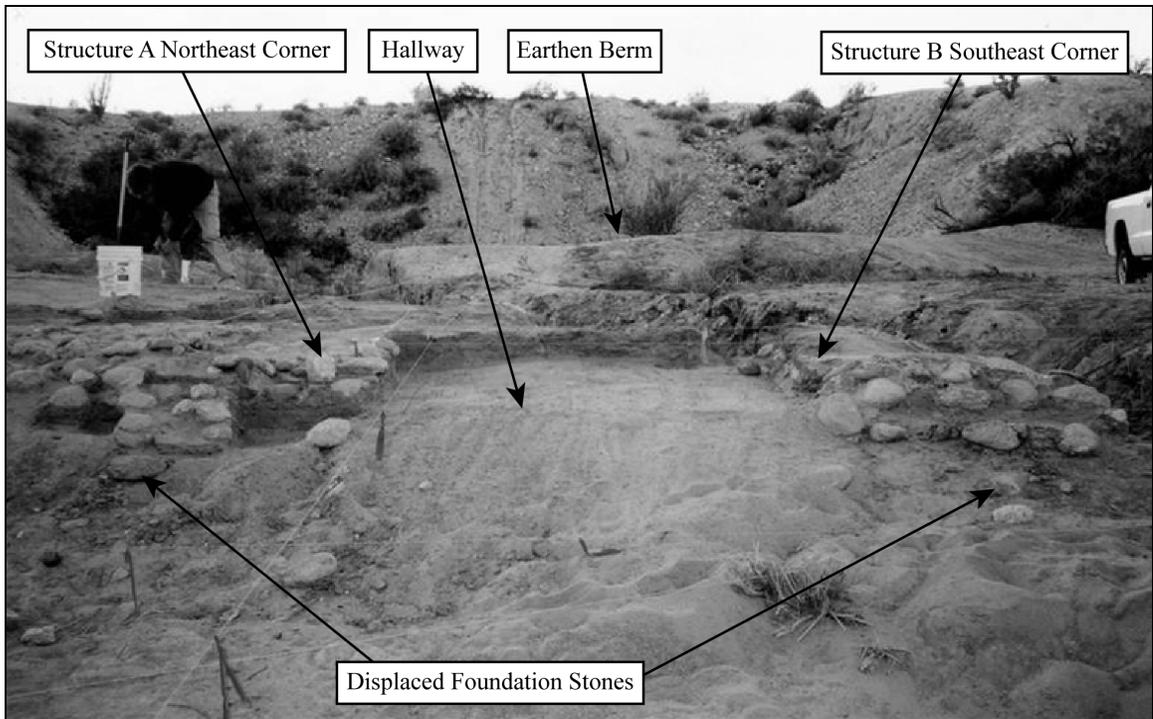
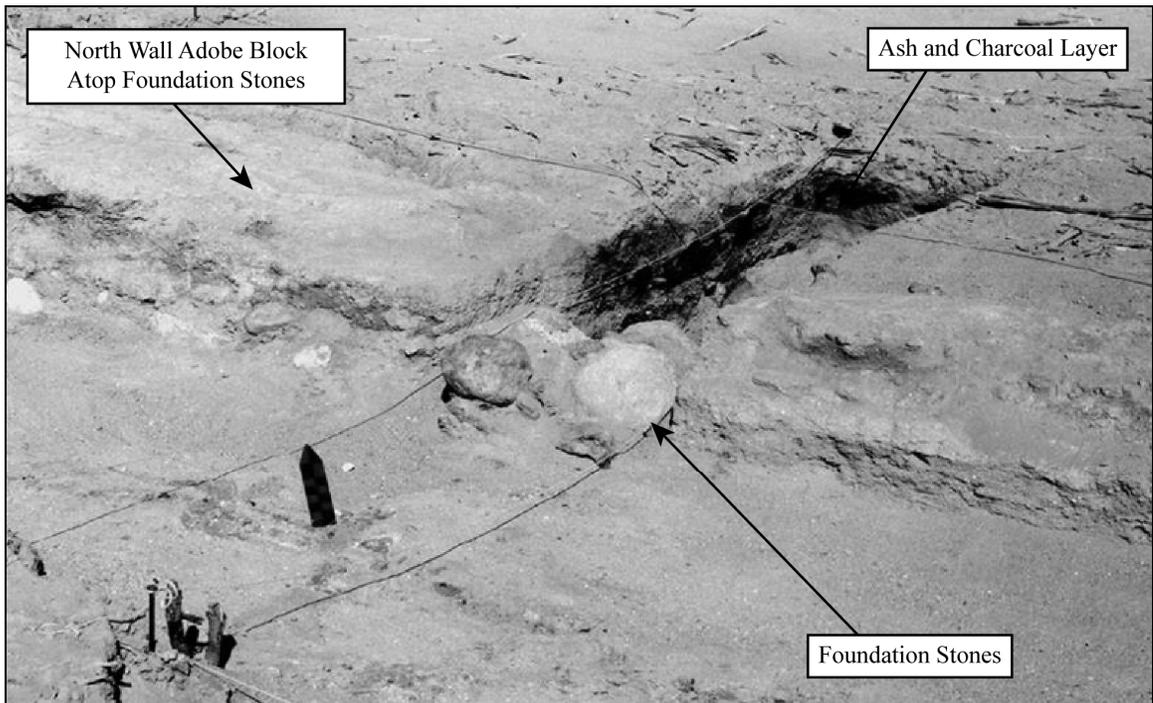


Figure 50. Hallway Plan View between Structure A and B.



(a) Hallway, 2002, view to north (by California State Parks).



(b) Structure B, Feature B1, 2002, view to northwest (by California State Parks).

Figure 51. Hallway and Structure B, Feature B1.

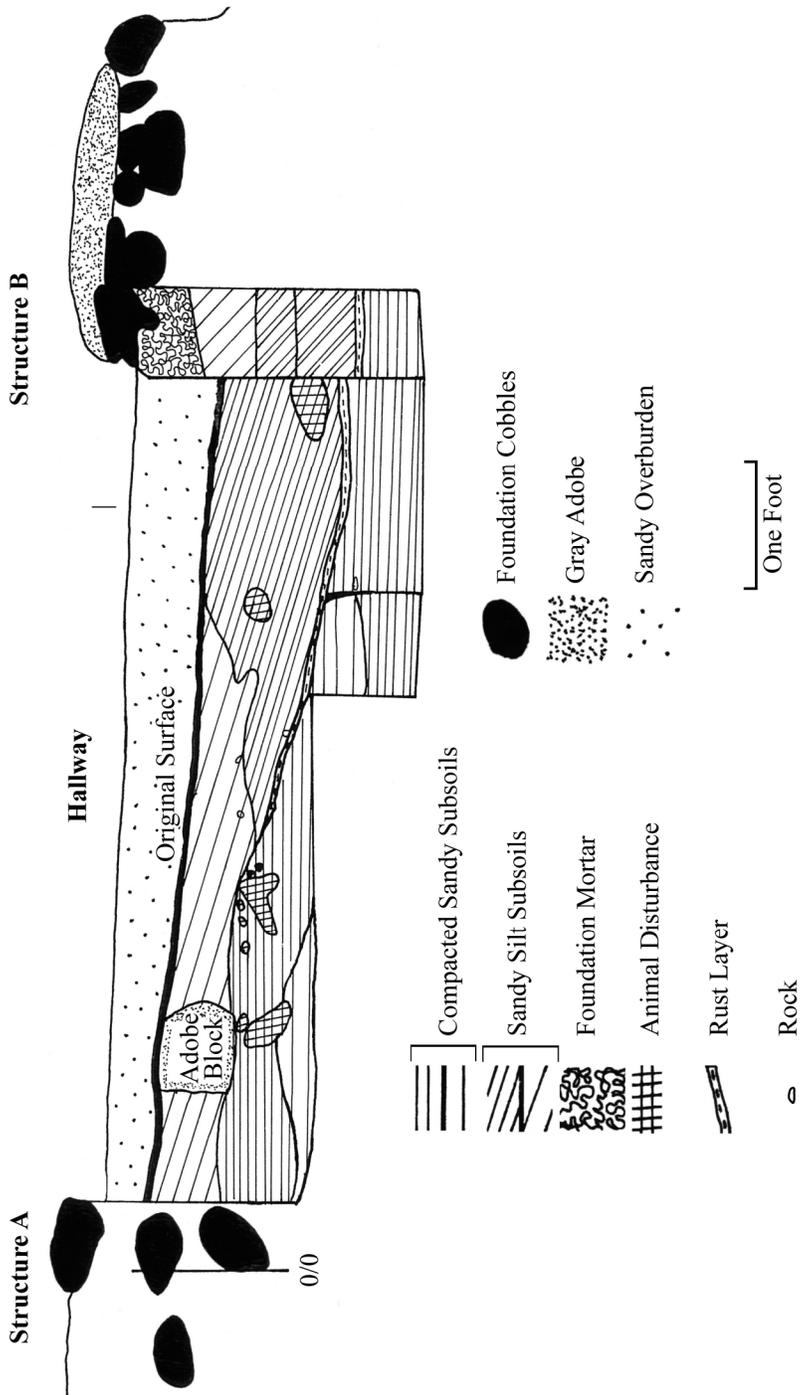


Figure 52. Hallway West Wall Profile of Units N6/E6 and N12/E6.

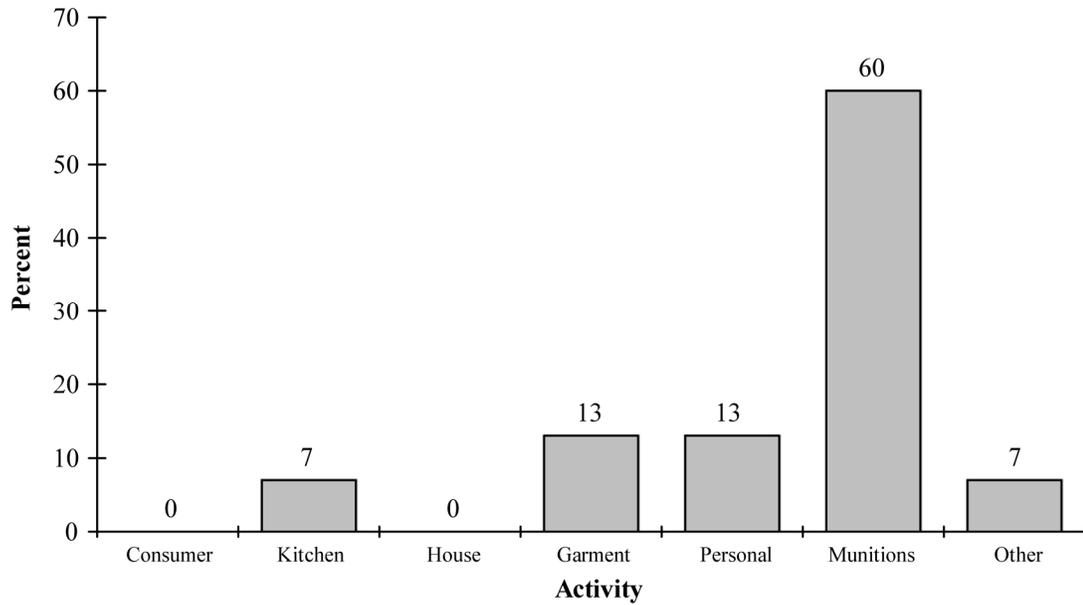


Figure 53. Hallway Activity Profile without Building Materials.

