of the doorway, and allow us to observe the below-grade condition of this wall, given the corner's deteriorated state. Although most of the unit was excavated to 70 cm below surface, a 1-m-long (N-S) and 80-cm-wide (E-W) section immediately adjacent the doorway was excavated to 78 cm below surface. Excavation of this unit resulted in the recovery of an assortment of animal bone fragments, pieces of lumber, asbestos (not collected), roofing tar fragments, and an abundance of wire and cut nails.

Levels 1–3 of the unit were excavated in 10-cm increments while Levels 4 and 5 each represent 20-cm-thick recovery units. Finally, Level 6 in the 1-x-0.8-m section of the unit was 8 cm thick. The first level (Level 1; 0–10 cmbs) was comprised of a loose, humus-rich sandy loam with a scatter of modern debris. The next two levels (Levels 2 and 3; 10–30 cmbs) were fairly similar and were also comprised of a sandy loam. There was heavy root disturbance along the south elevation wall; this area had been recently cleared of tree stumps. A four-inch diameter tree root was located along the west elevation.

The root disturbance continued into Level 4, 30–50 cmbs (ca. 12–20 in.). Artifact density was fairly low and consisted of cut and wire nails, bottle glass, some charcoal fragments, and undecorated whiteware. Level 5 (50–70 cmbs) contained a few pieces of glass, ceramics, and a metal toy gun. In an effort to expose the full height of the wall footer, a section of the unit along the west elevation was excavated to 78 cmbs (ca. 31 in.). The bottom of the footer was located at about 75 cmbs (29½ in.). The bottom of the door jamb, or frame, was located at about 32 cmbs (12½ in.; Figure 8). Although the above-surface wall was in poor condition (note



Figure 6. Location of Unit 2. Note repaired wall under window opening.

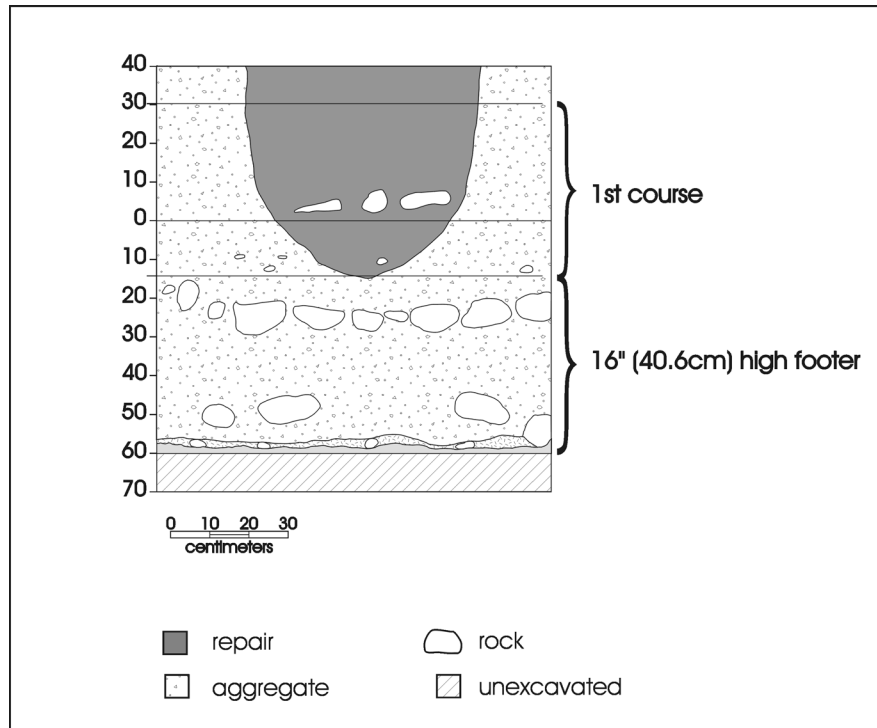


Figure 7. Unit 2, west wall profile.

extreme coving in Figures 8 and 9), the wall footer was in very good condition and showed no signs of deterioration.

Unit 4

Unit 4 was one meter square and located in the interior of the structure, at the southeast corner of Room 2 (Figure 4). This unit was situated directly on what appeared to be the remnants of a chimney or hearth. The reason for placing the unit in this location was to determine the size and orientation of the hearth, as well as to determine the type and condition of the interior floor. A large concentration of wall fall was present in the selected area prior to excavation. Therefore, before proceeding, between 12 and 18 inches of rubble was removed from the surface and placed on a layer of plastic sheeting in the southeast corner of Room 1. The entire procedure was photo-documented. The datum was set eight inches above the original surface at the northeast corner of the unit.

Unit 4 was excavated to 66 cmbs (ca. 26 in.). The unit was excavated in four levels, reflective of changes in soil and/or floor and sub-floor recovery contexts. Level 1 (0–10 cmbs) consisted of the removal of clay load found under the wall fall. Level 2 (10–25 cmbs) consisted of a 15-cm-thick ashy layer. The level was stopped at 25 cmbs where a possible floor was noted. Level 3 was a 12-cm-thick layer excavated

in two sub-levels (3a [25–30 cmbs] and 3b [30–42 cmbs]), although no apparent difference was noted in the matrix during excavation. Level 4 was 24 cm thick and contained the matrix from 42–66 cmbs.

The southeast corner of Room 2 was noticeably disturbed and there was evidence that a possum had nested in the area. With the exception of a few inches of wall fall, most of the excavated soils consisted of powdery, loose ash and sand. An abundance of artifacts was recovered including animal bone, buttons, ceramics, a bead, a complete bottle, bottle glass fragments, and both cut and wire nails. The hearth was brick-constructed, although very few bricks were still in place. Some bricks had been removed and could be seen scattered about in Room 2. The hearth was set against the southeast corner of Room 2 (Figure 4). The hearth was triangular and extended three feet from the corner. Attempts to clean off the west and north walls of the unit proved futile. These areas also were heavily disturbed and the type of flooring could not be determined.

Backfilling of Units

Units 1–3 were backfilled on October 31, 2000. A section of plastic, temporary fencing (orange) was placed on the floor of each unit, and this was then topped with a ½-inch layer of fine sand. With the exception of Unit 4, the excavated

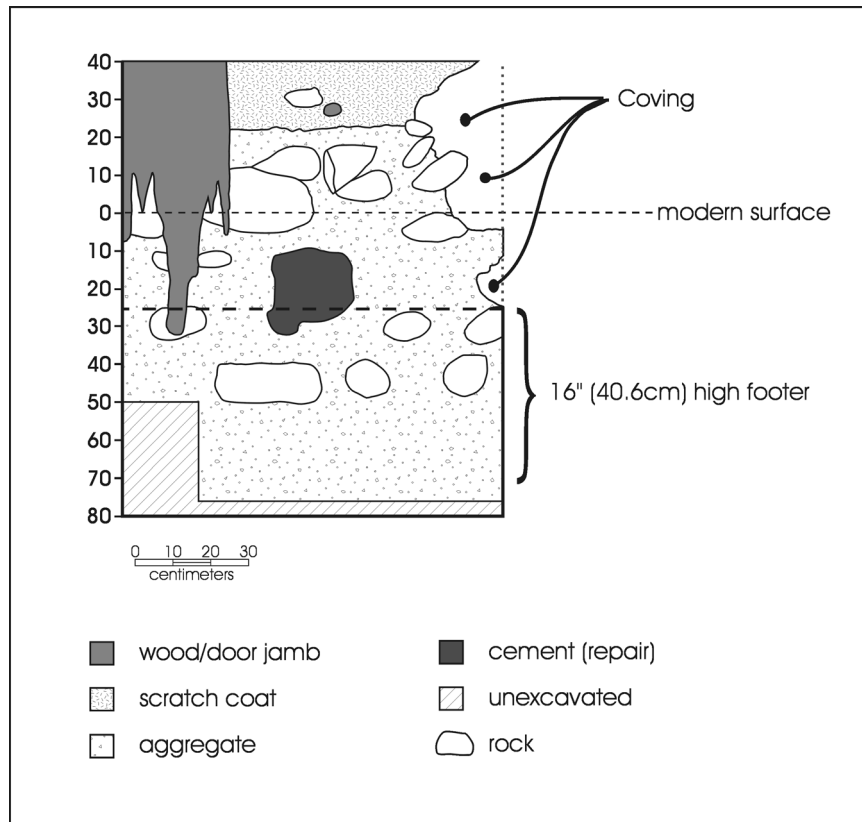


Figure 8. Unit 3, east wall profile.



Figure 9. Base of wall and footing exposed in Unit 3 adjacent the southwest corner of the structure.

soils (screened backdirt) were then used to completely fill the units. Extra care was taken in backfilling Units 2 and 3, since these were excavated along wall footers. The backfill for these two units included large, fist-sized cobbles that were tamped down with the backdirt to check the amount of slumping. In the case of Unit 4, a layer of large rocks was used to top off the fencing material and fine sand. It was backfilled on November 30 after completing the excavations of Levels 3 and 4.

Artifacts Recovered

Artifacts Recovered from Shovel Tests

Artifacts recovered from shovel tests are listed in Appendix B. While no artifacts were recovered that could provide an absolute date, many can be relatively dated based on changes in manufacturing technology through time. Most commonly, glass, nails, and ceramics provide some clues as to when they were manufactured, thus providing an approximated period when they were deposited at the site. Accordingly, this section includes a discussion of the potentially temporally diagnostic artifact categories including window and bottle glass, round and square nails, ceramics, and a shell button found during this project. In addition, a brief discussion of the prehistoric stone tools and manufacture debris (i.e., flakes) recovered is also included.

Window Glass

Dating window glass by thickness has been successfully used in South and Central Texas (Gross and Meissner 1997:240–241; Mauldin and Nickels 2000; Nickels and Fox 1997:11; Nickels et al. n.d.) using Moir's (1988:271) regression equation of $I = 84.22(T) + 1712.7$ (in which I = the initial date of construction and T = the mean thickness in mm). Moir's data regression yields a regression coefficient of .93 at a 95% confidence level of ± 7 years. Quite simply, the

equation uses the mean thickness of window glass found at a site to provide an approximate date when the glass was manufactured ± 7 years. Obviously the date of manufacture does not necessarily represent the date the glass was brought to the site, but it does offer a reasonable time frame. Often, a bimodal or even trimodal distribution in glass thickness will result in more than a single mean, suggesting more than one period of construction or renovation has occurred at the site. It should be noted that the regression formula is designed for window pane glass, but not special plate glass which is usually much thicker than the upper 3.3-mm parameter set for window glass (Moir 1988:264).

Stagecoach Stop Specimens

Eleven window glass sherds were recovered from nine different shovel tests (Table 3). Although the numbers are small, it appears there are four groupings in thickness within the sample: 1.7 mm, 2.0 mm, 2.55 mm, and 3.0 mm. Using Moir's regression formula, there is a 95% probability that the four different window pane thickness groupings were manufactured between (1) 1848 and 1862; (2) 1874 and 1888; (3) 1920 and 1934; and (4) 1958 and 1972.

Bottle and Jar Glass

Finding a piece of bottle or jar glass with a maker's mark on it is always helpful in determining its approximate date and place of manufacture, as well as its likely contents. The shapes of bottles are used to imply what they may have held, and by knowing their contents we can then infer their possible uses. Even though a maker's mark may not be present or legible, the manufacturing technique, labeling process, and color of the glass can provide an approximation of when it was made.