Table 14. Hallway Activity Profile.

ACTIVITY	QUANTITY	PERCENT
Munitions	9	18.00
Personal	2	4.00
Kitchen	1	2.00
Building	35	70.00
Garment	2	4.00
Unidentified Item	1	2.00
Total	50	100.00

Table 15. Hallway Activity Profile without Building Materials.

ACTIVITY	QUANTITY	PERCENT
Munitions	9	60.00
Personal	2	13.33
Garment	2	13.33
Unidentified Item	1	6.67
Kitchen	1	6.67
Total	15	100.00

## **Feature B1**

A dense, fine, dark brown ash layer around eight inches thick was encountered along the northern side of Structure B in Trenches B-1 and B-2 (see Figure 51b). No artifacts or other cultural material were recovered. The deposit represents something that burned against this side of the building, but no clues were encountered to identify its original nature.

## **Structure and Feature Summary**

In summary, the remains of three main structures and a number of distinct features were encountered. Structure A was a two-room, rectangular adobe building that measured 30 feet east-west, by 18 feet north-south. A single adobe block interior dividing wall separated the dwelling into two rooms. Excavation revealed remnant adobe wall segments, cobble foundation alignments, sections of articulated wall fall, and floors constructed of small cobble pavements covered with silty clay. The erosional gully cutting through the site had impacted the northwest corner of the Structure A ruin and completely destroyed about one-eighth of the building's remains. Artifact analysis suggested that the east room may have been a sleeping room where garments, personal belongings, and weapons were stored, while the west room may have served as a kitchen and dining room, where meals and beverages were prepared and consumed. These different activities explain the higher number of artifacts in the east room where a wider variety of items would have resulted in greater loss.

Like Structure A, Structure B was a rectangular building measuring approximately 30 feet north-south by 18 feet, east-west. There were no remains of interior divisions. Prior to excavation, Structure B consisted of an almost level terrace on the north side of the erosional gully. This is the area that had been graded by Buster McCain in 1958. Close to forty percent of what remained of the ruins, after Buster had flattened them, was later destroyed by erosion when the earthen dike overflowed. The channel took away most of the southern edge and east end of the building, leaving a small segment of the southeast corner isolated on its south bank, and the remaining portion of the building on the north side. Extremely shallow wall remains occurred at about 16 inches below the surface, resting on cobble foundations. A burned, packed earthen floor within the perimeter of the walls was found about 24 inches below the surface. Artifact analysis, along with a sooty, scorched earthen floor, and a small hearth designated Feature B5, reveal that this building was used as a kitchen, although garment items, personal items, and munitions show that other activities also occurred there.

The seven-foot-wide passageway between Structures A and B was formed when Structure B was constructed. Although largely destroyed by the erosional channel, approximately eight feet of the former hallway area was still intact on the south bank of the gully, at the eastern edge of the site. Excavation encountered the original compacted surface between the buildings under three to nine inches of a loose sandy overburden. A variety of artifacts were recovered on and above this surface including fragments of Native American pottery, percussion caps, a hard rubber comb, and square nails. Most notable were 195 grams of window glass, indicating that there was a window in one of the buildings at this location. No artifacts were recovered below the packed surface.

Structure C consisted of the remains of a wattle and daub building discovered underneath the floor of Structure B. Evidence included alignments of small ocotillo or willow stake post holes and two small cobblestone hearths.

Structure D included two rectangular alignments of adobe blocks encountered on the west side of Feature B2. These appeared as a thin lens of gray clay one to two inches thick and about 24 inches wide. The true nature of these remains has not been determined. They may represent the adobe corral that adjoined the station buildings that was observed by the Conklings in the 1920s.

Significant features located around the three main structures included A1, A2, B1, B2 and B4. Features A1 and A2 represented a small trash scatter on the west side of Structure A. Feature B1, a dense, fine, dark brown ash layer resembling disarticulated lengths of wood around eight inches thick, was encountered along the northern side of Structure B in Trenches B1 and B2. No artifacts or other cultural material were recovered. The deposit represents something that burned against this side of the building but no clues were encountered to identify its original nature. Feature B2 was a rectangular-shaped ash lens, approximately one inch thick that measured seven by 14 feet. It consisted of a thick, dark brown, wood ash that had an exceptionally high number of square nails and barley seeds. The feature seems to represent a wooden structure that was used for feed storage.

Feature B4 was a trash pit located six feet northwest of Structure A. This dump had originally extended further to the south and had been partially destroyed by the erosional channel bisecting the site. The deposit was 12 to 24 inches below the present ground surface and extended westward under the earthen dike built by Buster McCain, where it was covered by more than four feet of soil. Datable items from the feature are listed in Table 7. There are no introduction dates after 1857 and a variety of items that were not manufactured after 1860 and 1864. This would suggest a deposition date of the late 1850s or early 1860s and corresponds nicely with the operation dates of the Overland Mail from 1857 to 1861. A wide variety of cultural material was recovered, including large quantities of metal, butchered bone, ceramics, Native American pottery, munitions, garment items, and bottle glass.



# ***Chapter 7: Artifact Identification***

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## **INTRODUCTION**

A total of 39.972 kilograms of historical material was recovered from the excavation. Analysis resulted in the identification of an estimated minimum number of 2,266 items representing 14 of the 20 activity group categories listed in Table 2.

## **CONSUMER ITEMS**

Consumer items consist of packaged items purchased and consumed on a regular basis. Generally these include groceries, cosmetics, medicines, and beverages. Under most conditions consumer items found in archaeological deposits came in containers that do not deteriorate over time such as glass or ceramic bottles and jars, and in some instances, tin cans.

A total of 41 consumer items made up 1.81 percent of the collection. This activity group included remains of two tin cans and 39 glass and ceramic containers. The type and size of the cans could not be identified due to their fragmented condition. The products represented by the glass and ceramic containers are listed in Table 16 and discussed below. All are typical of bottles and jars used in the mid-nineteenth century prior to 1880. Most were broken and identification of individual items was made through an analysis of bases, necks, and embossed pieces.

### **Soda Water Bottles**

A single soda water bottle that held from 6 to 8 ounces was identified. This bottle was blown in a full height mold and had a blob top neck finish (Figure 54a).

### **Liquor Bottles**

A minimum of three ale or porter bottles were represented by bases that exhibited dome shaped kickups and necks with collar and ring lip finishes formed by shear style lipping tools. The bottles had been squat, cylindrical containers around eight to 12 inches in height and three to four inches in diameter, with flattened shoulders and long necks. Known as junk bottles, vessels of this type were commonly used for hop beverages such as ale, porter and beer, although they sometimes held such diverse products as wine, cider, and flavoring extracts. The bottle style was adopted in both England and the United States sometime between 1800 and 1815 and

Table 16. Bottled Products.

TYPE AND PRODUCT	PRODUCT		TYPE	
	COUNT	PERCENT	TOTAL	PERCENT
<b><i>Soft Drink</i></b>	-	-	1	2.56
Soda	1	100.00	-	-
<b><i>Liquor</i></b>	-	-	14	35.90
Absinthe	1	7.14	-	-
Ale - Junk Bottle	3	21.43	-	-
Champagne	1	7.14	-	-
Gin	3	21.43	-	-
Wine	1	7.14	-	-
Wine - Bordeaux	4	28.57	-	-
Wine - Hock, Rhine Wine	1	7.14	-	-
<b><i>Culinary</i></b>	-	-	13	33.33
Condiment	5	38.46	-	-
Condiment - Pickle Jar	3	23.08	-	-
Olive Oil	1	7.69	-	-
Pepper - Spice	3	23.08	-	-
Pepper Sauce	1	7.69	-	-
<b><i>Pharmaceutical</i></b>	-	-	1	2.56
Unidentified	1	100.00	-	-
<b><i>Household</i></b>	-	-	1	2.56
Ink	1	100.00	-	-
<b><i>Toiletry</i></b>	-	-	1	2.56
Tooth Paste	1	100.00	-	-
<b><i>Unidentified</i></b>	-	-	8	20.51
Total	-	-	39	100.00

remained popular through the middle of the nineteenth century (McKearin and Wilson 1978:215-217, 229-232; Switzer 1974:16-21). The bottles were manufactured in dip and three-piece molds. One exhibited the mark of a sand-coated pontil. The others lacked pontil marks suggesting the use of a snap case.

Eight wine bottles included Bordeaux, Champagne, and Hock - Rhine wine style vessels (Figure 55a). One container was too fragmented to identify a specific type. Based on examination of fragments, four Bordeaux and single Rhine Wine containers were blown in shoulder-height dip molds and have sheared necks with laid-on rings. One exhibited a sand pontil mark. A partial shoulder seal from one Bordeaux bottle was too small to be identified. The shoulder seal on a fifth Bordeaux-style bottle read "E. PERNOD A. COUVET," indicating it contained absinthe, a product of Switzerland (Schulz et al. 1980:33-34). The Champagne bottle base had a pontil mark and the neck was finished with a lipping tool.



(a) Soda Bottle, #944 (by Sam Webb, 2004).



(b) Spice Bottle, #961 (by Sam Webb, 2004).

Figure 54. Soda Bottle and Spice Bottle.

Three gin containers were identified (Figure 55b). Two were typical “case gin” bottles with flat, tapered sides and sharply rounded shoulders. They were blown in shoulder-height dip molds and had flat lip finishes formed with a lipping tool. Both bottles were embossed J. T. Daley Club House. This popular brand was manufactured in New York and sold from 1857 to 1885 (Schulz et al. 1980:25).

### Food Containers

A minimum of 13 food containers represented a limited range of products and container styles. Five condiment bottles, identified largely through fragments of wide mouth laid on ring “packer” style neck finishes, were the most common. Two cathedral-style jars were blown in two-piece molds. One had a blowpipe pontil mark. A variety of products were sold in these “packer” condiment and cathedral-style jars including horse radish, brandied fruit, pickles, mixed pickled vegetables and spices, honey, preserves and jellies, and tamarind fruit (Switzer 1974:44-56, 64, 66). Three octagonal, paneled pepper or spice bottles were manufactured in full-height, two-piece bottom-hinge molds with hand-finished lips (Figure 56a). One of these containers also had a blowpipe pontil mark. Fragments of a cathedral-style pepper sauce bottle manufactured in a full-height mold were also identified (Switzer 1974:57-60, 63).



(a) Wine Bottle Fragments, #5 and #1022 (by Sam Webb, 2004).



(b) Gin Bottle Fragments, #972 and #973 (by Sam Webb, 2004).

Figure 55. Wine Bottle and Gin Bottle Fragments.



*(a) Condiment Bottle Fragments, #964 (by Sam Webb, 2004).*



*(b) Tooth Powder Jar, #700 (by Sam Webb, 2004).*

Figure 56. Condiment Bottle Fragments and Tooth Powder Jar.

### **Pharmaceutical Bottles**

A clear rectangular pharmaceutical style paneled bottle with a hand finished lip was the only medicine container identified.

### **Toiletry Products Containers**

The single toiletry container consisted of a shallow, white, glazed earthenware toothpaste jar (see Figure 56b). The transfer printed identification proclaimed “SEVEN HIGHEST PREMIUMS / AWARDED / ALSO / A / PRIZE-MEDAL / AT THE / WORLD’S FAIR / LONDON 1851 / TO K. BAZIN. / PHILADELPHIA.

### **Household Products**

One “umbrella”-style inkbottle with a blow pipe pontil mark on the base was the only household product identified.

### **Unidentified Bottles**

Products for at least eight fragmented containers represented by side-panels and hand-finished lip fragments could not be identified.

## **KITCHEN ITEMS**

Kitchen items made up 2.69 percent (61 items) of the artifacts recovered. These consisted of articles used in food preparation, storage, serving, and consumption. Ceramic kitchen and tableware vessels, glass tableware, Native American pottery, table utensils, fruit pits, and 18.417 kilos of butchered bone were recovered. Ceramic kitchen and tableware objects were divided into two categories: serving vessels and table setting dishes, and utilitarian items. Analysis used the vessel typology developed by Worthy (1982). Decorative elements were analyzed for use in economic scaling calculations. Ceramic price scaling uses an indexed scale, based on cost relationships between types of decorative wares for a given time period to determine the relative value of a ceramic assemblage (Miller 1980).

Ceramic kitchen items and types identified are listed in Table 17 and Table 18. Glass tableware consisted of two fluted pressed glass tumblers (Figure 57a). Other kitchen remains included a teaspoon (Figure 57b), 15 grams of eggshell, four peach pits, a plum/prune pit, and two unidentified seeds. Discussions of decorated ceramic types, Native American pottery and the butchered bone are provided below.

### **European Ceramic Decorative Types**

European manufactured kitchen ceramics produced during the use of the Carrizo Stage Station exhibited a variety of styles that included undecorated items, and decorated forms including molded, hand painted, transfer printed, and Rockingham earthen wares, as well as porcelains. None of the ceramics in the assemblage appears to have been made in the United States.

A brief description of some of the earthenware pastes used to make ceramic pieces is appropriate here. Pearl ware is a white body with transparent glaze that has a distinctive bluish tint in parts where the glaze is applied thickly, as in molded parts or around a foot or rim. Pearl ware was available to the American market as late as 1865 “as a moderate-priced



*(a) Faceted Glass Tumbler Fragments, #975 (by Sam Webb, 2004).*



*(b) Teaspoon, #751 (by Sam Webb, 2004).*

Figure 57. Glass Tumbler Fragments and Teaspoon.

Table 17. Ceramic Serving Vessels.

ITEM	TYPE	COUNT
Lid To Mustard/Jelly Jar	Molded	1
Relish Dish	Molded	1
Tureen	Molded	1
Pitcher	Hand Painted	1
Pitcher	Rockingham	1
Lid To Sugar Bowl	Molded	1
Unidentified Flat Vessel	Hand Painted	1
Unidentified Hollow Item	Transfer-Flow Blue	1
Unidentified Hollow Vessel	Undecorated	1
Total		9

Table 18. Ceramic Tableware.

ITEM	TYPE	COUNT
Plate, Small	Hand Painted Floral Polychrome	1
Plate, Large	Undecorated	1
Plate, Large	Molded	4
Plate, Unknown Size	Transfer-Red	1
Soup Plate	Undecorated	1
Cup	Undecorated	1
Cup	Porcelain	1
Cup, No Handle	Hand Painted Floral Polychrome	5
Saucer	Undecorated	3
Saucer	Hand Painted Floral Polychrome	4
Saucer	Porcelain	1
Saucer/Bowl	Undecorated	1
Total		24

ware for ordinary use” (South 1977:212; Hume 1978:49, referenced by Felton and Schulz 1983:29). Felton and Schulz state that in their collection from the Diaz Adobe in Monterey “Many of the Diaz collection vessels demonstrate blue - tinted glaze over both decorated and undecorated bodies” (1983:29). In the Carrizo Stage Station collection only two items, a hand painted saucer and a pitcher, had this blue puddling. However, several decorated items had evidence of a bluish cast. This bluish cast is not the same as the blue puddling, according to Miller (Miller 2003).

Preceding pearl wares but also contemporaneous with it, was cream ware, which is distinguished by its transparent lead glaze with greenish yellow tint in the puddled areas. Note that pearl ware and cream ware pastes are present in both undecorated and decorated items described below.

### **Undecorated White ware**

Undecorated kitchenwares were prominent in the Carrizo collection. Plain, heavy pieces were often manufactured specifically for heavy usage, as expected in hotels and boarding houses. Eight undecorated kitchen items were found in the Carrizo assemblage, including one unidentified hollowware vessel, a large plate, a soup plate (Figure 58a), a teacup, and four saucers. None were marked.

### **Hand Painted**

Ten vessels were hand painted; all had some evidence of a bluish cast to the clear glaze, if not outright puddling. The most common pattern was found on five handleless teacups (one is complete and undamaged) and three saucers of thin earthenware (Figure 58a and Figure 59a). This consists of a sprigs style floral decoration, with red and blue four-petaled flowers and small buds that have black stems and bright green leaves. Another pattern is represented by one saucer decorated with dull olive green leaves. A third design is on a small plate; it has three-petaled red tulips with light green leaves. These two patterns may also be sprigs designs; however they were catalogued as hand-painted polychrome floral pieces, as they were not seen depicted in any of the references on sprigs designs. Also, there is a pitcher fragment that is trimmed with red lines accenting a molded design, and an unidentified flat vessel with red lines around the rim (Figure 60b). These two vessels possibly constitute serving pieces to one of the three patterns described above.

The term “Sprigs” refers to a specific style of design. There were varying patterns, all including floral or vegetal elements. The colors were applied over the clear glaze, as enamels, and were very hardy; they rarely seem to be worn off. This style of decoration was used on a variety of wares including fine, translucent porcelain, and various semi-porcelains. They are not marked. The period of use was from the early 1800s into the mid nineteenth century, and “finally went out of fashion” in 1860 (Wood 1959:29, 34, 88-89).

### **Molded Ironstone**

Molded ceramics became very popular in the mid-nineteenth century as a reaction to the brightly colored, transfer-decorated tablewares, that were prominent during the 1830s and 1840s. Utilizing simple shapes with molded surface decoration and no color, these gleaming white plates were eagerly bought and proudly used by American households (Wetherbee 1985).

The period of greatest popularity for molded wares extended from the 1840s through the early 1890s; gothic shapes were the first produced. During the 1860s and 1870s, floral and vegetation designs were in style, followed by rectangular shapes into the 1880s. The sales of molded “ironstone” decreased as a result of improvements in the production and, therefore, also the reduction in price, of porcelain (Bagdade and Bagdade 1991:160-161).

Carrizo Stage Station assemblage kitchen item molded wares included a lid to a mustard/jelly jar (Figure 59b), a tureen, a sugar bowl lid (Figure 59b), four large plates, and a relish dish. The relish dish and large plate exhibit a bluish cast to the glaze, and the lid has a greenish cast. The only item identifiable as to a pattern is the sugar bowl lid; it is named “Wheat”, and was produced by a manufacturer that is speculated to be Furnivals. Wheat was produced during the 1860s (Freeman 1954:22; Praetzellis et al. 1983:36; Wetherbee 1985:80).



(a) *Soup Plate Fragment, #710B (by Sam Webb, 2004).*



(b) *“Sprigs” Decorated Handleless Tea Cup, #727 (by Sam Webb, 2004).*

Figure 58. Soup Plate Fragment and Tea Cup.



(a) “Sprigs” Decorated Cup Rim, Cup Base, Saucer Fragments, #731, #739, #732A (by Sam Webb, 2004).



(b) Sugar Bowl Lid, Mustard Jelly Lid, #725 and #703 (by Sam Webb, 2004).

Figure 59. Cup, Saucer, and Sugar Bowl Fragments.



*(a) Molded Ironstone Saucer Fragments, #702A (by Sam Webb, 2004).*



*(b) Hand Painted and Rockingham Pitcher Fragments, #739A, #742, #740B, (by Sam Webb, 2004).*

Figure 60. Molded Ironstone Saucer and Rockingham Pitcher Fragments.

One plate was identified as the same design as was found in Old Town San Diego at the Aguirre Adobe. It has a round rim with an impressed pattern of concentric, slightly curved lines that originate at the edge of the rim and extend in about one half inch, with blue puddling in that area. In most plates of this pattern, the molded area is colored, generally cobalt blue, but sometimes green or yellow; and is commonly referred to by archaeologists as edge decorated, feather edge, or shell edge. This plate, like the ones from the Aguirre Adobe, is unusual in that it is plain white and does not have the added colored glaze over the molded edge pattern.

Edge decorated vessels were the least expensive and most common of all the decorated wares available in America and had a long period of usage, beginning with cream wares in the mid 1770s. Edge decorated wares continued to be manufactured as late as 1859 on pearl wares. These wares are rarely found in archaeological sites after 1870 (Miller and Hunter 1990).

### **Transfer Decorated**

Another major technological change during the late-eighteenth century was an innovation in surface decoration popularized by Spode, but quickly copied by many other successful manufacturers. The new technique is now called transfer printed ware. Initially, transfers were applied over the glaze, but by the first half of the nineteenth century, underglaze designs became tremendously popular. The inexpensive cost and ease of application enabled potters to decorate their vessels with elaborate patterns that could easily be applied by unskilled workers (Bagdade and Bagdade 1991:99-100). The process speeded up the production of decorated wares and allowed the English to begin selling them at even lower rates, further cementing their dominance of the ceramic market. Blue was the original color used in transfers, as it was initially the only color that could withstand the high temperatures of the kiln when the vessels were fired. Experimentation with other coloring agents later produced black, brown, green, lavender, mulberry, pink, purple, orange and red. The popular range of production for all colors spans from 1784 to 1895 (Samford 1997:20); however, transfer patterns are still being produced today.

Flow blue, a blurry form of transfer decoration, was initially developed by Wedgwood in the 1820s. Flow blue (and other flowing colors) was considered an appealing new way to produce transfers and went into and out of style. Early flow blue pieces were fashionable from 1835 into the 1850s, then reappeared from the 1860s for about a decade until the 1870s. The last period of popularity for flow blue was from the 1880s until about 1900 (Bagdade and Bagdade 1991:104-105). Another source notes two periods of popularity for flow blue from the 1840s and 1850s, then from the 1890s until about 1904 (Samford 1997:24).

Although extremely popular during the mid-nineteenth century, transfer wares were some of the least represented at the Carrizo Stage Station and included only a few sherds of a flow blue unidentified hollow vessel and one small rim piece of a red "Aladdin" pattern plate produced by John Ridgeway from 1830 to 1855 (Williams 1978:89; Snyder 1997:140).