Additives cause glass colors to change through time. Other temporal affiliations can be made based on mold-seam marks. Prior to 1900, most bottles were formed in a hollow,

Table 3. Window Pane Mean Thickness and Probable Dates of Manufacture (based on Moir 1988)

Shovel Test #	Depth	Mean Thickness and Count	Probable Years of Manufacture
21	20-30 cm	1.7 mm (n=2)	1848-1862
6	30-40 cm	2.0 mm (n=1)	1874-1888
3	23-30 cm	2.55 mm (n=6)	1920-1934
8	10-20 cm		
18	0-20 cm		
22	20-30 cm		
32	30-40 cm	3.0 mm (n=2)	1958-1972
9	0-10 cm		
19	0-10 cm		

bottle-shaped, two-piece, hinged mold. Essentially, a glass blower would blow a molten mass of glass into the mold. The molten glass would then expand against the walls of the mold, producing the desired form wanted (Kendrick 1966:31–32). On average, “... in the 1880s it took a shop of three men and three boys to produce approximately 1,500 bottles a day” (Munsey 1970:33).

Two bottle molds commonly used during the nineteenth century were *open* and *closed* molds. The open mold was used during the earlier periods of manufacture. Because the molds were impossible to keep airtight during bottle production, a seam would form on opposite sides of the bottle where the mold would open and close. The seam length serves as the basis for dating these bottles. The open mold usually formed only the body of the bottle, thus leaving a seam on the shoulders, and the neck or lip would then be added by the glassblower, leaving no seam above the shoulders (Kendrick 1966:32–33). This technique was common for bottles manufactured prior to 1860. Between 1860 and 1880, molds were enlarged to include the body and part of the neck. This newer style of mold left a seam that extended not only on the shoulders, but also partially up the neck. As with the earlier mold and technique, the upper portion of the neck and the lip were formed by the glassblower, leaving no seam (Kendrick 1966:47). It was in the 1880s that the closed mold technique became more popular in bottle production (Kendrick 1966:47).

Following the open mold technique, the closed mold was invented and used from the 1880s through about 1900. The greater encompassing closed mold formed the complete body, neck, and lip of the bottle (Kendrick 1966:33), leaving a mold seam extending from the base to the lip. However, since the lip was often smoothed by hand, the seam often stops just below the upper portion of the lip. A redesign of the bottle lip allowed it to accept a crown cork lid. The crown cork lid was invented in 1891, and accompanied by the invention of the Owens bottle-making machine (Munsey 1970:105), this lid became the standard cap for beverage bottles (Kendrick 1966:49–51).

Sometimes bottle bases with a sand-tipped pontil surface are found. The common technique throughout the nineteenth century was to mold glass with a blowpipe. A pontil is a metal rod that would be attached to the base of a bottle to hold it steady while it was still being shaped. After blowing molten glass into a mold to give it the partial shape the glassblower desired, a pontil rod was first dipped in molten glass and then sand. The sand tempered the molten glass on the end of the pontil so that it would not become welded to the base of the bottle. When the glassblower was satisfied

with the final form of the bottle, he would then snap the pontil free from the bottle’s base (Baughner-Perlin 1982:262). When the pontil rod was removed, pebbles and bits of sand in the shape of a ring on the base, called a pontil scar, usually remained ingrained into the glass surface (Baughner-Perlin 1982:266–267). The rough surface was then usually ground smooth. The use of this earlier technique may have decreased when the snap case type pontil became more popular with glass makers in the 1870s (Baughner-Perlin 1982:266–267).

Michael J. Owens patented the first automatic bottle-making machine in 1903, and his Owens machine revolutionized the bottle-making industry. Before 1900, as mentioned previously, the bottle-making industry using glassblowing molds had the capacity of producing 1,500 bottles on a given day. However, with the Owens automatic bottle-making machine the output increased to 33,000 bottles on an average day, thus reducing costs and providing greater quantities for the consumer (Munsey 1970:32–33). The Owens bottle-making machine produced a distinctive off-centered ring on the base of the bottle (Kendrick 1966:83). In 1947, the Hartford I. S. machines replaced the Owens machine; the Hartford I. S. Machines were designed so that they left no distinctive rings on the base (Kendrick 1966:47).

Aqua, amber, olive green and brown are natural colors produced in glass manufacture. Before 1880, the predominate color of bottle glass was green. The standard, natural color of most inexpensive bottles produced since the beginning of glass making, until about 1900 (and even somewhat later for medicine bottles) was aqua, with “varying hues of green and blue” (Munsey 1970:37, 69). Glass is a mixture of lime, soda, and sand with traces of iron oxides. When molten, the iron oxides in the sand cause a chemical change which produces the aqua color (Kendrick 1966:53).

With the exception of “black” glass, glass color was not an important factor until around 1880 when food manufacturers began demanding clear glass containers for preserved foods. Beginning in the 1880s, American manufacturers added manganese to the glass as a decolorizer. After exposure to the sun’s ultraviolet rays, the manganese changes the color of the glass to purple (Munsey 1970:55). Manganese worked fine until the outbreak of World War I in 1915 caused another defining temporal characteristic to occur in bottles. Prior to 1915, Germany was a main supplier of manganese. When the war broke out, the supply of manganese was no longer available to the bottle makers and they resorted to using selenium as a decolorizing agent (Munsey 1970:55). Selenium causes the glass to turn an amber color when exposed to sunlight (Robinson 1971:31).

Techniques for labeling glass bottles also changed through time. Etching was common in the late-nineteenth century (Munsey 1970:51), followed by Applied Color Labeling. Developed in the 1920s, Applied Color Labeling was a technique which used panels or lettering, embellished with enamel. The technique was used more commonly in the 1930s primarily for bottles that were reused, such as soda and milk bottles, but is still in limited use today (Munsey 1970:52). After 1930, when manufacturers were finally able to produce inexpensive containers that would not change colors after long exposure to the sun, clear glass made a comeback (Kendrick 1966:24).

Shards of varying colors and hues were found in many of the shovel tests during this project (Appendix B). As discussed above, their colors provide a general clue as to their antiquity. In summary, they can be aged approximately as shown in Table 4.

Selma Stagecoach Stop Specimens

Three specimens with generally diagnostic technological characteristics, other than color, were found during shovel testing. An aqua glass bottle shard with the remaining embossed letters "...ASTOR..." appears to be what remains of a castor oil bottle. It was recovered from Level 1 (0–10 cmbs) in ST 6. Although castor oil was commonly used for medicinal purposes before the turn of the century (e.g., Israel 1993), and well into the 1950s, the aqua color of this particular bottle suggests it was likely manufactured before 1900 (Munsey 1970:37, 69). A clear glass base fragment was also found in Level 2 (10–20 cmbs) of ST 6. Although this specimen does not have an identifiable maker's mark, it does show the distinctive off-centered ring left by an Owens bottle-making machine, thus indicating it was manufactured between 1903 and 1947 (Kendrick 1966:83), and its clarity suggests it was manufactured after 1930 (Kendrick 1966:24). A light green glass shard with parallel lines etched into an applied glaze was found in Level 2 (10–20 cmbs) of ST 18. Its light green color suggests a pre-1900 date of manufacture, and the etching technique was fairly common before 1900 (Munsey 1970:37, 69).

Ceramics

Whiteware

The presence of white-bodied wares is usually an indicator of nineteenth-century occupation. Whiteware was commonly imported to America from Britain during the 1800s, but the demand for this undecorated type increased significantly in America by 1860. It became a common tableware setting for middle class families around San Antonio after the 1860s, replacing pewter and wooden wares. Whitewares are still being produced today and have not changed significantly over the past 150 years (Fox et al. 1989:45).

Edgeware

Edgewares are decorated using paint over a molded design around their edge. Although edgewares generally occur in Texas between 1780 and 1900, they were most popular before the Civil War (Dial 1992:39; Anne Fox, personal communication 2000).

Lead-Glazed Utility Wares

These wares consist primarily of wheel-thrown bowls, jars, and pitchers. It had been supposed until recently that all of these were made in Mexico and brought to the frontier by the annual supply trains. The possibility has been raised that some of this pottery was made locally. Until evidence is found that the use of the potter's wheel and kilns for firing ceramics had reached Texas by the eighteenth century, it will be difficult to support this theory. These sherds have evenly fired paste and, for the most part, a matured lead glaze. Lead-glazed sherds often have a fine-textured, red-brown paste and are decorated with linear and floral designs in dark brown, green, and cream on the necks of pitcher-like vessels and the outside of bean pots. These are called Galera Ware across the southwestern United States. Schuetz (1969:50) calls this type West Mexico Polychrome and suggests it was made in Jalisco. Barnes (1980:96) states that this type of pottery appeared on the frontier after 1750, which seems to hold true in Texas.

Table 4. Approximate Ages of Glass Based on Color

Color	Age	Color	Age	Color	Age
Brown (thin)	Modern	Amber	Post-1915	Light Brown	Pre-1900
Clear	Modern	Purple	1880-1915	Aqua	Pre-1900
		White	Post-1900	Pink	Pre-1900
		Blue	Post-1900	Light Green	Pre-1900
				Dark Green (thick)	Pre-1880
				Dark Brown (thick)	Pre-1880

Ironstone

Ironstone is similar to whiteware except that it is fired at a higher temperature and normally has writing on it, identifying its manufacturer. As with whiteware, ironstone is not a reliable indicator of age because of its long-term use, but is generally more often found in post-nineteenth-century assemblages (Anne Fox, personal communication 2000).

Stoneware

Popular stoneware found in the area includes Albany slip/Bristol glaze and Bristol (salt) glaze. The combination of Albany slip (brown slip) and Bristol glaze (white) appeared early in the first quarter of the twentieth century and was continuously used until about 1920. Bristol glaze then became the dominant type of stoneware used after 1920 through about 1950 (Greer 1981:212). Another type frequently found is Meyer slip glaze. Meyer Pottery was in operation from 1887 through 1964 in nearby Atascosa, Texas, and manufactured Meyer glazed stoneware (Greer and Black 1971:1). The unique glazing was derived from yellow clays mined on Leon Creek, near the old Frio City road crossing. Workers continued to mine the clays in that area until 1944 when the landowner, Milton Friedrich, sold the property to the Air Force for Kelly Air Force Base (Greer and Black 1971:4). The Meyer family more commonly made flower pots and “art pottery” in the 1940s (Greer and Black 1971:10). Ash-glazed (alkaline) stoneware using plant ash as a source of alkaline flux was a technique introduced into Texas by 1850 (Greer n.d.:6), reaching peak popularity during the Civil War, and phased out by 1900 (Greer n.d.:6–7, 14).

Stagecoach Stop Specimens

Whiteware was the most common type of ceramic recovered from the shovel tests (20 of 39; 51%), and was commonly observed on the surface. As discussed above, whitewares cannot effectively be used as chronological indicators. Like the whitewares, the two ironstone sherds found in Level 2 (10–20 cmbs) in ST 15 can broadly be placed within either the nineteenth or twentieth centuries. One sherd of probable pre-1900 edgware decorated with blue paint (Figure 10a) was found in Level 1 (0–10 cmbs) of ST 20. Brown lead-glazed Galera ware with darker brown decorations was found in six shovel tests (Appendix B), and was occasionally observed on the surface. As with whitewares, such lead glazes are not reliable chronological indicators. Finally, a small sherd of modern, undecorated clay, still found today in many stores, was recovered from Level 3 (20–30 cmbs) in ST 20.

Three stoneware sherds were found and they can effectively be used as chronological indicators. These three sherds have

probable dates of manufacture that range from 1850 to 1964 (Table 5).

Nails

Nails can be classified into three main categories: (1) hand-wrought; (2) cut with hand-hammered heads or cut with machine-made heads; or (3) wire.

Hand-wrought nails were commonly used until the 1800s, falling off in popularity with the introduction of cut nails. Cut nails with hand-hammered heads were in use between ca. 1790 and 1825, followed by cut nails with machine-made heads which were commonly used from ca. 1825 to present. Though they were introduced prior to the 1850s, wire nails did not become the dominant type until the 1890s (Nelson 1968:1–10).

Stagecoach Stop Specimens

A total of 36 cut square and 21 round nails was recovered from shovel testing (Appendix B). Most of the square nails were so badly rusted that distinguishing head types was impossible. However, the predominance of square nails in the assemblage (58%) indicates much of the construction likely occurred prior to 1890, although square nails, to a much lesser degree, were still in use in the 1900s. A total dominance of square nails within a given level provides a viable indicator of age. However, solely using the stratigraphic placement of nails as a relative chronological indicator when mixed with round nails in any ratio is ill-advised; square nails may occur with round nails as a result of pulling the older square nails during later renovations. Thus, the predominance of nail types must be considered in context with other diagnostic artifacts.

Shell Buttons

Shell buttons made from non-iridescent freshwater shells were used as utilitarian fasteners for children’s clothing, underwear, and shirts. Prior to 1850, shell buttons had been imported to America from European markets. Around 1850, the eastern part of the United States began producing its own buttons, with the material source coming from Europe. However by the 1890s, the United States button manufacturers began to commercially exploit this country’s own freshwater shells. By 1900 there were over 200 shell button factories in the United States, and shell buttons were popular from 1890 through 1910, when they were generally replaced by plastic buttons after World War I. The local industry lasted through about 1950 (Claassen 1994:1). Shell buttons were then in greater demand when fashion styles changed from pullover type garments to buttoned fronts (Farrel-Beck and Meints 1983:4).

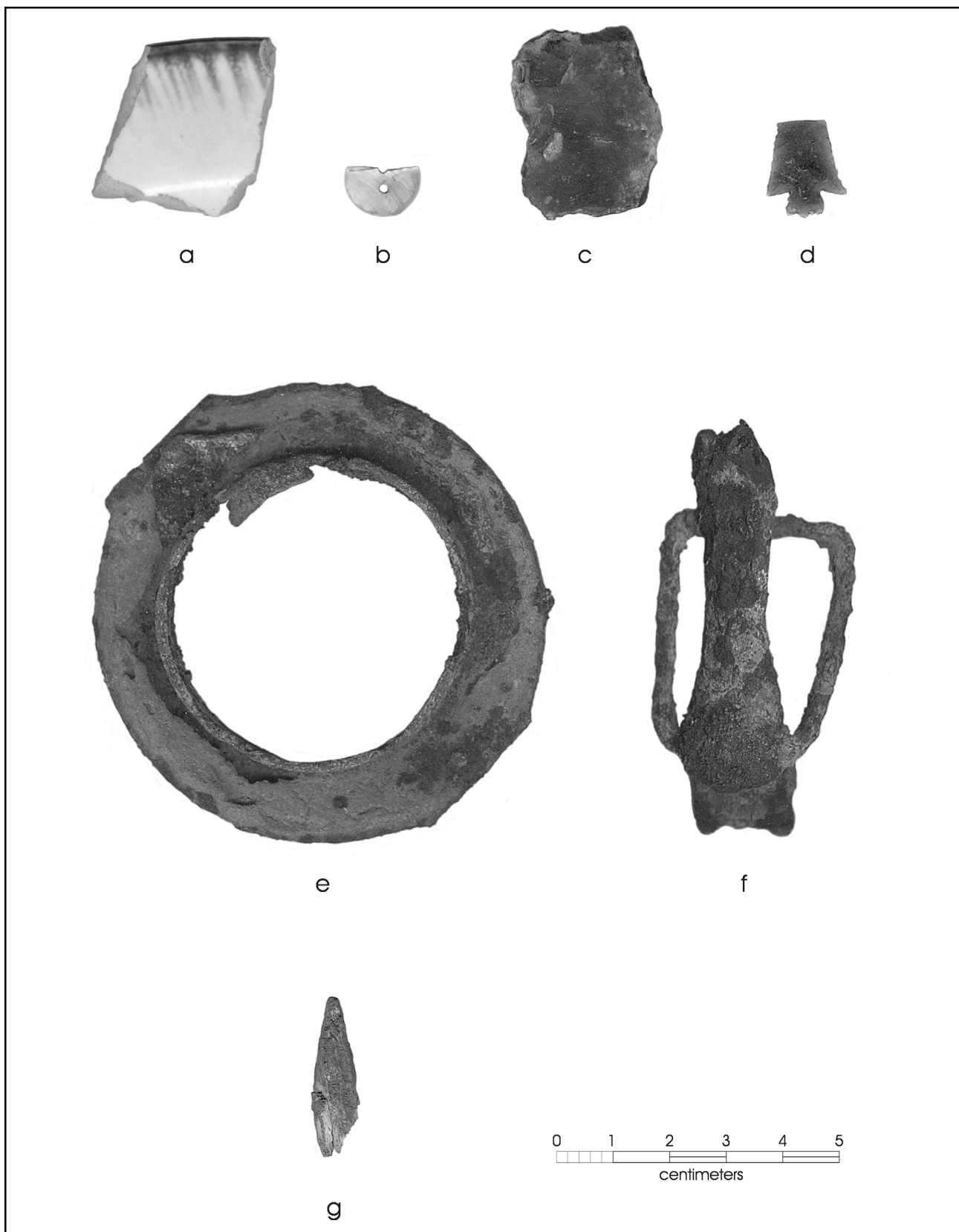


Figure 10. *Selected artifacts recovered from shovel tests.* a) edgeware sherd; b) shell button; c) gunflint; d) Scallorn arrow point; e) wagon wheel stop; f) harness buckle; g) bone awl.

Table 5. Stoneware Recovered from Shovel Tests and Probable Dates of Introduction to the Site

Shovel Test #	Depth	Type	Probable Dates
3	40-50 cm	Ash Glaze	1850-1900
11	30-40 cm	Meyer Slip Glaze	1887-1964
5	0-10 cm	Salt Glaze/Albany Slip	1900-1920

Stagecoach Stop Specimen

A portion of a two-holed shell button (Figure 10b) was recovered from Level 2 (10–20 cmbs) in ST 16. As discussed above, this specimen optimally would have been introduced into the site between 1890 and 1915 (Claassen 1994:1). The 1895 Montgomery Ward & Company Catalog (page 85) provides a guide which matches this particular specimen as an 18 line type, a type commonly used for men's shirts or women's dresses.

Lithics

The presence of prehistoric stone tools and associated flaking debris along Cibolo Creek is extremely common (see for example, Cestaro et al. 2000; Gerstle et al. 1978; Hsu and Ralph 1968; Kibler and Scott 2000; Nickels 1997, 1998). Thus it is not surprising that stone tools and other lithic debris were recovered during this project. However, all of the flaked stone material found is not prehistoric, as at least one piece is identified as diagnostic to the historic period in Central Texas, ca. A.D. 1690–1950 (Collins 1995).

Stagecoach Stop Specimens

The only piece that can be associated with the historic period is a single gunflint (Figure 10c) found in Level 3 (20–30 cmbs) in ST 37. Although crudely shaped, its distinctive chipped edges makes it appear remarkably similar to those recovered from Spanish missions in and around San Antonio, particularly those at Mission San Juan (Steve Tomka, personal communication 2000). Gunflints were commonly used during the nineteenth century (Gluckman 1959; Logan 1959). The only specimen that is clearly diagnostic to the Late Prehistoric period in Texas (A.D. 750–1690) is a Scallorn arrow point (Collins 1995; Turner and Hester 1993) that was found in Level 3 (20–30 cmbs) of ST 6 (Figure 10d). Other stone flaking debris includes 33 flakes from 21 of the 39 shovel tests (Appendix B).

Other Artifacts

A variety of other items were recovered that represent a range of activities that have been carried out at the site, but may or may not be definitive chronological indicators. As such, these items are listed in Appendix B and are highlighted briefly in the following paragraph.

Stagecoach Stop Specimens

Metal items recovered include various metal objects such as a wagon wheel stop (Figure 10e), a harness buckle (Figure 10f), a hasp, broken iron stove parts, auto parts, a kitchen spoon, a bottle cap, round wire, a fence staple, a knife blade fragment, a can opener key, tin can fragments, unidentifiable iron and tin pieces, and spent .22-caliber cartridges. Construction materials recovered include a piece of asphalt shingle, a chunk of mortar, red brick fragments, and a piece of clay tile. Other glass items include light bulb fragments, lantern fragments, auto glass, and an auto reflector. Other obviously modern items found are pieces of styrofoam and plastic. The small quantity of faunal remains recovered include those of rodents, deer-sized and rabbit-sized mammals, a duck-sized bird, and a bison or cow tooth. One unique bone specimen is a weathered bone awl (Figure 10g).

Summary

Appendix C presents the synthesized results of shovel testing with relative chronological indicators by depth. The only artifacts that could have been deposited at the site in the 1850s are a single piece of window glass recovered from ST 21 in Level 3 (20–30 cmbs; see Table 3), a piece of ash-glazed stoneware from Level 5 (40–50 cmbs) in ST 3 (see Table 5), square nails from various shovel tests in mixed deposits, and a gunflint from Level 3 (20–30 cmbs) in ST 37.

Table 2, presented previously, shows the depths below surface at which apparent intact cultural deposits were encountered, and Appendix C shows their estimated age. As stated in the introduction, of primary concern was how much sediment could be removed from around the structure without impacting intact cultural material. Figure 3 shows that STs 9–13, 22, 25, and 35 were placed in the elevated areas along the western and southern sides of the structure. The information received from these tests indicate that pre-1950 deposits appear to be intact ranging from 0–20 cm below the surface.

A further examination of Figure 3, Table 2, and Appendix C reveals what appears to be a compacted surface was found around the structure in STs 3–6, 8a, 11, 13 and 14. In addition, changes in soil texture would seem to suggest a

compacted surface in STs 7, 8, 9, 15, 20, 21, 22, 26, and 27, but without further testing the results are inconclusive.

Artifacts Recovered from Test Units

The historic artifact assemblage recovered during test unit excavations at the Selma Stagecoach Stop/Post Office was comprised of 897 individual artifacts, not including faunal remains (Table 6). For analytical purposes, the items recovered were grouped into several broad categories. For instance, the architectural items category includes artifacts such as nails, window glass, hardware, brick, mortar and plaster. The collection of personal and household items includes buttons, a shoe heel cap, various types of colored glass, bottles, and several examples of historic-period ceramics. The greatest number of items recovered consists of kitchen and household items (n=381), miscellaneous artifacts (n=304), and animal bones (n=289). The vast majority of the bone (66.5%) was recovered from Unit 4. Also recovered from Unit 4 were 85 eggshell fragments. This concentration of bone and eggshell is not at all surprising, since Unit 4 was located directly on the hearth. Miscellaneous objects such as unidentifiable fragments of metal and modern items such as plastic were also recovered from the site.