### **Rockingham Ware**

The fragments of a single pitcher represent the only Rockingham ware vessel identified at the Carrizo Stage Station (see Figure 60b). It has a cream colored paste and a

partial molded design of grapes, berries, or hops. Rockingham ware has a very distinctive brown mottled appearance that was achieved by applying manganese to a clear glaze. Several methods, including sponging, dripping, splattering, or brushing were used to apply the pigment. Rockingham ware was particularly utilized for utilitarian kitchenware, serving pieces, and household items.

The earliest Rockingham ware was produced about 1785 in Yorkshire, England. It was named after the Marquis of Rockingham, who financially aided one of the major producers of this ware. As its popularity increased, other countries began to manufacture it. American Rockingham is believed to have started in New Jersey in the early 1820s. By 1835, nearly every large pottery was in production of Rockingham ware (Brewer 1996:10-11). Much, but not all, Rockingham was made with a yellow ware body; some was made with a stoneware base (Brewer 1996:8-9).

### **European Porcelain**

Porcelain originated in China. The Chinese, to maintain their dominance in the trade, kept the manufacturing formula secret. Eager to reproduce this lovely translucent ware, European ceramists experimented and England, by the mid-1700s, produced soft paste porcelain. Soft paste porcelain, though beautiful, was fragile. It was unable to hold hot liquids, for instance, pouring tea into a cup could crack it. New formulas resulted in a true hard-paste durable porcelain. Hard paste porcelains were developed elsewhere in Europe and were available to the consumer in America (Bagdade and Bagdade 1991:99-100).

A paneled cup and saucer were the only porcelain items from the Carrizo collection and probably represent a matched set. They are very heavy and probably were meant for the hotel ware trade.

### **Native American Items**

The Native American pottery sherds and ground stone were analyzed by archaeologist Sue Wade. The attribution of these items to the historic occupation of the site is somewhat complicated by the fact that a prehistoric site is located to the west on the mesa top above the stage station and that occasional prehistoric stone artifacts were also observed in the stage station site area. However, given that only one potsherd was observed at the prehistoric site on the mesa and that the majority of the pottery remains recovered during the stage station site excavations are large specimens of identifiable vessels associated with discrete features or structures in historic contexts, it is likely that only a few prehistoric sherds, at most, were incorporated into the historic site deposit during its construction and use. As well, the ground stone implements described below were directly associated with the two historic hearth features (C-1 and C-2) in Structure C. (This situation is in contrast to the random distribution across the site of a small collection of prehistoric flaked and water-worn ground stone artifacts recovered during the investigations.)

### ***Pottery***

A total of 1,038 grams of pottery (312 sherd fragments) was recovered. The total includes 41 grams (4.0%) from Structure A (37 grams from the east room and 4 grams from the west room), 152 grams (14.6%) from Trash Feature A1, 210 grams (20.2%) from Trash Pit Feature B4, 439 grams (42.3%) from Structure B, 151 grams (14.5%) from the Hallway, and 45 grams (4.3%) recovered from the erosional gully.

A minimum number of 19 vessels were identified in the sherd collection. This number was primarily defined by unique rim sherds representing individual vessels but several were also identified by a unique assemblage of body or base sherds. The vessel attributes and proveniences are described in Table 19.

As can be seen in Table 19, all identifiable vessels were open-mouthed pots, both vertical sided and moderately constricted. The vessel openings range nine to 14 centimeters radius (18 to 28 centimeters in diameter). Open-mouthed vessels such as these were desirable in early historic times in remote areas for use in cooking and serving (Wade 2004; Schaefer 1993). No storage vessels with highly constricted-openings, such as water ollas or seed jars, were recovered. Several discrete collections of very thick base or body sherds, having little curvature, were recovered. These may have functioned as platters, *comals* or other food preparation surfaces. Several vessels were purposefully discarded in trash areas: one burned vessel was discarded in Trash Feature A1, and two burned pots, a burned platter, and four unburned pots (two with painted decoration) were discarded in Trash Pit B4. One unidentified vessel was likely discarded into the Hallway. Others appear to have been broken and subsequently incorporated into the structure floor soils. One burned pot and one very thick-walled unidentified vessel were recovered from excavations in the east room of Structure A. Two burned vessels, five unburned vessels (two with painted rims and body), and one thick-walled vessel were recovered from Structure B, supporting the conclusion that this building was used as a kitchen.

Table 19. Recovered Native American Vessel Forms and Associated Data.

VESSEL	ITEM	CAT	UNIT	CONST	MAT	BURN
<b><i>Structure A – East Room (n=2)</i></b>						
1	Base Sherd, Very Thick	642.10	N00, W00	P&A	Salton Brown	None
2	Vertical-Sided Pot, Undeterminable Rim Radius	692.10	S12, W06	P&A	Tumco	Sooting
<b><i>Trash Feature A1 (n=1)</i></b>						
3	Body Sherds of one vessel	688.10	S06, W30	P&A	Colorado Buff	Sooting
<b><i>Trash Pit Feature B4 (n=7)</i></b>						
4	Vertical-Sided Pot, 9 cm Rim Radius, Thin Walled with wipe marks	649.11	N06, W36	99	Tumco	Sooting
5	Moderately-Constricted Pot, 11 cm Rim-Radius	650.31	N06, W36	P&A	Brown ware	Heavy Sooting
6	Vertical-Sided Pot, 14 cm Rim-Radius, High fire/no carbon core	656.10 699.10 699.11	N06, W42	P&A	Unidentified Buff	None
7	Vertical-Sided Pot, 10 cm Rim-Radius, Paint (Red) line on rim	815.10	N06, W42	97	Tumco	None
8	Body Sherds, Very Thick (platter?)	653.30	N06, W42	97	Unidentified Buff	Sooting
9	Vertical-Sided Pot, 9 cm Rim-Radius	643.30	N00, W42	P&A	Brown ware	None

Table 19. Recovered Native American Vessel Forms and Associated Data *continued*.

VESSEL	ITEM	CAT	UNIT	CONST	MAT	BURN
<b>Trash Pit Feature B4 (n=7) continued</b>						
10	Moderately-Constricted Pot, 14 cm Rim-Radius, Painted (Red Rim and Body, Black Rim)	654.10	N06, W42	P&A	Colorado Buff	None
<b>Structure B (n=8)</b>						
11	Undeterminable Form, Undeterminable Rim-Radius, Painted (Red) line on rim and remnants on exterior	651.11	N06, W36	P&A	Colorado Buff	None
12	Undeterminable Form, Undeterminable Rim-Radius, Painted (Red), line on rim similar to 651.11	797.11	N12, W30	P&A	Unidentified Buff	Sooting
13	Body Sherds, very thick walls	665.10 666.10	N18, W12	99	Brown ware	None
14	Body Sherds, Tumco, Stucco Coat exfoliated from burning	669.10	N18, W18	P&A	Tumco	Heavily Burned
15	Neckless Constricted Pot, Buff Clay, very eroded, Undeterminable Rim-Radius	673.10	N21, W18	P&A	Unidentified Buff	None
16	Body Sherds, Buff Clay, Very Coarse Inclusions	676.10	N24, W24	P&A	Unidentified Buff	None
17	Moderately Constricted Pot, Colorado Buff, 12 cm Rim Radius	677.11 678.11 695.10	N24, W30	P&A	Colorado Buff	None
18	Moderately Constricted Pot, Tumco, Undeterminable Rim-Radius sharp angle neck to rim	680.11	N33, W12	P&A	Tumco	Sooting
<b>Hallway (n=1)</b>						
19	Body Sherds, Unidentified Buff	646.11	N06, E00	P&A	Unidentified Buff	None

Although some evidence of burning was observable on the rim sherds as noted above, often evidence of burning is not evident on the upper portions of vessels used for cooking. It is also possible that sooting could occur on portions of vessels not used for cooking as the structure's roof burned on at least one occasion. Unburned sherds include those with no visible evidence of soot as well as those fire clouded during manufacture. Burned sherds include those with minor sooting to heavy soot deposit and crystallization. Table 20 identifies the percentages by weight of burned sherds in the total sherd assemblage.

The burning data would suggest that the Native American pottery discarded in the east room of Structure A and Trash Feature A1 was not used for cooking (because of the small proportion of burned sherds) but may have been affected by the structure roof fire. Proportions of other historic artifacts supported use of the east room of Structure A as a sleeping room. By contrast, the pottery discarded in Trash Feature B4 and Structure B is predominated by burning and attributable to cooking use.

The potsherds are constructed of a variety of clay materials typical for the region. The distribution is shown in Table 21.

Table 20. Native American Burned Sherd Data.

PROVENIENCE	SHERDS (WEIGHT IN GRAMS)	
	UNBURNED	BURNED
Structure A, East Room	33	4
Structure A, West Room	2	2
Trash Feature A1	99	53
Trash Feature B4	53	157
Structure B	205	234
Hallway	49	102
Gully	32	13
Totals (grams)	473	565
Percentages	46%	54%

Table 21. Native American Sherd Ware Type Data.

WARE	WEIGHT (G)	% TOTAL
Tizon Brown Ware	28	2.7
Lower Colorado Buff Ware	280	27.0
Salton Brown Ware	28	2.7
Salton Buff Ware	8	0.8
Tumco Buff Ware	55	5.3
Unidentified Buff Ware	489	47.0
Unidentified Ware	150	14.5
Total	1,038	100.0

The brown wares originate with residual clays derived from the Peninsular Mountains to the west. The buff wares originate with sedimentary clays from the immediately surrounding desert areas as well as the Colorado River region to the east. Typically, brown wares are more suitable for cooking uses while stucco coatings are applied to buff wares to increase their resiliency to heat. Indeed, one brown ware apparent cook pot in Trash Pit Feature B4 was heavily sooted. Six burned buff ware vessels were also present, one with heavily burned stucco coating. Interestingly, several Lower Colorado Buff Ware vessels were present in the assemblage, three with painted decorations (Figure 61a). Lower Colorado Buff Wares were produced in the latest prehistoric period and into historic times along the Colorado River (Kroeber 1955; Schaefer 1993; Wade 2004). It is likely that these four vessels were manufactured in the Lower Colorado region, sold or traded (perhaps with food contents) to desert travelers, and brought to the site via the Overland Trail. By far, however, the largest proportion of pottery sherds were constructed of unidentified buff clays, some fine-textured and some coarse. It is probable that some were manufactured on



(a) Colorado Buff Ware Painted Rim Fragments, #651, #654, #797, #815 (by Sam Webb, 2004).



(b) Stone Grinding Implements, #91 and #92 (by Sam Webb, 2004).

Figure 61. Painted Rim Fragments and Stone Grinding Tools.

site using locally available clays, perhaps by station master Mailland's Native American wife. Others may be associated with travel along the overland route, perhaps brought to the site as containers of other materials. It is also very likely, given the many travelers' reports of Native Americans traversing the area, that some were trade items or containers for trade items, bartered by the local Native Americans for European goods.