Lithic Material

A total of 30 lithic items, consisting of one utilized flake, 22 pieces of debitage or chipping debris and seven fire-cracked rock (FCR), was recovered from the four test units at the site. Chert was the primary material type present in the debitage, while limestone and sandstone made up the fire-cracked rock. The single tool, a utilized flake, was recovered from Unit 2, Level 5. The chert flake is 31.7 mm in length, with a single working edge measuring 28 mm in length. The overall amount of use is minimal.

The flaking debris was concentrated in Unit 2, Level 5, where four items were recovered. In both Units 1 and 2, there is a gap in the vertical distribution of material, with no items recovered from 20–30 cmbs. This gap may reflect the presence of at least two different occupations, though it may also reflect the impact of historic and modern disturbance at the site. The fire-cracked rock was concentrated in Unit 4, Level 3, where four pieces of FCR were recovered.

Architectural Material

A total of 138 construction-related artifacts was collected from the four units. The largest groups were nails, brick and window glass. Screws, wood, staples, mortar, tacks, a combination of mortar and plaster, and a bolt round out the assemblage.

Nails were the most common architectural item collected on the site. Machine-cut nails, or more commonly “cut-nails,” numbered approximately 49. The machine-cut nail can be dated to ca. 1838–1890. Most of the cut nails collected were of a size commonly used for roofing and the remainder were of a size used for framing. Thirty-five wire nails were recovered from the excavations. As a generalization, the presence of wire nails in an old building may indicate late-nineteenth-century to twentieth-century repairs or modifications (Nelson 1968). A total of seven wood screws was collected, all varied in size, and all but one was recovered from within the upper levels of the units. Four fencing staples of varying sizes were also collected.

Seventeen brick samples were collected from the unit excavations. One complete brick and 12 fragments were recovered inside the structure from Unit 4, Levels 3b (30–42 cmbs) and 4 (42–66 cmbs). Four fragments came from Unit 2, Levels 1 (0–10 cmbs) and 3 (20–30 cmbs). Early European and American immigrants coming into Texas brought the necessary brick-making skills and began a “cottage industry.” Yet, due to the availability of wood and stone for use as building materials, many early settlers needed only small numbers of bricks for chimneys, hearth areas and other small features. The production of brick in San Antonio began in the 1860s, but was an ephemeral venture. Many companies were started but lasted only a short time. In 1897, the Bem Brick Company began producing unmarked, common bricks and firebricks in San Antonio (Gross and Meissner 1997). These Bem bricks are very similar to those recovered and reported herein, but unfortunately neither of the recovered specimens had a maker’s mark.

Two small samples of mortar and one of plaster were recovered from Unit 4, Levels 2 (10–20 cmbs) and 3 (20–30 cmbs). The two mortar samples may have been associated with the construction of the chimney or could be from the wall construction. The single plaster sample is most likely related to wall construction. Six pieces of wood were collected from Units 3 and 4. One small sample of wood was recovered from Unit 3, Level 3 (20–30 cmbs) and four pieces from Unit 4, Level 3b (30–42 cmbs). Finally, one small specimen of burned wood was collected from Level 4 (42–66 cmbs) of Unit 4. The wood sample was too small for standard radiometric dating.

Eleven small fragments of window glass were collected from inside the structure. The concentration of window glass fragments came from Level 2 (10–20 cmbs) of Unit 4. The fragments are clear glass of various sizes and are too small for analysis or dating.

Table 6. Summary of Recovered Artifacts (Excluding Faunal Remains) from Units 1–4

Unit	Depth	Activity	Arms and Ammunition	Barn and Workshop	Clothing and Personal	Construction	Kitchen and Household	Debitage and FCR	Misc.	Totals
1	0-10 cm				1		4	1	2	8
	10-20 cm			1			27	1	14	43
	20-30 cm			1	1	11	24		23	60
	30-40 cm					5	8	1	3	17
	40-50 cm						3	1		4
	50-60 cm			1		2	3	3		9
	Bulk			1			1			2
Unit 1 Total		0	0	4	2	18	70	7	42	143
2	0-10 cm			4		23	79		3	109
	10-20 cm					20	68	4	8	100
	20-30 cm					4	10		3	17
	30-40 cm						1	1		2
	40-60 cm						8	4		12
Unit 2 Total		0	0	4	0	47	166	9	14	240
3	0-10 cm			1	1	1	3	3	6	15
	10-20 cm			2		7	24	1	6	40
	20-30 cm			9		15	25	1	15	65
	30-50 cm					3	15	1	1	20
	50-70 cm	1					2	1	1	5
	70-78 cm							1		1
Unit 3 Total		1	0	12	1	26	69	8	29	146
4	0-10 cm					3	8		3	14
	10-25 cm			2		25	12		29	68
	25-30 cm	1	1	5	6	7	32	6	133	191
	30-42 cm					4	5		7	16
	42-66 cm				5	8	19		47	79
Unit 4 Total		1	1	7	11	47	76	6	219	368
Grand Total		2	1	23	14	138	381	30	304	897

Kitchen and Household

A total of 381 kitchen and household-related items was collected during the unit excavations. Eighty percent of the kitchen and household material are fragments of bottle glass (n=306). The glass fragments were recovered from various levels in all four units. The majority of these were recovered in Unit 2 (n=166 or 43%). Most of the glass fragments were too small for proper identification, but the color of the glass can be helpful in placing an approximate date of manufacture and use.

There was a high frequency of clear glass fragments recovered from the site (n=225, or 73.5%). Clear glass was not consistently used until the 1880s when the practice of preserving food in glass containers became popular and people insisted on seeing the food product being purchased (Munsey 1970).

A total of 24 fragments of post-1880 purple, manganese-bleached glass was recovered from the units. Brown glass collected from the units totaled 32 small fragments and may also date to the 1880s. Most often brown glass is associated with the bottling of beer and other alcoholic beverages. Nineteen aqua-colored glass shards were also recovered, as well as a fairly unique aqua glass bottle. This bottle was embossed with the words “Mrs. Winslow’s Soothing Syrup, The Anglo American Drug Co, Successors to Curtis and Perkins, Proprietors” and was collected from Unit 4, Level 4, inside the structure. A bottom fragment of the same type of bottle was also recovered from Unit 4, Level 3b. Aqua glass dates to the 1880s and, as indicated by the inscription on the bottle recovered, was used for medicinal purposes. This syrup, first sold in 1849, contained morphine and was used for soothing teething pain suffered by infants (Antique Bottle Price Guides 2001). Single fragments of amber glass (1880–1920) and milk glass (1890–present) were collected

in Unit 3, Level 1 and Level 4, respectively. Two small fragments of olive glass (1880–present) were recovered from Unit 1, Level 4, and Unit 3, Level 1.

Sixty-four ceramic fragments of varying sizes were collected during the unit excavations. The types of ceramics recovered included three basic categories: stoneware, earthenware, and porcelain. This classification was further refined into sub-categories based on glazes and decorations. The highest percentage was recovered from Unit 1 (36%) and the lowest from Unit 4 (18%; Table 7).

Glazed and Unglazed Earthenware

This category consists of utility wares that were primarily wheel-thrown bowls, jars, and pitchers. Of the 11 fragments collected, 10 sherds are glazed and are probably fragments of bean pots. The fine texture paste of the glazed sherds is a red-brown color. The color of the glaze ranges from orange to dark brown. A single unglazed fragment was recovered and is believed to be a wheel-thrown *molcajete*. Pitted marks in the single fragment are indications of use of this *molcajete* for grinding herbs and spices (Anne Fox, personal communication 2001).

White Earthenware

White earthenware was recovered from various levels of all four units. Of the 30 fragments recovered, 29 are plain whiteware and one fragment is decorated, known as decalcomania. The decalcomania is an appliqué which is placed on the ceramic piece after the first firing and then fired again (Durrenberger 1965). The small fragment collected was decorated with a floral decal. This type of everyday ware was very popular in the 1800s and by the late nineteenth century was common tableware in San Antonio (Tennis 1997).

Stoneware

Stoneware is another utilitarian ware that was fairly popular during the nineteenth century. A total of five fragments was collected and four of these are lead-glazed, while the remaining fragment exhibits a salt-glazed exterior and an Albany slip interior (Anne Fox, personal communication 2001). Four of the five fragments were recovered from Unit 1, Levels 2 and 3, and the fifth was recovered from Unit 2, Level 2.

Porcelain

Seventeen porcelain fragments were collected during excavations. Porcelain is the end product of a mixture of very fine-grained clay and kaolin, which has been fired at a

very high temperature. Decorated porcelain is an indicator of socioeconomic status (Tennis 1997). The porcelain collected from Units 2, 3, and 4, Levels 1–4, include two porcelain cup handles (one is blue and molded in the shape of bamboo and the other handle is plain white), a fragment of what was probably a gold-gilded tea cup, one fragment of a porcelain figurine, and 13 fragments that are too small to identify.

Clothing and Personal Items

Fourteen clothing and personal items were recovered from Units 1–4. The items include one blue glass gem, a single glass bead, three ceramic buttons, three shell buttons, one metal button, a brass rivet, a fragment of cloth, a shoe heel with two nails, a toy gun, and a pipe stem. These artifacts were recovered from the hearth, Unit 4, Levels 3 and 4.

Jewelry

The “set” blue glass gem is from Unit 4, Level 4, and was probably dislodged from a piece of jewelry (Anne Fox, personal communication 2001). Also from Unit 4, Level 3, a single glass bead was collected. The glass bead, as classified by R. K. Harris (Type 172), is a large, round, clear, faceted necklace bead of simple construction. It has approximately 30 facets, which appear to be cut out. The surface is slightly frosted, which is probably due to age. This glass bead dates to ca. 1820–1836 (Harris and Harris 1967).

Buttons

Several types of buttons were collected from the four units, they include ceramic and shell buttons, as well as a metal button and a brass rivet. Ceramic buttons have been around since before the 1840s, but were not common because they were extremely expensive. After 1840, mechanization made this type of button affordable. By 1850, the white, four-holed button found on most shirts and dresses was being manufactured in a wide variety of sizes. Shell buttons were made from either marine shell or freshwater shell. One small, four-holed button collected is richly iridescent and is probably made from marine shell, while the larger, two-holed button is less iridescent, and is probably made from freshwater shell. The third button is fragmented and is too small to identify. Machine-made shell buttons replaced hand-cut buttons after 1850 (Meissner 1997). A single metal button and one brass rivet were collected during excavations. The metal button is heavily rusted and is of indeterminate manufacture. Although slightly rusted, the brass rivet is well preserved. Because of its lightweight construction it may have come off of some type of denim clothing, such as a pair of pants or perhaps overalls (Anne Fox, personal communication 2001).

Table 7. Summary of Ceramics Recovered from Units 1–4

Unit	Depth	Ceramic Type						
		Burnished	Unglazed	Stoneware	Lead-glazed	Decal	Porcelain	Plain Whiteware
1	10-20			2	1			10
1	20-30	1		2	2			2
1	30-40							2
1	40-50							1
Unit 1 Total		1	0	4	3	0	0	15
2	0-10					1	5	1
2	10-20			1	1		1	4
2	20-30				1			1
Unit 2 Total		0	0	1	2	1	6	6
3	0-10							1
3	10-20						1	2
3	20-30				2		1	2
3	30-50				3		1	1
3	50-70							1
Unit 3 Total		0	0	0	5	0	3	7
4	10-25						2	
4	25-30						3	
4	42-66		1				3	1
Unit 4 Total		0	1	0	0	0	8	1
Grand Total		1	1	5	10	1	17	29

Other Clothing

A single shoe heel was recovered from the unit excavations. It is constructed of hard rubber with two nails attached to it. There is not enough of the heel left for proper identification and dating. A small fragment of cloth was collected and is also too small for identification.

Miscellaneous Items

A single pipe stem recovered from Unit 4, Level 4, is constructed of modern plastic, which is extremely common and too recent to date. A child's metal toy gun was recovered from Unit 3, Level 5, but was too rusted to identify.

Barn and Workshop

Various items, which include a chain, a coil, a copper casing of a .22-caliber bullet, metal scrap, plastic, rubber and wire, were recovered from all units, Levels 1–5. A large metal chain was collected from Unit 1. The chain is 31 inches in length with a two-inch fastening hook at one end. It was probably used to keep a gate closed. A single coil or spring was recovered from Unit 3, Level 3. Its use is unknown. A total of 11 pieces of wire was collected from Units 1, 3, and 4. The wire is thin and could have been used for baling hay.

Vertebrate Faunal Material

A total of 289 pieces of animal bone, weighing 343.86 grams, was recovered during the project. The bone was identified to the most specific taxon possible using the comparative collection at CAR (Table 8). The bone is generally in good condition, with little evidence of damage from atmospheric or chemical weathering; however, the vast majority is of recent deposition. Butchering marks were noted as having been made by both machine and hand, with most being machine-cut. This collection is much too small to be used to infer the occupants' diet. The only observation and suggestion that can be made is that most of this bone may have been deposited on this site by scavengers (e.g., opossum or hog-nosed skunk).

Miscellaneous

A total of 148 pieces of scrap metal was recovered from various levels in all four units. The material is much too rusted and fragmented for further description or identification. Two pieces of plastic were collected from Units 2 and 3 and are too small for identification. Four rubber fragments were collected from Unit 3 and possibly are part of the roofing material. A single unidentifiable metal object

was recovered from Unit 4. An unidentified aluminum reflector, with slightly burned edges, was collected from Unit 1, Level 3.

Summary

Our conclusions regarding the temporal distribution of the artifact assemblage agree with those of the Phase I Shovel Testing. The Phase I and Phase II artifactual evidence strongly suggests a ca. 1850–1900 occupation, and few artifacts support a post-1900 occupation.

The strongest evidence of an early, ca. 1850, date for this site is the structure itself (see Discussion below). Approximately 75% of the original fabric of the structure is extant. Considering the age of the building and the years of neglect, the structure is in good condition. Much of the original roofing material is in-place, and includes hand-hewn lumber and cedar shingles (Figure 11). Much of the stucco is evident and can be sampled in order to arrive at a comparable recipe; the tabby can be similarly sampled.

The results of both of these phases also demonstrated that the area adjacent the structure (within 20 ft.) is comprised of between five and 14 inches of overburden, and that the strata beneath this overburden does seem intact. In contrast, and based on the Phase I testing, the area beyond this 20-foot perimeter, but within the chain-link fence enclosure, has been severely impacted by years of plowing. The exception to this might be the area to the north and east of the service road.

Discussion

These excavations were designed to provide answers to a series of architecturally related questions. There was a need to determine the mode of construction and condition of the wall foundations; the function of the diagonal openings; the function of the wooden pegs; the presence or absence of mortared bricks; and finally, the type of flooring.

Based on these excavations, it seems that the east and west elevations were constructed in a series of 12-inch-wide by 16-inch-high pours. The first course would have acted as the below-surface wall foundation, or footer. An additional six courses would have given the east and west elevations an above surface height of exactly eight feet. The south elevation, gable end, had three additional pours. These pours were accomplished through the use of forms that were braced by wooden pegs that are visible throughout most of the walls, and had been thought to relate to shelving supports, or wall

anchors. Figure 12 illustrates the pours and pegs associated with the interior east elevation wall. Insofar as the wall footers are concerned, these were determined to be in excellent condition. None of the exposed areas showed signs of deterioration. The lime-based sand and cobble aggregate is strongly cemented and was not flaking or crumbling.

Also of interest to this study was the chimney and interior flooring. Based on the Unit 4 excavations, we were able to determine that the bricks were weakly cemented with a lime-based mortar. Very few of the original bricks remained in place, but the few that did remain indicate that the chimney was oriented diagonally. The remaining bricks were left undisturbed for future consideration. Because the area around Unit 4 was heavily disturbed, we were unable to determine the type of flooring.

We had also hoped to locate the north elevation wall footer, but considering the amount of disturbance in this area, we were only able to locate the far north end of the west elevation wall. Excavation did, however, locate what appeared to be the remnants of a posthole (Figure 5).

Figure 5 reveals a gatepost chain, still fastened, at the far north end of the wall footer. The chain was 31 inches long when unfastened and could have easily wrapped around and held together two 4- to 6-inch gateposts. We imagine that, over time, the gate must have been neglected and the chain forgotten and hidden beneath the accumulated soils. What remains a mystery is the missing north elevation wall, if in fact there ever was one.

Recommendations

This is an extremely important site in terms of both its historical (stagecoach stop and post office) and architectural uniqueness (tabby-constructed) and significance. In the entire state, there are only 13 recorded structures that served as either stage stops or inns; one of these is the Aue Stagecoach Inn in Leon Springs, Bexar County (Texas Historical Commission 2001). The stagecoach era in Texas dates from 1837 to the early-1880s (Stever 2005). Although relatively brief, this was an immensely important episode in Texas history, as it was the driving force behind additional community development and town origins along these stage routes. The Texas Almanacs for 1861 and 1871 cite Selma as a stage stop along the San Antonio to Waco and San Antonio to Austin routes, respectively (Thonhoff 1971).

As it relates to the architecture, there are only three recorded sites of similar construction in the entire state. Two of these

Table 8. Summary of Faunal Material Recovered

Taxa	Common Name	Count	Weight (g)
Mammalia	Mammals		
Artiodactyl	Deer, sheep, goats	17	85.18
Bovinae	Cattle or bison	5	73.00
<i>Conepatus mesoleucus</i>	Hog-nosed skunk	1	2.57
<i>Dasyus novemcinctus</i>	Armadillo	3	6.07
<i>Didelphis virginiana</i>	Opossum	11	10.91
<i>Odocoileus virginianus</i>	Whitetail deer	1	1.92
Rodentia	Rodents	6	0.36
<i>Sus scrofa</i>	Domestic pig	6	39.28
<i>Sylvilagus</i> sp.	Cottontail rabbit	39	18.81
Mammal--small	Rabbit-sized	3	0.40
Mammal--large	Deer, sheep-sized	8	15.11
Mammal--very large	Cattle, bison, horse-sized	12	14.47
Mammal	Size indeterminate	101	33.14
	Total Mammals	213	301.22
Aves	Birds		
<i>Gallus gallus</i>	Chicken	23	25.85
Aves	Size indeterminate	26	6.41
	Total Birds	49	32.26
Reptilia	Reptiles		
Emydidae	Sliders and box turtles	1	0.99
Testudinata	Turtles	1	5.00
	Total Reptiles	2	5.99
Amphibia	Amphibians		
<i>Bufo</i> sp.	True toads	4	0.22
	Total Amphibians	4	0.22
Osteichthyes	Boney Fishes		
<i>Ictalurus</i> sp.	Freshwater catfish	2	0.20
<i>Pylodictus olivaris</i>	Bullhead catfish	2	0.37
Osteichthyes	Unidentified fish	11	2.72
	Total Fishes	15	3.29
Vertebrata	Unidentified bone	6	0.88
	Overall Totals	289	343.86

are located in Refugio County: the Edward Perry House, constructed ca. 1830, and the James Power House, constructed ca. 1830–1834 (Texas Historical Commission 2001). These two examples were difficult to locate, since both are described as being constructed of shell-concrete rather than tabby. The third site is the Sebastopol, constructed ca. 1850, located in Guadalupe County. In this case, the construction material is termed limecrete rather than tabby (Sauer et al. 1998). At the national level, there are three such structures listed under the Historic American Building Survey, and these are located in Georgia and South Carolina (Library of Congress 2001). Additional listings, histories,

and preservation briefs on tabby construction can be found at the Georgia Historic Preservation Division's web site (<http://www.gashpo.org>) and the Henry Ford Museum and Greenfield Village web site (<http://www.hfmvgv.org>).

At this point, two questions relating to the building's construction, site utilization, and occupancy remain unanswered. These concerns can be addressed by means of additional archaeological investigations and through extensive archival research, including the recovery of oral narratives. These two questions and recommendations are outlined in the following sections.



Figure 11. *Construction detail of the southwest corner of the stage stop/post office structure, above Unit 3.*

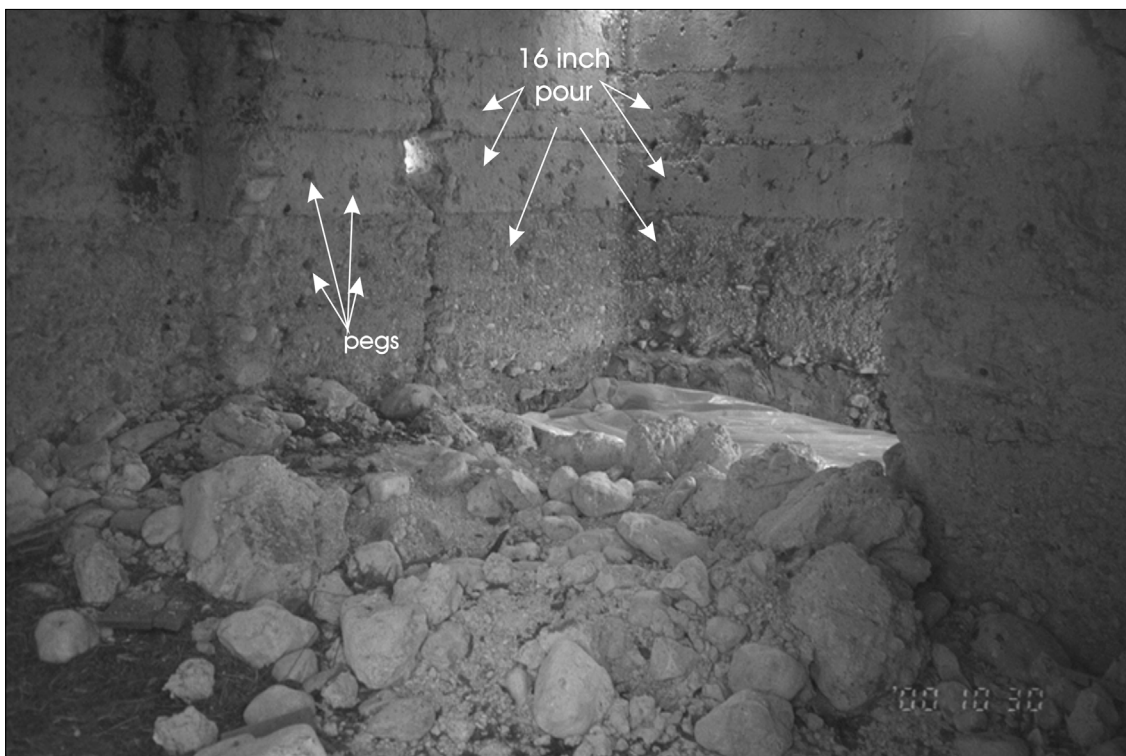


Figure 12. *View of interior wall fall and tabby-related features (pours and pegs).*

Question 1: Is the extent of the stage stop outlined by the chain-link fence, or does the site encompass a larger yet to be determined area?