### ***Stone Grinding Implements***

Also indicative of Native American influence on the activities of the stage station, is the presence of two cooking hearth features and associated stone grinding implements in Structure B. Although the hearths contained historic artifacts, these types of hearth features are typical of Native American food preparation methods, as are the stone grinding implements (also known as manos) that were found in association. Each hearth, in addition to fire-affected cobbles, contained two grinding stones. The two in Feature C1 are large: one (2.243 kilograms) is a pestle with grinding on two sides and pounding damage on the ends and the second (1.522 kilograms) is shaped like a crescent with grinding on both flat sides. The pestle is made of locally-available quartz-diorite and the crescent-shaped implement is made of quartzite. The two manos in Feature C2 are smaller and are more typical of traditional prehistoric manos (see Figure 61b). The smaller mano is fashioned from the same quartz-diorite as the pestle in Feature C1 and shows only a small amount of grinding on the edges. The larger is a bifacial-ground mano made of granite. In addition to the manos stored at the hearths, three additional grinding stones were found at the site, one unifacial fragment in the hallway, one bifacial mano in Feature B4, and a unifacial mano fragment in the Feature B4 overburden. These types of grinding stones are typically used by the Native Americans of Southern California for processing seeds and grains into flour. At the stage station they may have been used to grind mesquite beans and other locally available seeds, to pound meat for cooking, or to grind grains imported to the site.

### **Butchered Bone**

The bone was analyzed by Susan Arter of the San Diego Natural History Museum. Bone debris included meat-bearing body elements as well as head and foot elements associated with butchering waste that resulted from the processing of both domestic and wild fauna at the stage station. Domesticated animals represent 39 percent of the identifiable fauna, although they constitute 95 percent of the bone debris by weight. They indicate a reliance on beef and lamb. It is well documented that large herds of these animals were constantly driven along the stage coach route (Brigandi 1995). Cattle provided the bulk of the meat, followed by sheep, and to a much lesser extent pigs and chickens. These animals were butchered on site with saws, cleavers, and knives according to both Euro-American and Mexican butchering traditions and culinary patterns.

Wild species represent 61 percent of the collection with a wide variety of animals including jackrabbits, cottontails, dabbling ducks, geese, storks, willets, and fish. Though minimal by weight, the quantity of specimens indicates the important dietary role that wild fauna played at the site. Jackrabbits and cottontails were probably hunted near the station. The remains of so many ducks and geese is surprising at this remote desert site. They were probably brought in from San Diego Bay and other coastal estuaries or from the Colorado River. It also could have been possible to procure them on the desert southeast of Carrizo Creek on wet years when there was water in the arroyos and small lake beds along the New River.

## HOUSEHOLD ITEMS

Household items constituted 0.22 percent (five items) by quantity of the assemblage. These artifacts include those things that are necessary for the daily maintenance of a household and included fragments of two oil or kerosene lamp chimneys, a writing slate, a pencil lead, and a straight sewing pin.

## GARMENT ITEMS

Garment items made up 3.57 percent (81 items) of the material recovered. This group consists of all the preserved evidence of clothing. Items identified are listed in Table 22 and included shoe parts; suspender hardware; ceramic, shell, and bone buttons (Figure 62a); corset stays and garter hardware (Figure 62b); and pieces of woven cotton fabric. Several items document the presence of women. These include a heavy hook and eye that probably fastened a corset, pieces of metal stays from two different corsets, and two brass shank buttons for women's outer wear garments. Other items, especially suspender hardware and fly buttons, represent the remains of men's working clothes.

Table 22. Garment Items.

ITEM AND TYPE	MATERIAL	ID	REFERENCE	SIZE	COUNT
<i>Hook From Hook and Eye</i>					
-	Brass	-	-	L=13/16" W=5/8"	1
<i>Shoe/Boot Hardware</i>					
Lacing Hook	Ferrous	-	-	-	1
<i>Shoe/Boot Leather</i>					
-	Leather	-	-	Fragment	1
<i>Shoe/Boot Part</i>					
-	Leather	-	-	Fragment	1
-	Leather	-	-	Fragment	1
Eyelet	Brass	-	-	D=1/4"	1
Eyelet	Brass	-	-	D=1/4"	1
Eyelet	Brass	-	-	D=1/4"	2
Eyelets and Shoe Hook	Brass, Ferrous	-	-	Eyelet D=3/8" and D=1/4"	4
Insole Fragment	Rubber	-	-	Fragment	1
Lacing Hook	Ferrous	-	-	Fragment	1
Reinforcement	Leather	-	Grimm 1970:110	Fragment	1
Shoe Hooks	Ferrous	-	-	-	2
Snap	Brass	-	-	D=7/16"	1
Eyelet and Shoe Hook	Brass	-	-	Eyelet D=3/8"	2

Table 22. Garment Items *continued*.

ITEM AND TYPE	MATERIAL	ID	REFERENCE	SIZE	COUNT
<b><i>Suspender Hardware</i></b>					
-	Ferrous	-	-	Fragment	1
-	Brass	-	-	L=1 1/2";W=7/8"	1
-	Ferrous	-	-	Fragment	2
-	Brass	-	-	Fragment	1
-	Ferrous	-	-	Fragment	1
-	Ferrous	-	-	Fragment	1
-	Ferrous	-	-	Fragment	1
<b><i>Button</i></b>					
2 Hole	Bone	-	-	D=1/2"	1
2 Hole	Glass	-	Preciado 2002	D=7/16"	1
2 Hole	Shell	-	-	D=9/16"	1
2 Hole	Shell	-	-	D=3/8"	2
2 Hole	Shell	-	-	D=@9/16"	1
4 Hole	Ceramic	-	-	D=@3/8"	1
4 Hole	Ceramic	-	-	D=@1/2"	1
4 Hole	Ceramic	-	-	D=7/16"	1
4 Hole	Shell	-	-	D=@11/16"	1
4 Hole	Ferrous	-	-	D=9/16"	1
4 Hole	Ceramic	-	-	D=@1/2"	1
4 Hole	Shell	-	-	D=1/2"	1
4 Hole	Unidentified	-	-	Oval L=11/16";@W=5/8"	2
4 Hole	Ceramic	-	-	D=7/16"	1
4 Hole	Bone	-	-	D=11/16"	1
4 Hole	Bone	-	-	D=1/2"	1
4 Hole	Ceramic	-	-	D=3/8"	1
4 Hole	Ceramic	-	-	D=7/16"	1
4 Hole	Ceramic	-	-	D=7/16"	2
4 Hole	Shell	-	-	D=3/8"	1
4 Hole	Shell	-	-	D=3/8"	1
5 Hole	Bone	-	-	D=5/8"	2
5 Hole	Bone	-	-	D=5/8"	1
Shank	Brass	-	-	D=3/4"	1
Shank	Ferrous	-	-	D=9/16"	1
Shank, Metal Add On	Brass, Ferrous	-	Preciado 2002	D=1 3/8"	1
Shank, Metal Add On	Brass	-	Preciado 2002	D=1 1/4"	1
Shank, Metal Add On	Brass, Ferrous	-	-	D=1 7/16"	1
Fly	Ferrous	-	-	D=9/16"	2
Fly	Ferrous	-	-	D=5/8"	4

Table 22. Garment Items *continued*.

ITEM AND TYPE	MATERIAL	ID	REFERENCE	SIZE	COUNT
<b>Button continued</b>					
Fly/Jeans Button	Brass	*	-	D=11/16"	3
Fly/Jeans Button	Brass, Ferrous	-	-	D=3/4"	2
Fly/Jeans Button	Brass, Ferrous	-	-	D=11/16"	1
<b>Collar Button</b>					
-	Brass	-	-	Fragment D=5/16"	1
-	Shell	-	-	Oval L=1/2;W=3/8"	1
<b>Corset Stay</b>					
-	Ferrous	-	-	W=3/8 And W=1/4"	2
-	Ferrous	-	-	W=3/8"	1
<b>Garter Hardware</b>					
-	Brass	-	Preciado 2002	Fragment	1
<b>Scrap of Fabric</b>					
Woven Cotton	Fabric	-	Preciado 2002	Scrap	1
Woven Cotton	Fabric	-	Preciado 2002	Scrap	1
Total					81

Notes: \* "The / Boss / Union Made"; Embossed on Upper Surface.

## PERSONAL ITEMS

Personal items are defined as the possessions of a specific individual. These artifacts made up 1.72 percent (39 items) of the historic material recovered. The artifacts are listed in Table 23 and represent a wide variety of articles including four bone and hard rubber hair combs; an eye glass lens; two wood and pewter lace making bobbins; 17 collected mineral specimens of petrified wood, black tourmaline, chalcedony, and "desert rose" crystals; a straight razor; a bone tooth brush; a hard rubber tooth pick, and one bone and ten clay smoking pipes (Figure 63 and Figure 64a).

## MUNITIONS AND ARMS

Munitions and arms made up 4.81 percent (109 items) of the artifact collection and were the most numerous single type of artifact except for building materials (Table 24). These items represented muzzle loading arms in widespread use in the mid-nineteenth century. The most common articles identified were 89 percussion caps that included sizes for both hand guns (#10) and rifles (#11). Three gun flints attest to the continued use of flint lock arms in the area through the 1860s. Projectiles included .38 caliber and .45 caliber lead round balls (Figure 64b). The former were common sizes for percussion revolvers, while the .45 caliber ball could have been used for a revolver or rifle. Two rifle barrel segments were identified; one represented a double barreled weapon (Figure 65a).



(a) Buttons, Milk Glass, Bone, Hard Rubber, Brass Shank, #510, #525, #535, #522 (by Sam Webb, 2004).



(b) Corset Stays, Garter Clasp, #558, #559, #546 (by Sam Webb, 2004).

Figure 62. Buttons and Garment Fasteners.



(a) Combs (Bone, Hard Rubber), Toothbrush Handle, #497, #496, #494 (by Sam Webb, 2004).



(b) Lace-Making Bobbins, Straight Pin, #483, #484, #460 (by Sam Webb, 2004).

Figure 63. Combs, Bobbins, and Straight Pin.



(a) Clay Pipes, #490, #488A, #492, #786, #485, 788B, 788A (by Sam Webb, 2004).



(b) Gun Flints, Percussion Caps, Civil War Mini Ball, Buckshots, 30-Caliber Lead Balls, 44/45 Caliber Lead Ball, #450, #87, #86, #47, #64, #76, #73, #74, (by Sam Webb, 2004).

Figure 64. Clay Pipes and Munitions.

Table 23. Personal Items.