The most pressing question has to do with the extent of the site. While we do know that the area outside the chain-link fence has been heavily impacted by years of plowing, we nevertheless recommend archaeological monitoring of any required subsurface disturbances outside of the fenced area.

Because the site's extent remains unknown, we need to identify the limits of the area associated with the stagecoach stop. On the one hand, this is necessary to accurately portray the components of the stage stop to maintain historical accuracy. On the other hand, associated features that may be found outside and at some distance from the stage stop structure itself will need to be protected from negative impacts or investigated to define their nature and extent.

Based on the few remaining similar sites mentioned above, facilities associated with stagecoaches may be located at some distance from the principal structure. Therefore, it is possible that related facilities and features, and thereby the limits of the site, may extend at least 200 feet in any direction from the structure. The making of a base map utilizing on-site mapping, aerial photography, and oral histories can greatly help identify and locate structures and facilities formerly associated with the stagecoach stop. This base map can then be used to pinpoint any future finds (artifacts and/or features), especially those resulting from the proposed monitoring.

Although additional site clearing is recommended, this should not proceed until immediately prior to any planned restoration. The accumulated overburden around the building should be removed, as should any trees, shrubbery, and associated roots. As noted above, the wall footer is a mere 12 inches wide and 16 inches high. If left unattended, root systems will eventually undermine the wall footer. The amount of overburden around the building varies considerably, and is between five and 14 inches thick. The original surface around the northwest end of the building is located about six inches below the modern surface; five inches below the modern surface at the northeast end; and 14 inches below the modern surface at the southwest end. The amount of overburden in the interior of the structure varies considerably and consists of discarded lumber, wall fall, branches, and hay. The area just north of the location of Unit 4 is heavily disturbed by animal burrowing. Given that we still lack sufficient information about the structure's north elevation, a historic archaeologist or historic preservation architect should monitor additional site clearing in this area.

In addition to the proposed archaeological monitoring, it is highly recommended that every effort be made to locate nineteenth-century maps of the area, as well as early-twentieth-century maps and/or aerial photographs. A search through various archival holdings should locate one or more postal-road maps, military scouting reports and maps, and state highway maps and aerial photos. The Texas State Library and Archives has several maps that might be of interest. This same library has a collection of late-nineteenth- and early-twentieth-century photos that might be of interest. The Texas Department of Transportation and/or Tobin International, Ltd. may have early-twentieth-century aerial photos of the area. There are numerous archival collections that can be pursued to reconstruct the area around the stage stop and locate corrals, outbuildings, and roads.

Question 2: When was the board-and-batten north elevation wall constructed?

The north elevation of the structure is of board-and-batten construction. Could it be that the missing tabby-constructed wall gave way to flooding, or could this be the result of adaptive reuse? It seems unlikely that a good solid wall would have been intentionally razed. It seems much more likely that the wall collapsed some time after having been abandoned and then reconstructed nine feet to the south of the original wall, with board-and-batten so that the structure might be of some use as a barn. What remains problematic is the fact that the east extension of the wall footer is missing, at least within the area of Unit 1.

This mystery may be solved through additional excavation at this end of the structure. We recommend that efforts be expended to identify the location of the north elevation wall through the manual excavation of narrow north-south oriented trenches across the presumed area of its location. Two to three such trenches excavated along the presumed route of the wall would identify its location and allow characterization of the state of preservation along the length of the wall.

Based on the Unit 1 excavations, we know that there was a gate at the northwest corner of the structure, but believe this relates to a corral or pen that is very likely associated with the board-and-batten modification. We also recommend that the project architect and/or archaeologist monitor any below-grade disturbance along the walls of the structure.

In addition to the proposed archival research, restoration monitoring, and archaeological fieldwork, we highly recommend that every effort be made to locate and interview some of the older members of the Selma community. Such narratives may add a wealth of information regarding site

ownership and site use, as well as possibly pinpointing and/or describing the location of outbuildings or features. By the same token, deed records should provide some description of the property. Similarly, abstracts of adjoining properties also should be consulted as these often contain descriptions of neighboring properties. The census and tax records from between 1850 and 1950 also should be reviewed in an effort to identify prior residents and site use.

We feel that these recommendations are appropriate given the site's historical significance. To reiterate, this site is one of only a dozen or so extant stage stops, and is one of only four known tabby-constructed buildings in the entire state.

References Cited

Antique Bottle Price Guides

- 2001 Dangerous Drug Bottles. <<http://www.bottlebooks.com/dangerou.htm>> Accessed April 20, 2001.

Barnes, M. R.

- 1980 Mexican Lead Glazed Earthenwares. In *Spanish Colonial Frontier Research*, compiled and edited by H. F. Dobyns. Center for Anthropological Studies, Spanish Borderlands Research 1, Albuquerque.

Baughner-Perlin, S.

- 1982 Analyzing Glass Bottles for Chronology, Function, and Trade Networks. In *Archaeology of Urban America: The Search for Pattern and Process*, edited by R. S. Dickens, Jr., pp. 258–289. Academic Press, New York.

Cestaro, G. C., A. M. Scott, and K. W. Kibler

- 2000 *Cultural Resources Survey of 2,302 Acres at Camp Bullis Military Reservation, Bexar County, Texas*. Reports of Investigations, Number 125. Prewitt and Associates, Inc., Austin.

Claassen, C.

- 1994 Washboards, Pig Toes, and Muskets: Historic Musseling in the Mississippi Watershed. *Historical Archaeology* 28(2):1–145.

Collins, M. B.

- 1995 Forty Years of Archaeology in Central Texas. *Bulletin of the Texas Archeological Society* 66:361–400.

Dial, S. W.

- 1992 Ceramics. In *Archaeological Investigations in Alamo Plaza, San Antonio, Bexar County Texas: 1988 and 1989*, edited by A. A. Fox, pp. 29–46. Archaeological Survey Report, No. 205. Center for Archaeological Research, The University of Texas at San Antonio.

Durrenberger, E. P.

- 1965 Anderson's Mill (41TV130): A Historical Site in Travis County, Texas. *Bulletin of the Texas Archeological Society* 36:1–70.

Farrel-Beck, J. A., and R. H. Meints

- 1983 The Role of Technology in the Fresh-water Pearl Button Industry of Muscatine, Iowa, 1891–1910. *Annals of Iowa* 47:3–18.

Fox, A. A., I. W. Cox, L. Highley, and D. Hafernik

- 1989 *Archaeological and Historical Investigations at the Site of the New Bexar County Justice Center in Downtown San Antonio, Texas*. Archaeological Survey Report, No. 184. Center for Archaeological Research, The University of Texas at San Antonio.

Georgia Historic Preservation Division

- 2001 The Conservation and Preservation of Tabby. <<http://www.gashpo.org>> Accessed April 20, 2001.

Gerstle, A., T. C. Kelly, and C. Assad

- 1978 *The Fort Sam Houston Project: An Archaeological and Historical Assessment*. Archaeological Survey Report, No 40. Center for Archaeological Research, The University of Texas at San Antonio.

- Gluckman, A.
1959 *Identifying Old Muskets, Rifles & Carbines*. Stackpole Books, Harrisburg, Pennsylvania.
- Greer, G. H.
n.d. Preliminary Information on the Use of Alkaline Glaze for Stoneware in the South, 1800–1970. Unpublished manuscript, copy on file, Center for Archaeological Research, The University of Texas at San Antonio.
1981 *American Stonewares, The Art and Craft of Utilitarian Potters*. Schiffer Publishing, Exton, Pennsylvania.
- Greer, G. H., and H. Black
1971 *The Meyer Family: Master Potters of Texas*. Trinity University Press, San Antonio.
- Gross, K. J., and F. Meissner
1997 Architectural Materials. In *Archaeology at the Alamodome: Investigations of a San Antonio Neighborhood in Transition, Volume III, Artifact and Special Studies*, edited by A. A. Fox, M. Renner, and R. J. Hard, pp. 229–24. Archaeological Survey Report, No. 238. Center for Archaeological Research, The University of Texas at San Antonio.
- Handbook of Texas Online
2005 Risher and Hall Stage Lines. <<http://www.tsha.utexas.edu/handbook/online/articles/view/RR/err1.html>> Accessed April 11, 2005.
- Harris, R. K., and I. M. Harris
1967 Trade Beads, Projectile Points, and Knives. In *A Pilot Study of Wichita Indian Archaeology and Ethnohistory*, compiled by R. B. Bell, E. B. Jelks, and W. W. Newcomb. Report to the National Science Foundation, Grant GS-964.
- Haus, O.
1968 *History of New Braunfels and Comal County, Texas, 1844–1946*. Steck Company, Austin.
- Heide, J.
2000 Harrison & McCulloch Stage Stop, Selma Texas, 1850–1854. <<http://texas.i-found-it.net/HarrisonStageStop.html>> Accessed April 11, 2005.
- Henry Ford Museum and Greenfield Village
2001 The Care and Preservation of Historic Tabby. <<http://www.hfmvgv.org>> Accessed April 20, 2001.
- Hsu, D. P., and R. W. Ralph
1968 *An Appraisal of the Archeological Resources of Cibolo Reservoir, Wilson County, Texas*. Archeological Survey Report Number 1, Texas State Building Commission and Texas State Water Development Board, Austin.
- Israel, F. L. (editor)
1993 *1897 Sears, Roebuck Catalog*. First published in 1968, reissued by Chelsea House Publishers, New York.
- Kendrick, G.
1966 *The Antique Bottle Collector*. Edwards Brothers, Inc., Ann Arbor, Michigan.
- Kibler, K. W., and A. M. Scott
2000 *Archaic Hunters and Gatherers of the Balcones Canyonlands: Data Recovery at the Cibolo Crossing Site (41BX377), Camp Bullis Military Reservation, Bexar County, Texas*. Reports of Investigations, Number 126. Prewitt and Associates, Inc., Austin.

Library of Congress

- 2001 American Memory: Historical Collections for the National Digital Library, <<http://memory.loc.gov>> Accessed April 20, 2001.

Logan, H. C.

- 1959 *Cartridges - A Pictorial Digest of Small Arms Ammunition*. Bonanza Books, New York.

Long, C.

- 2005 Selma, Texas. The Handbook of Texas Online <<http://www.tsha.utexas.edu/handbook/online/articles/view/SS/hls36.html>> Accessed April 11, 2005.

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

- 2000 *An Archaeological Survey of Twin Buttes Reservoir, Tom Green County, Texas*. Archaeological Survey Report, No. 300. Center for Archaeological Research, The University of Texas at San Antonio.

Meissner, B.

- 1997 *The Alamo Restoration and Conservation Project: Excavations at the South Transept*. Archeological Survey Report, No. 245. Center for Archaeological Research, The University of Texas at San Antonio.

Moir, R. W.

- 1988 Windows and Window Glass. In *Historic Farming on the Hogwallow Prairies, Ethnoarchaeological Investigations of the Mountain Creek Area, North Central Texas*. Joe Pool Lake Archaeological Project, Volume 2. Archaeological Research Program, Institute for the Study of Earth and Man, Southern Methodist University, Dallas.

Montgomery Ward & Co.

- 1895 *Catalog and Buyer's Guide, No. 57, Spring and Summer*. 1969 reprint by Dover Publications, Inc., New York.

Munsey, C.

- 1970 *The Illustrated Guide to Collecting Bottles*. Hawthorn Books, New York.

National Archives Microfilm Publications

- 1973 Record of Appointment of Postmasters 1832–September 30, 1971. Roll 121. Microfilm Publication M841. National Archives and Records Service, Washington D.C.

Nelson, L. H.

- 1968 Nail Chronology as an Aid to Dating Old Buildings. *American Association for State and Local History, Technical Leaflet* No. 48. Nashville, Tennessee.

Nickels, D. L.

- 1997 *An Archaeological and Geomorphological Investigation of Northrup Park, Boerne, Kendall County, Texas*. Archaeological Survey Report, No. 247. Center for Archaeological Research, The University of Texas at San Antonio.
- 1998 *An Archaeological Investigation of Comanche Lookout Park, Northeast Bexar County, Texas*. Archaeological Survey Report, No. 275. Center for Archaeological Research, The University of Texas at San Antonio.

Nickels, D. L., and A. A. Fox

- 1997 *Archaeological Investigations within the Church Sacristy at Mission San Jose (41BX3), San Antonio, Bexar County, Texas*. Archaeological Survey Report, No. 242. Center for Archaeological Research, The University of Texas at San Antonio.

- Nickels, D. L., K. Miller, R. Mathews, C. Murguia, A. A. Fox, and P. C. Camfield
 n.d. Archaeological Excavations at the Fassel-Roeder Wheelwright Shop on the Grounds of the Gillespie County Historical Society's Pioneer Museum, Fredericksburg, Texas. Manuscript on file, Center for Archaeological Research, The University of Texas at San Antonio.
- Robinson, D. P.
 1971 *Antique Bottle Identification Made Easy*. ATR Enterprises. Prescott, Arizona.
- Sauer, S. R., A. Black, and C. Brandimarte
 1998 *Sebastopol State Historical Park (41GU9), Seguin, Texas: Archaeological Excavations, 1978–1988*. Report of Investigations, No. 111. Prewitt and Associates, Inc., Austin.
- Schuetz, M. K.
 1969 *The History and Archeology of Mission San Juan Capistrano, San Antonio, Texas, Vol. 2, Description of the Artifacts and Ethnohistory of the Coahuiltecan Indians*. Archeology Program Report 11. State Building Commission, Austin.
- Simpson, B. J.
 1988 *A Field Guide to Texas Trees*. Gulf Publishing Company, Houston.
- South, A. P.
 1999 Letter from National Archives, Washington, D.C. to Jean Heide, Selma Historical Parks Association dated April 27, 1999. Copy on file, Center for Archaeological Research, The University of Texas at San Antonio.
- Stever, R. H.
 2005 Stagecoach Lines. Handbook of Texas Online. <<http://www.tsha.utexas.edu/handbook/online/articles/view/SS/ers1.html>> Accessed April 11, 2005.
- Taylor, F. B., R. B. Hailey, and D. L. Richmond
 1991 *Soil Survey of Bexar County, Texas*. Soil Conservation Service, U.S. Department of Agriculture, Washington, D.C.
- Tennis, C.
 1997 Ceramic Patterns and Variations. In *Archaeology at the Alamo: Investigations of a San Antonio Neighborhood in Transition, Vol. III, Artifact and Special Studies*, edited by A. A. Fox, M. Renner, and R. J. Hard, pp. 1–37. Archaeological Survey Report, No. 238. Center Archaeological Research, University of Texas at San Antonio.
- Texas Historical Commission
 2001 Texas Historic Sites Atlas. <<http://atlas.thc.state.tx.us>> Accessed April 20, 2001.
- Thonhoff, R. H.
 1971 San Antonio Stage Lines, 1847–1881. *Southwestern Studies, Monograph No. 29*, The University of Texas at El Paso. Texas Western Press, El Paso.
- Turner, S. E., and T. R. Hester
 1993 *A Field Guide to Stone Artifacts of Texas Indians*. Gulf Publishing Company, Houston.

Appendix A

Texas Historical Commission Review Comments



TEXAS
HISTORICAL
COMMISSION

The State Agency for Historic Preservation

GEORGE W. BUSH, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWERENCE OAKS, EXECUTIVE DIRECTOR

RECEIVED
CENTER FOR ARCHAEOLOGICAL
RESEARCH

SEP 25 2000

UT SAN ANTONIO

September 22, 2000

Robert J. Hard, Ph. D.
Center for Archeological Research
The University of Texas at San Antonio
San Antonio, TX 78285-0658

Re: Project review under the Antiquities Code of Texas, Antiquities Permit #2395, Testing at the Selma Stage Coach Stop Site, Draft Report (City of Selma)

Dear Dr. Hard:

Thank you for your correspondence concerning the above referenced project. This letter presents the comments of the Executive Director of the Texas Historical Commission, the state agency responsible for administering the Antiquities Code of Texas. We are in receipt of the Draft Report for Antiquities Permit #2395, and with the exception of the few warranted additions to the report discussed below, the report is acceptable.

Please add a historical background section to the report, that includes details on the Harrison & Brown Stage Line, and the role of the Selma station in the history of the stage line and its role in the history of the City of Selma. Please also integrate the state site survey number for this site into the text of the report, and amend Figure 3 so that the drawing of the station indicates the location of interior wall that has fundamentally collapsed, and indicate the location of any windows or other opening that are a part of the exterior walls.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. We will await receipt of the twenty final copies of the report with the above referenced changes, a completed copy of the THC Abstract in Texas Archeology Form, and a signed copy of the THC Curation Form. Thank you for your cooperation in this state review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions please contact Mark H. Denton, of our staff at (512) 463-5711.

Sincerely,

for

F. Lawrence Oaks
Executive Director

Enclosures: Abstract & Curation Forms

cc: Dave Cooney (City of Selma)

Appendix B

Cultural Materials Recovered from Shovel Tests

Table B-1. continued...

[illegible]

Table B-1. continued...

[illegible]

Table B-1. continued...

[illegible]

Appendix C

Chronological Indicators by Depth among Materials Recovered from Shovel Tests

Table C-1. Chronological Indicators by Depth among Materials Recovered from Shovel Tests at 41BX1409

ST	Depth (cm)	Soil Texture	Soil Type	Soil Color	% Gravels	Prehistoric?	Pre-1900	1900-1950	Modern	Other	Remarks
1	0-10	loose	sandy loam	4/2	<5	Flake	1 Nail, Glass		Glass, bullet	Bone, Mussel shell, Whiteware	
	10-20	loose	sandy loam	4/2	<5	Flake		2 Nails		Whiteware, Metal Scrap	
	20-30	loose	sandy loam	4/3	30						
	30-40	loose	sandy loam	4/3	40						
	40-50	loose	clay loam	4/4	15						
2	50-60	loose	clay loam	4/4	5						
	0-10	mulch	sandy loam	5/4	<5						
	10-20	mulch	sandy loam	5/3	<5						
	20-30	loose	sandy loam	5/3	5						
	30-40	loose	sandy loam	3/2	15						
3	40-50	loose	sandy loam	3/2	15						
	0-10	loose	sandy loam	4/4	<5					Whiteware	
	10-20	loose	sandy loam	4/3	<10			Glass		Brick, Lead glaze, Whiteware, Metal Scrap	
	20-30	loose	sandy loam	4/3	10	Flake	Glass			Mussel shell, Lantern glass	
	30-40	loose	sandy loam	4/3	<10	Flake	1 Nail, Glass	Glass		Mortar, (35 cm bs)	Construction spillover
4	40-50	loose	sandy loam	4/4	<10		Stoneware	1 Nail		Stoneware, Wagon wheel lock, Metal scrap, Charcoal	
	50-65	loose	sandy loam	3/3	30	Flake	Glass				
	0-10	loose	sandy loam	4/3	<5				Glass	Auto Parts	
	10-20	loose	sandy loam	4/3	5			1 Nail		Bone, Auto part, Wire	
	20-30	loose	sandy loam	4/4	5			2 Nails	Glass	Charcoal	Compacted in SE corner
5	30-40	loose	sandy loam	4/4	5	Flake	1 Nail, Glass	Glass		Bone, Metal scrap, Charcoal	
	40-50	loose	sandy loam	4/4	15						
	0-10	loose	sandy loam	4/4	5		1 Nail, Stoneware			Mortar, Stoneware	
	10-20	compact	sandy loam	5/4	20		5 Nails, Glass			Brick, Whiteware, Stove part	Compacted surface
	20-30	compact	silty loam	5/4	30					Bone, Metal scrap	
6	30-40	firm	silty loam	5/4	20						
	40-50	loose	sandy loam	5/4	15						
	0-10	loose	sandy loam	4/4	<5		Glass	1 Nail	Glass		Compacted surface (10 cm)
	10-20	compact	sandy loam	5/4	5	Flakes	5 Nails, Glass	Glass		Bone, Asphalt shingle, Metal scrap, Wire	
	20-30	firm	sandy loam	4/3	10	Point	5 Nails, Glass			Brick	
7	30-40	loose	loamy clay	4/3	10		Window glass	1 Nail			
	40-50	loose	loamy clay	4/3	5						
	0-10	loose	sandy loam	4/3	<5		Glass		Glass	Auto part, light bulb	
	10-20	loose	sandy loam	4/4	<5		Glass		Glass		
	20-30	firm	sandy loam	4/4	20		Glass				
8	30-40	firm	sandy loam	4/4	20						
	40-50	firm	sandy loam	4/4	20						
	0-10	loose	sandy loam	4/4	20						
	10-20	compact	sandy loam	3/2	<10	Flake		2 Nails	Glass	Metal scrap, Metal hasp	
	20-30	loose	sandy loam	4/4	<10		1 Nail, Window glass		Glass	Metal scrap, Knife blade, Whiteware	
8A	30-40	loose	silty loam	4/4	<10	Flakes					
	40-50	loose	silty loam	4/4	15						
	0-10	loose	silty loam	4/3	<5					Metal scrap, Whiteware	Stone wall (corner?)
	10-20	compact	sandy loam	4/4	<5					Charcoal	Compacted surface (18 cm)

Table C-1. continued...