ITEM AND TYPE	MATERIAL	TECHNOLOGY	PATTERN	SIZE	COUNT
<b>Comb</b>					
-	Hard Rubber	-	Black	Segment 1 5/16" In Length	1
Fine Tooth	Bone	-	-	Fragment	1
Lice Comb	Bone	-	Undecorated	Segment 1 5/16" In Length	1
<b>Comb Tooth</b>					
-	Hard Rubber	-	Black	Fragment	1
<b>Eyeglass Lens</b>					
-	Glass	-	-	Fragment	1
<b>Lace Making Bobbin</b>					
For Making Bobbin Lace	Pewter **	-	-	Broken L=1/2"; D=3/16"	1
For Making Bobbin Lace	Wood **	-	-	Broken L=1 7/8"; D=3/16"	1
<b>Mineral Specimen</b>					
Collected Item	Petrified Wood	-	-	-	8
Collected Item	Desert Rose	-	-	-	1
Collected Item	Petrified Wood	-	-	-	1
Collected Item	Coarse Granite	-	-	-	3
Collected Item	Black Tourmaline W Schist	-	-	-	1
Collected Item	Desert Rose	-	-	-	1
Collected Item	Desert Rose	-	-	-	1
<b>Rock Specimen</b>					
-	Chalcedony	-	-	-	1
<b>Smoking Pipe</b>					
-	Bone	-	-	Fragment	1
-	Ceramic	-	Molded Circular Designs Near Rim	D=1"	1
Red Clay	Ceramic	-	-	Fragment	1
Rockingham Glaze	Ceramic	-	-	Fragment	1
Threaded Inside	Wood	-	-	D=1";H=9/16"	1
<b>Smoking Pipe Bowl Fragment</b>					
Clay Pipe	Ceramic	-	Unglazed White Clay	Fragment	1
Clay Pipe	Ceramic	Molded	Clear Glazed Red Clay	Exterior D=1"	1

Table 23. Personal Items *continued*.

ITEM AND TYPE	MATERIAL	TECHNOLOGY	PATTERN	SIZE	COUNT
<b><i>Smoking Pipe Bowl Fragment continued</i></b>					
Clay Pipe	Ceramic	Molded	Unglazed Red Clay	Exterior D=1"	1
Clay Pipe	Ceramic	Molded	Unglazed Black Clay	Exterior D=1"; and 1/2"	1
Clay Pipe	Ceramic	Molded	Clear Glazed Red Clay	Exterior D=3/4"	1
<b><i>Smoking Pipe Stem Fragment</i></b>					
Clay Pipe	Ceramic	White Clay	-	Broken L= 1 5/8"	1
Clay Pipe	Ceramic	-	White Clay	Broken L= 3/4"	1
<b><i>Straight Razor</i></b>					
-	Brass, Ferrous, Bone, Wood	-	-	L=@4";W=@3/4"; Th=@7/16"	1
<b><i>Toothbrush</i></b>					
-	Bone *	-	-	Broken L=4 /16"; W=9/16";Th=1/4"	1
<b><i>Toothpick</i></b>					
Reusable	Hard Rubber	-	Black	Broken L=1 1/4"; W=3/16";Th=1/16"	1
Total					39

Notes: \* ID: "Schapper & Roberts / Philadelphia"; Also "L" Inside A 6 Pointed Star; Cut or Impressed into the Handle. \*\* Reference: Thompson 1997:106-108.

The munitions recovered from the ruins of the Carrizo Stage Station represent a change in arms technology that had occurred during the early nineteenth century. Since the mid-1600s, pistols and rifles had used a flintlock ignition system. At its most basic, a flintlock fires when the trigger is pulled and the hammer strikes a stone piece against a steel plate called a frizen, causing sparks to fall on a charge of gunpowder, which ignites and shoots the gun. During the early nineteenth century, the flintlock began to be replaced by the percussion lock. Rather than depend on flint striking steel to achieve ignition, this device used a small hollow brass cap coated on the interior with a fulminating powder made of chlorate of potash, sulfur, and charcoal, which exploded by concussion. The cap was placed over a small tube or nipple on the side of the gun barrel. The hammer of the lock struck the cap causing an explosion which fired the gun. Opinions vary as to the actual date and inventor of the percussion cap. The Rev. A. J. Forsythe is credited with a patent for the fulminating powder in 1807. Some authorities say that the actual cap was invented in 1814 by Joshua Shaw although not actually patented until 1823. In the 1820s the percussion system began to replace the flint lock on civilian arms. They were not adopted by the military until the 1840s.

Table 24. Munitions.

ITEM	MATERIAL	SIZE	COUNT	COMMENTS
Buck Shot	Lead	No. 3	6	Buckshot for percussion or shot shell
Buck Shot	Lead	No. 00	1	For percussion or shot shell
Buck Shot	Lead	No. 0	2	No. "0" buckshot - shotgun for quail or duck hunting use
Gun Flint	Flint	L=1,3/16" W=3/4" Th=5/16"	1	Coca Cola brown color; translucent; probably for a large pistol or a rifle
Gun Flint	Flint	L=1,1/8"; W1,1/8" Th=1/4"	1	Complete; military musket size - Harper's Ferry example - used in War of Independence up until Civil War
Gun Flint Fragment	Flint	Fragment	1	Not large enough for identification
Lead Round Ball	Lead	.38 Caliber	1	Has been fired
Lead Round Ball	Lead	.45 Caliber	1	Round ball for pistol/rifle percussion
Lead Round Ball	Lead	.38 Caliber	1	Used by various percussion revolvers
Melted Lead Scrap	Lead	-	2	-
Mini Ball	Lead	-	1	Mini ball – cal. - .460 gr. Typical principal of Civil War projectiles in muzzle loaders; U.S. Springfield
Percussion Cap Fragments	Brass	-	89	Large and small for rifles and revolvers
Double Barrel Rifle Gun Barrel	Ferrous	Fragments	1	Item Cat #399 A and B; It is too thick to be a double barrel shot gun
Single Barrel Rifle Gun Barrel	Ferrous	Fragment	1	This gun has a narrower bore than 399 A and B
Total			109	

The efficient ignition provided by the percussion cap led to other improvements in firearms; two of the most significant were the revolver and breach loading rifle. In 1836 Samuel Colt obtained the first patent for his famous revolver, which relied on percussion ignition. In 1847 the .44 caliber Colt "Walker" model was issued to the Army Dragoons, which was the first military use of this weapon. This was replaced a year later by the .44 First Model Dragoon. The most popular arm for military and civilian use was the .36 "Navy" revolver first issued in 1851. During this same period, experiments in breach loading weapons had been successful and, in 1859, Sharp issued its famous breech loading rifle.

This gun was loaded from the rear of the barrel with a paper cartridge and used a percussion ignition system. The Colt revolver and Sharps rifle greatly increased the available fire power over more traditional muzzle loading guns of the mid nineteenth century. They were so effective that the San Antonio–San Diego Mail Line management recommended that each passenger "should provide himself with a Sharp's rifle, (not carbine) with accoutrements and one hundred cartridges, a navy sized Colts revolver and two pounds of balls" (*San Diego Herald* 11-21-1857).



*(a) Double Barrel Rifle Fragment, #399A (by Sam Webb, 2004).*



*(b) Burned Roof Thatch and Support Poles, #587 (by Sam Webb, 2004).*

Figure 65. Rifle and Thatch Fragments.

## BUILDING MATERIALS

Building materials made up 76 percent (1,731 items) of the collection. Items identified are listed in Table 25. A majority of the material represented highly fragmented items such as lumber, un-milled wood scraps, and roof thatching (Figure 65b) that could only be quantified by weight. The bulk of the building materials consisted of 577 grams of square nail fragments. Examination of a sample determined that the average nail weighed 3 grams. Numbers were determined by dividing the total weight by three, resulting in an estimated number of 1730 square nails. Sixty-eight percent by weight (3,561 grams) and estimated number (1,187) were recovered from the Feature B4 trash deposit. This suggests the burning of significant quantities of recycled material for fuel. The source for this large quantity of scrap wood in such an isolated environment is unclear.

Table 25. Identified Building Materials.

ITEM	TYPE	QUANTITY	WEIGHT
Window Glass	Plain	0	201
Lumber		0	41
Nail	Round	1	2
Nails	Square	1,730	5,192
Roof Thatching	-	0	4
Burned Roof Thatching		0	84
Window Screening	-	0	1
Wood Fragments		0	158
Total		1,731	5,683

## LIVERY

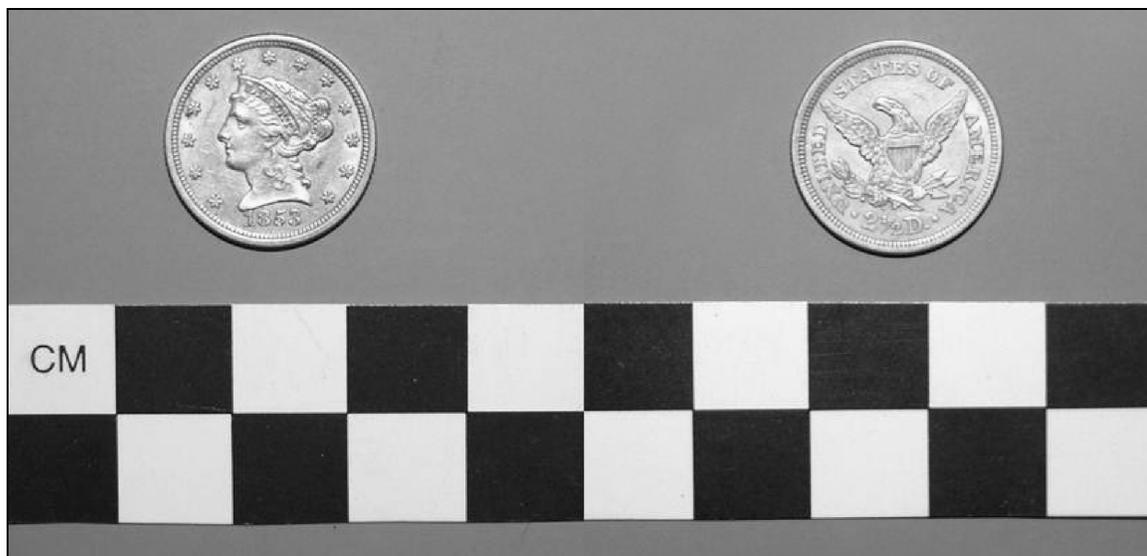
Livery items are used for the working, maintenance, and care of horses. Although historic documentation indicates that this was one of the basic activities occurring at the station, these artifacts made up only 0.44 percent of the collection. They included pieces of three horseshoes, three harness buckles, and three harness rivets (Figure 66a). The small number of livery items is undoubtedly the result of the fact that excavation encountered mostly domestic refuse pits and activity areas. With the exception of Feature B2, and the small adobe block remnants of Structure D, stable-related areas were not found. In the mid-1920s, historian Roscoe Conkling described ruins of a 50-x-60-foot corral adjoining the station building remains. This area may have been destroyed when Buster McCain graded the site and constructed the earthen dike in 1958.

## HARDWARE

Hardware made up 0.49 percent (11 items) of the collection. This group includes miscellaneous hardware that does not fit within the other defined groups. A variety of items were identified and are listed in Table 26.



(a) Horseshoe, Harness Buckles, #448, #442, #444 (by Sam Webb, 2004).



(b) Quarter Eagle 1853, #239 (by Sam Webb, 2004).

Figure 66. Horseshoe and Quarter Eagle Coin.

Table 26. Hardware.

ITEM	QUANTITY	WEIGHT
Banding/Strapping	1	2,636
Bolt	1	7
Bolts	3	145
Bracket	1	5
Cable	1	51
Clip	1	1
Ferrule for Small Paint Brush	1	1
Gasket	1	48
Handle	1	46
Hardware Cloth	1	12
Rods	2	23
T Brace	1	3
Wire	0	115
Total	15	3,093

## COINAGE

Coinage includes money, tokens, and other coins. Two were recovered and included an 1853 two and a half dollar “Quarter Eagle” gold piece (see Figure 66b), and a hammered silver coin that was too mutilated to identify.