ST	Depth (cm)	Soil Texture	Soil Type	Soil Color	% Gravels	Prehistoric?	Pre-1900	1900-1950	Modern	Other	Remarks
9	0-10	loose	sandy loam	3/3	<5				Window Glass		
	10-20	loose	sandy loam	3/3	<5	Flake	1 Nail, Glass			White ware	
	20-30	loose	sandy loam	3/3	5				Glass	Metal scrap, White ware	
	30-40	firm	sandy loam	3/3	5						
	40-50	firm	sandy loam	4/3	5					Metal scrap	
10	50-60	firm	sandy loam	4/3	5		1 Nail			Metal scrap, Light bulb	
	0-10	loose	sandy loam	4/3	<5				Glass		
	10-20	loose	sandy loam	4/3	<5						
	20-30	loose	sandy loam	4/3	<5		Glass	Glass		Metal scrap	
	30-40	loose	sandy loam	4/3	<10			1 Nail	Glass	Metal scrap	
11	40-50	loose	sandy loam	4/3	<10		1 Nail			Metal scrap, Wire	
	50-60	loose	sandy loam	4/3	<10						
	0-10	loose	sandy loam	4/3	<5				Glass		Compacted surface (18 cm)
	10-20	compact	sandy loam	4/3	<5						
	20-30	compact	sandy loam	4/4	<5	Flake	Glass	Glass		Metal scrap	
12	30-40	firm	sandy loam	4/4	<5		1 Nail	1 Nail, Stoneware		Metal scrap, White ware, Stoneware	
	40-50	loose	silty loam	5/2	<5	Flake	1 Nail			Metal scrap, Brick, Lead glaze, Charcoal	Ashy; Trash pit?
	50-60	loose	silty loam	5/2	<5						Ashy; Trash pit?
	0-10	loose	sandy loam	4/3	<5	Flake	Glass			Lead glaze	
	10-20	loose	sandy loam	4/3	<5	Flake			Glass	Lead glaze	
13	20-30	loose	sandy loam	4/3	<5			1 Nail	Glass	Bone, Bottle cap, Lead glaze, Undec. Clay, Metal scrap	
	30-40	loose	sandy loam	4/3	<5						
	40-50	loose	sandy loam	4/3	<5						
	0-10	loose	silty loam	5/3	40						Compacted surface (8 cm)
	10-20	compact	silty loam	5/3	10	Flakes					
14	20-30	firm	silty loam	5/3	10		Glass			Metal scrap, White ware	
	30-40	firm	silty loam	5/3	10	Flake	1 Nail			White ware	
	40-50	firm	silty loam	5/3	10		Glass				
	0-10	loose	sandy loam	4/4	10			Glass		White ware, Light bulb	
	10-20	firm	silty loam	3/3	10					Fence staple	
15	20-30	compact	sandy loam	3/3	10						Compacted surface (21 cm)
	30-40	firm	silty loam	3/3	15						
	40-50	loose	silty loam	3/3	15						
	0-10	loose	sandy loam	4/3	<5	Flake	1 Nail, Glass	Glass		Metal scrap, White ware, Stove part	
	10-20	firm	sandy loam	4/3	<5			Glass		White ware	
16	20-30	firm	sandy loam	4/4	20						
	30-40	loose	silty loam	5/2	20						
	40-50	loose	silty loam	5/3	40						Large cobbles
	0-10	loose	sandy loam	4/3	<5	Flake		Glass		Bone, Brick, Can key	
	10-20	loose	silty loam	4/3	20		Glass	Shell button		White ware	
17	20-30	loose	silty loam	4/3	<10						
	30-40	loose	silty loam	3/3	20						
	40-50	loose	silty loam	3/3	20					Lead glaze	
	0-10	firm	sandy loam	5/4	5						
	10-20	firm	sandy loam	5/4	5						
17	20-30	firm	sandy loam	5/2	10						Plow zone (25-30 cm)
	30-40	loose	sandy loam	5/2	15		1 Nail			Metal scrap, Bone	Charcoal flecks
	40-50	loose	sandy loam	4/2	15						

Table C-1. continued...

ST	Depth (cm)	Soil Texture	Soil Type	Soil Color	% Gravels	Prehistoric?	Pre-1900	1900-1950	Modern	Other	Remarks
18	0-10	loose	sandy loam	5/4	<5			Window glass		Whiteware, Spoon	Burned area
	10-20	loose	sandy loam	5/4	<5		2 Nails, Glass	Window glass		Whiteware, Sulphur chunks	Burned area
	20-30	loose	silty loam	4/4	10	Flake	Glass	1 Nail			-
	30-40	loose	silty loam	4/4	10						-
	40-50	loose	silty loam	4/4	<10				Window glass	Light bulb	-
19	0-10	loose	silty loam	5/1	<5	Flake		1 Nail	Glass	Bone, Clay tile, Auto glass, Wire	Burn pile
	10-20	loose	silty loam	5/1	<5		1 Nail		Glass	Metal scrap, Whiteware, Auto glass, slate	Burn pile
	20-30	loose	sandy loam	4/3	<5			1 Nail		Metal scrap, Plastic	
	30-40	loose	sandy loam	4/3	<5				Glass	Bone, Clay tile, Auto glass, Wire	
	40-50	loose	sandy loam	4/3	<5						
20	0-10	loose	sandy loam	5/2	<5					Whiteware	
	10-20	loose	sandy loam	4/4	<5		Edgeware				
	20-30	firm	sandy loam	4/4	<5		1 Nail				
	30-40	loose	silty loam	4/4	<5	Flake					
	40-50	loose	silty loam	4/4	<5						
21	0-10	loose	silty loam	4/4	<5				Glass	Whiteware, Styrofoam	
	10-20	loose	sandy loam	4/4	<5						
	20-30	loose	sandy loam	4/3	<5		Window glass	Glass		Iron scrap	
	30-40	firm	silty loam	4/3	<5						
	40-50	loose	sandy loam	4/3	<5						
22	0-10	loose	sandy loam	4/4	<10						
	10-20	loose	sandy loam	4/4	<5						
	20-30	firm	silty loam	4/4	<5			Window glass		Metal scrap	
	30-40	firm	silty loam	4/4	<5		Glass	Glass		Wire	
	40-50	firm	sandy loam	4/4	<5						
23	0-10	loose	sandy loam	5/2	<5						
	10-20	loose	sandy loam	4/4	<5						
	20-30	firm	sandy loam	4/4	<5		2 Nails			Bone	
	30-40	firm	sandy loam	4/4	15		Glass				
	40-50	loose	sandy loam	4/4	<5	Flakes					
24	0-10	loose	sandy loam	4/4	<5						
	10-20	loose	sandy loam	4/4	<5		Glass				
	20-30	loose	sandy loam	4/4	20		Glass				
	30-40	loose	sandy loam	4/4	15						
	40-50	loose	sandy loam	4/4	15		Glass				
25	0-10	loose	sandy loam	4/4	10					Whiteware	
	10-20	loose	sandy loam	4/3	<5			1 Nail			
	20-30	firm	sandy loam	4/4	10	Flake		Glass			
	30-40	firm	sandy loam	5/2	15			1 Nail			
	40-50	firm	sandy loam	5/2	20		Glass			Metal scrap	Loose @ 45 cm
26	0-10	loose	sandy loam	5/2	<5						
	10-20	loose	sandy loam	4/3	<5					Whiteware, Brick	
	20-30	firm	sandy loam	4/3	<5			Glass		Metal scrap	
	30-40	loose	silty loam	4/4	10						
	40-50	loose	silty loam	4/4	10						Cobbles

Table C-1. continued...

ST	Depth (cm)	Soil Texture	Soil Type	Soil Color	% Gravels	Prehistoric?	Pre-1900	1900-1950	Modern	Other	Remarks
27	0-10	loose	sandy loam	4/3	<5						
	10-20	firm	sandy loam	4/4	15	Flake					
	20-30	compact	sandy loam	4/4	15					Bone	
	30-40	firm	sandy loam	4/4	70					Bone	Dense gravel lens
	40-50	loose	sandy loam	4/4	70						Dense gravel lens
	0-10	loose	sandy loam	4/3	10		Glass				
	10-20	loose	sandy loam	4/3	10						
	20-30	loose	silty loam	4/3	10					Metal scrap	
28	30-40	loose	sandy loam	4/4	<5						
	40-50	loose	silty loam	4/4	<5						
	0-10	compact	sandy loam	5/2	20		1 nail		Glass	Metal scrap, Whiteware, Stove part	
	10-20	compact	sandy loam	4/4	30			1 Nail		Metal scrap	
29	20-30	compact	sandy loam	4/4	40						
	30-40	loose	sandy loam	4/3	<5						
	40-50	loose	sandy loam	4/3	<5	Flake					
	0-10	firm	sandy loam	4/4	<5				Glass		
30	10-20	firm	sandy loam	4/4	<5		4 Nails, Glass	1 Nail, Glass		Whiteware, Wire	Plow zone (30 cm)
	20-30	firm	sandy loam	4/4	<5						
	30-40	loose	sandy loam	4/4	<5						
	40-50	loose	sandy loam	4/4	<5						
31	0-10	compact	sandy loam	5/2	<5						
	10-20	compact	sandy loam	4/4	<5				Glass	Metal scrap, Plastic	
	20-30	compact	sandy loam	4/4	<5					Metal scrap, 22 shell	Plow zone (31 cm)
	30-40	loose	sandy loam	4/4	<5						
32	40-50	loose	sandy loam	4/3	<5						
	0-10	compact	sandy loam	5/2	<5						
	10-20	compact	sandy loam	4/4	<5						
	20-30	compact	sandy loam	4/4	<5			Window glass			Plow zone (30 cm)
33	30-40	firm	sandy loam	4/4	<5						
	40-50	firm	sandy loam	4/3	<5						
	0-10	firm	sandy loam	4/4	<5						
	10-20	firm	silty loam	4/4	<5						
34	20-30	firm	silty loam	4/4	<5		Glass				
	30-40	loose	silty loam	4/4	<5						
	40-50	loose	silty loam	4/4	<5						
	0-10	compact	silty loam	5/2	<5					Metal scrap, Undecorated clay	
35	10-20	compact	silty loam	5/2	<5						
	20-30	compact	silty loam	5/2	<5						
	30-40	loose	silty loam	4/4	<5			Glass			Plow zone (ca. 30 cm)
	40-50	loose	silty loam	4/4	<5						
35	0-10	firm	sandy loam	4/4	<5						
	10-20	firm	sandy loam	4/4	10	Flake					
	20-30	firm	sandy loam	4/4	<10	Flake					
	30-40	firm	sandy loam	4/4	5						
	40-50	firm	sandy loam	4/4	<5						

Table C-1. continued....

ST	Depth (cm)	Soil Texture	Soil Type	Soil Color	% Gravels	Prehistoric?	Pre-1900	1900-1950	Modern	Other	Remarks
36	0-10	compact	sandy loam	5/2	30						
	10-20	compact	sandy loam	4/4	15						
	20-30	firm	sandy loam	4/4	15						
	30-40	firm	sandy loam	4/4	20						
	40-50	loose	sandy loam	4/4	70						
37	0-10	loose	sandy loam	4/4	15			1 Nail, Glass			Cobbles
	10-20	loose	sandy loam	4/4	30						
	20-30	loose	sandy loam	4/4	<10	Flakes	Gunflint				
	30-40	loose	sandy loam	4/4	<10						
	40-50	loose	sandy loam	4/4	<5						
38	0-10	compact	sandy loam	5/2	<5				Glass		
	10-20	compact	sandy loam	5/1	<5						
	20-30	compact	sandy loam	5/1	<5						
	30-40	firm	sandy loam	4/3	<5						Plow zone (35 cm)
	40-50	firm	sandy loam	4/3	<5						

* Standard Munsell Color Chart