## SPECIAL OCCUPATION

The special occupation activity group includes artifacts related to a specific profession or job. The Carrizo Stage Station produced military items, mining items, and grain used in animal husbandry.

### Military

Three military items made up 0.13 percent of the collection. They include a brass reinforcement end to the ribbon of a military uniform and pieces of two different brass epaulets (Figure 67a) of the type common on dragoon uniforms in the 1850s and 1860s (Steffen 1978:43).

### Mining

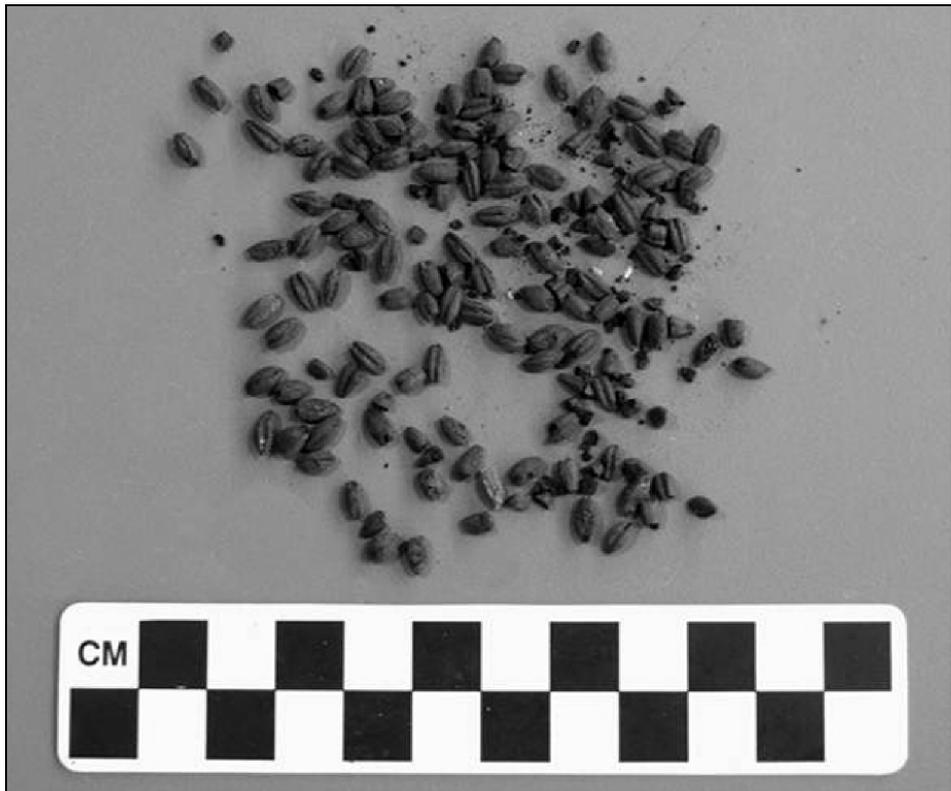
A fragment of an assay crucible made up 0.04 percent of the collection.

### Animal Husbandry

One hundred forty-four grains of barley were recovered from the Feature B2 ash lens (Figure 67b).



*(a) Brass Epaulets, #762C and #762B (by Sam Webb, 2004).*



*(b) Charred Barley Seeds, #792 (by Sam Webb, 2004).*

Figure 67. Epaulets and Charred Barley Seeds.

## UNIDENTIFIED

Unidentified items constituted two percent (26 items) of the artifacts recovered. They are listed and described in Table 27.

Table 27. Unidentified Items.

MATERIAL AND ITEM	SIZE	COUNT	WEIGHT	COMMENTS
<b>Bone</b>				
Bone Covering For Handle	Fragment	1	1	-
<b>Brass</b>				
Brass Rivet, Strip and Aglet	Fragment	1	11	May be parts of more than one item
Brass Rivets/Knobs and Plate	Plate L=2 1/2" W=1 1/4"	1	24	Plate is an elongated diamond shape, and slightly curved
Unidentified Brass Item	L=1/2" D=3/16"	1	1	-
<b>Lead</b>				
Sheet Lead	L=5" W=@4"	1	62	Indented oval shape is the right size for inside a buckle
<b>Ferrous</b>				
Unidentified Ferrous Item	D=1"	1	7	Item is round and flattened; broken in half
Unidentified Ferrous Item	Fragment; W=1 5/8" Th=5/8"	1	331	Seems to be a long heavy bar w 1 side flat, the other possibly curved.
Unidentified Ferrous Item	Fragment; Th=5/8"	1	41	Fragment of item
Unidentified Ferrous Item	D=1"	1	6	Looks like a link to a chain pulled apart where the ends join
Unidentified Ferrous Item	L=2 3/4" W=1 9/16" Th=3/8"	1	39	Item is flat; shaped obtuse triangle w opposite ends squared off (has 5 flat edges)
Unidentified Ferrous Item	Fragment	1	64	-
Unidentified Ferrous Item	Fragment	1	663	Made of sheet iron, fragmented, possibly a container
Unidentified Ferrous Item	L=2 5/8" W=2" Th=1/2"	1	58	Shape is acute angle triangle; flat
Unidentified Ferrous Item	Fragment; Circular Or Oval	1	124	Looks like a flat lid with a turned down edge 2 1/2"
Unidentified Ferrous Item	Fragment	1	13	Bar fragment w broken off extensions
Unidentified Ferrous Item	L=4 5/8" W=2 1/4" Th=9/16"	1	110	Item is roughly right triangle in shape but long edge is curved. Item is flat but bent into a slight curve. Apex corner broken off.

Table 27. Unidentified Items *continued*.

MATERIAL AND ITEM	SIZE	COUNT	WEIGHT	COMMENTS
<b><i>Ferrous continued</i></b>				
Unidentified Ferrous Item	Fragment	1	28	Item has at least 1 blade and pivot point; it may be a pair of scissors
Unidentified Ferrous Item	Fragment	1	284	Highly fragmented large iron pieces
Unidentified Ferrous Item	L=26 1/4" D=5/16"	1	48	Made of bar iron bent at right angle in middle, w small, forged, flattened "feet" at ends to insert into other item. May be a handle
Unidentified Ferrous Item	D=3 1/2"	1	84	Highly fragmented large iron ring
Unidentified Ferrous Item	Fragment; W=1 1/4"	1	24	Ferrous bar/strap w a forged pin pivot point
Unidentified Ferrous Item	Fragment	1	221	Large chunks, fragmented, shaped w legs, bar, and enclosed area
Unidentified Ferrous Item	D=8"	1	188	Possibly a lid to a container; has reinforced edge
<b><i>Unidentified Material</i></b>				
Unidentified Item	Fragment	1	2	-
<b><i>Lead</i></b>				
Unidentified Lead Item	Fragment	1	1	Looks like a curled lead shaving
Total		25	2,435	



# *Chapter 8:*

## *Data Synthesis and Interpretations*

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### **INTRODUCTION**

This section will synthesize historical and archaeological data to examine site function and evolution, the architectural methods and traditions represented by the building remains, and the ethnic, social, and economic influences affecting the occupants of the Carrizo Creek Stage Station.

### **SITE FUNCTION AND EVOLUTION**

Stratigraphic, architectural, and functional artifact analysis have provided data to determine the sequence of construction phases represented by the archaeological features at the Carrizo Creek Stage Station site. The earliest building was Structure A, constructed in June 1855, by the Army and used in September 1857, by I. C. Woods as a major change station for the San Antonio and San Diego Mail. It is assumed that all subsequent changes occurred between this time and when the Butterfield Overland Mail ceased to operate in 1861. Although occupation of the building is documented through at least the mid-1870s, the few existing descriptions consider it to be in a run-down and neglected state. It seems most likely that the investments in infrastructure provided by the Butterfield company account for subsequent construction at the station.

Shortly after overland mail service began, Feature B4 was used as a trash dump. It was then covered over and a feed bin was constructed at Feature B2 and probably an adobe corral at Structure D. At some point the feed bin burned. Following this, a wattle and daub kitchen structure was built on the north side of the adobe station at Structure C. This functioned as an outdoor kitchen. Finally, this was replaced with an adobe building, Structure B, that also served as a kitchen. A wooden feature was built on the north side of this adobe, which later burned at the location of Feature B1.

### **ARCHITECTURAL ASSESSMENT**

The Carrizo Stage Station combined elements of traditional architecture commonly found in Northern Mexico and specifically in the desert regions of Sonora and Baja California. This method of building derived from a combination of Spanish Colonial and Native American styles that evolved as Hispanics adapted to the desert. It was the architecture of a

people who, for generations, had lived as desert dwellers (Garrison 1990; Sheridan 1986:12). The Carrizo Stage Station reflects vernacular Sonoran architectural traditions in almost all of its construction aspects.

### **Adobe Dwellings**

Traditional Sonoran adobe structures maximized the use of earth throughout the building. Adobe walls 18 to 24 inches thick were built in shallow trenches on the bare earth or on small cobble foundations. These had small door openings framed with wooden lintels and floors of packed earth or stone or adobe pavers. Some had no windows; those that did were small and often unglazed. Flat roofs were covered over with a thatch of branches supported by mesquite poles. This was often topped with packed earth or mud. However, in some cases, especially over kitchen areas, the thatch was not covered. Walls were plastered inside and out with mud and sometimes white washed with lime. In extremely arid regions they were sometimes left unplastered (Garrison 1990; Gleye et. al. 1981:127-35; Delgado and Wade 1978).

### **Jacal Dwellings**

*Jacal* structures (*jacales*) are traditionally thatched-roofed buildings made of wattle (branches and twigs) overlaid with a daub (clay or mud) plaster. In northern Mexico, *jacales* were built in a variety of ways. In one method, the outline of the building was formed with 6-to-8 inch diameter mesquite or cottonwood posts placed in the ground approximately six to eight feet apart. These principal posts had a Y-shaped notch at the top, which carried horizontally-placed poles that supported the roof. Smaller 3-to-5-inch diameter support posts were placed approximately two to three feet apart between the principal posts. Willow branches, horizontally split saguaro ribs, reeds, or ocotillo branches were interlaced or woven between the secondary posts to form latticed walls.

The roof supports were covered with mesquite poles that were in turn covered with smaller sticks or cane two to three inches in diameter and capped with a layer of grass or straw and a layer of mud. Doorway and window sills occasionally had milled lumber frames, but many times did not. Cloth or woven cane mats often served for door and window coverings (Fay 1955, 1969; Lopez Morales 1987:223-224).

Another method of *jacal* construction varied in its wall framing. Instead of using interwoven wall material, horizontally placed poles one to two inches in diameter were attached at two-foot intervals to the inside and outside of the support posts. Ocotillo or willow stakes were then placed vertically between the poles with their ends embedded into the ground (Lopez Morales 1987; Fay 1958). *Jacal* structures included not only those that were plastered with mud to form substantial dwellings, but also many that were left undaubed (as wattle only), which were used as exterior kitchens and outbuildings for adobe and rock walled houses.

### **Carrizo Stage Station Buildings**

The Carrizo Stage Station construction conforms to traditional methods used in Northern Mexico during the eighteenth and nineteenth centuries. The buildings were made of local materials found on site. Essentially Structures A and B were small, thatched roof adobe buildings with packed earthen floors. The 24-inch-wide adobe walls were supported by shallow cobblestone foundations. The thatch roof consisted of a framework of poles

“thrown” across the tops of the walls and covered with a layer of sticks and grass. This is confirmed in descriptions as well as by the roof fall remains found in the east room of Structure A. Although the exact configuration of the wattle and daub building represented by Structure C cannot be determined, its building methods, with a tight row of willow or ocotillo stakes placed in a narrow trench, very closely resembles the second described method of *jacal* construction.

## ARTIFACT DATA SYNTHESIS

Artifactual data synthesis will consist of summarizing and interpreting analytical attributes of the artifact assemblage that give indications of the ethnic and economic influences manifested by the population it represents. Much of the interpretation is based on cross-site comparison of quantified artifact patterns developed from the Carrizo Stage Station collection with the same types of information developed from other household sites dating circa 1860 through 1880. The synthesis consists of functional artifact patterning analysis, bottled product consumption pattern analysis, dietary analysis, and economic analysis.

### Activity Profiles

Activities represented at the site by the artifact assemblage were determined by development of activity profiles. As explained in the methodology sections, artifacts were divided into functional categories or groups. Artifacts in each group were then quantified by the estimated minimum number of individual items represented and the amount converted into a percent of the total weight or number of artifacts for each deposit. The resulting percentages for each activity group defines relationships between activities that occurred on the site and allows the detection of broad patterned regularities related to site function.

The activity profile for the Carrizo Creek Stage Station is presented in Table 28. It is dominated by building materials, consisting largely of square nails, at 76 percent. In Table 29 and Figure 68 the profile is shown after building materials have been deleted so that the values of other artifact classes can be more easily interpreted. It is now dominated by animal husbandry and munitions at 27 and 20 percent, followed by garment at 15 percent and kitchen and consumer items at 11 and eight percent respectively. The domination of the assemblage by animal husbandry results from the large number of barley seeds recovered from Feature B2. It reflects the historically documented role of Carrizo as a swing station to change and care for mule and horse teams used by the San Antonio and San Diego and Butterfield stages. In Figure 69 animal husbandry has been taken out and the values recalculated. Munitions now dominate the assemblage, reflecting the need for personal defense as well as hunting at this isolated outpost in a wild and uninhabited frontier. The following passages from the San Antonio and San Diego Mail journal of Phocion R. Way bear repeating here:

There are a good many border men living here and they are decidedly a hard looking set. They are generally fine specimens of the physical man but the life they lead is of constant danger and makes them bold and reckless. They seem to place no value on human life, and apparently think no more of shooting a man that offends them than they would of shooting a horse or dog.... Every man, no matter what his business goes well armed at all times. [Way 1858:44]

Everybody goes armed here. If a man has no shirt to his back he will have his knife in his belt. [Way 1858:159]

Clearly a culture that emphasized the use of firearms, as observed by Phocion Way on the eastern portions of the Overland Mail route, was also the convention at the Carrizo Stage Station.

Table 28. Site Activity Profile.

Activity	Quantity	Percent
Consumer	41	1.81
Livery	10	0.44
Munitions	109	4.81
Personal	39	1.72
Military	3	0.13
Mining	1	0.04
Kitchen	61	2.69
Building	1,731	76.39
Coins	2	0.09
Garment	81	3.57
Hardware	11	0.49
Household	5	0.22
Unidentified	26	1.24
Animal Husbandry	144	6.35
Total	2,264	100.00

Table 29. Site Activity Profile without Building Materials.

Activity	Quantity	Percent
Consumer	41	7.69
Livery	10	1.88
Munitions	109	20.45
Personal	39	7.32
Military	3	0.56
Mining	1	0.19
Kitchen	61	11.44
Coins	2	0.38
Garment	81	15.20
Hardware	11	2.06
Household	5	0.94
Unidentified	26	4.88
Animal Husbandry	144	27.02
Total	533	100.00

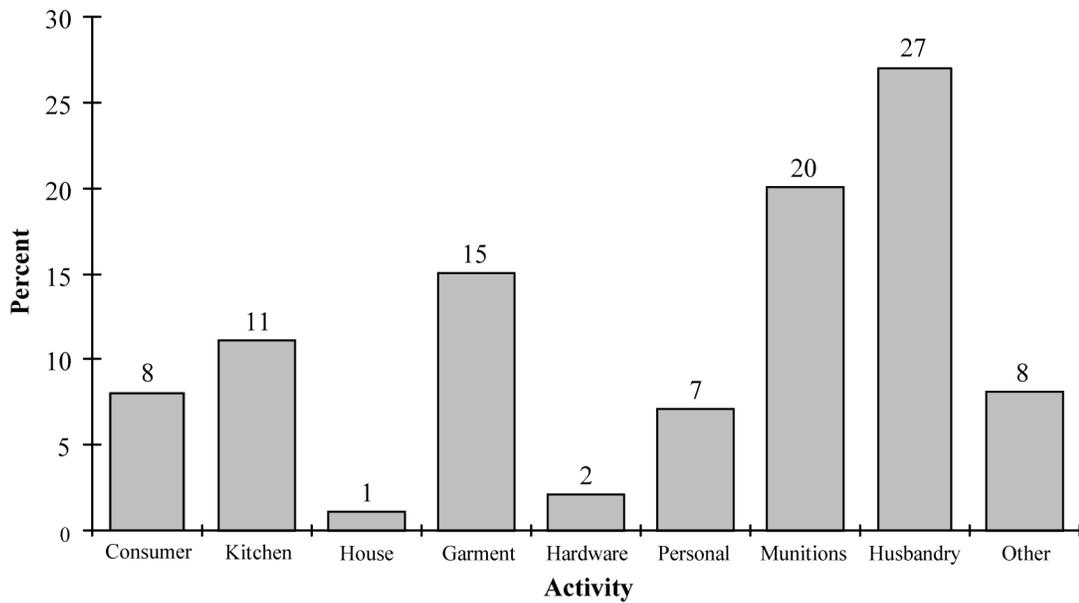


Figure 68. Site Activity Profile.

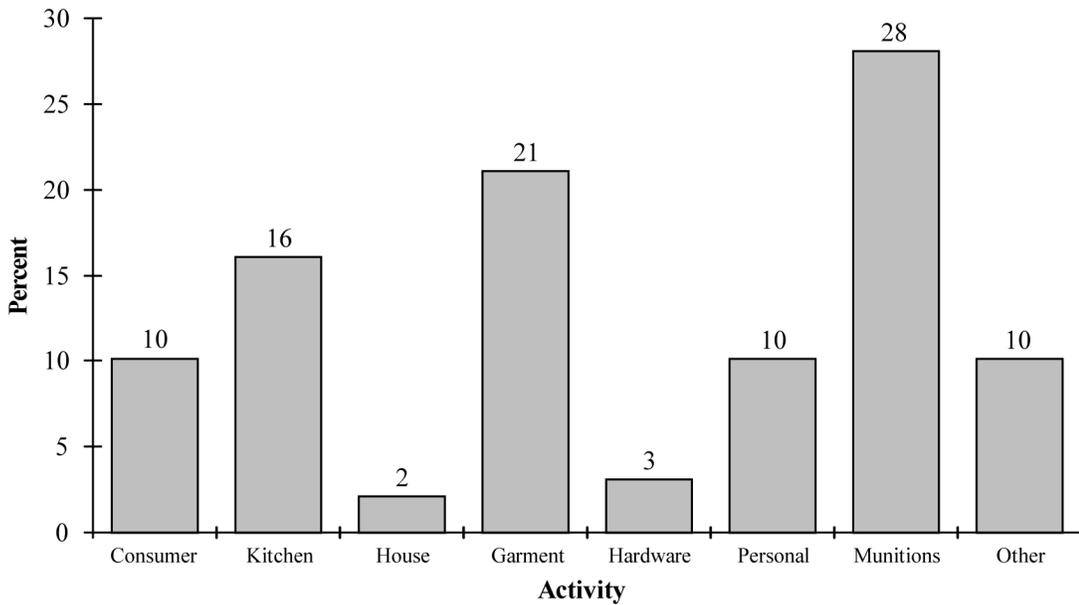


Figure 69. Site Activity Profile without Animal Husbandry.

**Cross-Site Artifact Profiles**

The activity profile of the Carrizo Stage Station was compared to profiles of assemblages representing households dating circa 1860 through the 1880s. Few examples exist of Southern California assemblages that date from the 1860s. The only reports that could be located are the Diaz Adobe privy in Monterey (Felton and Schulz 1983) and the Aguirre Adobe in Old Town San Diego (Phillips et al. 2001). An 1880s assemblage from the Pio Pico Adobe in Whittier, California, was also used (Van Wormer 1983b). Artifactual

material from these excavations was also quantified according to the methods previously described.

The activity profiles of these sites are compared to the Carrizo collection in Figure 70 and Figure 71. The stage station assemblage stands out from the other sites in several aspects. It is the lowest in consumer and kitchen items, which are both near 10 percent. The collection, on the other hand, is the highest in animal husbandry and munitions at 27 and 20 percent. Munitions values for the other sites are ten percent or less and animal husbandry is not represented. This analysis shows the unique environment of the Stage Station. As already stated, its primary function (to care for horses and mules) is reflected in the dominance of the assemblage by animal husbandry. Other aspects of the Carrizo pattern reflect its isolated environment.

All of the other sites are on the coast and the Pio Pico assemblage dates to the period after the transcontinental railroad had been completed. Supplies were much more readily available for these households, resulting in higher consumer and kitchen item values. In contrast, Carrizo had to be supplied overland. Its isolated location on an unsettled and dangerous frontier required an increased emphasis on weapons for personal protection as well as hunting. The situation of difficult supply lines and an increased need for fire arms is reflected in the decreased percentages of consumer and kitchen items and the high value for munitions.

### **Consumer Analysis**

Relative frequencies of beverage bottles from the Carrizo Stage Station assemblage were compared to the other assemblages in Figure 72. Although soft drinks are included, more than 95 percent of the beverage containers from all the sites were liquor bottles. At 38 percent, the Carrizo assemblage beverage bottle value is lower than that of the Aguirre household at 60 percent, but comparable to the Diaz and Pio Pico collections at 40 percent. As previously discussed, the liquor bottles included ale or porter, wine and gin containers. These products would have come overland from either San Diego or Los Angeles.

### **Dietary Analysis**

A cross-site comparison of culinary bottles is shown in Figure 73. The Carrizo assemblage is compared to collections representing Latin American and southern European as well as Anglo-American populations. In addition to the Diaz, Pio Pico and Aguirre collections, comparisons were also made to some other late-nineteenth and early-twentieth century sites representing specific ethnic groups. These assemblages include refuse from the foundation units of the Encino Roadhouse, the Encino Roadhouse Features 1 and 3, and household refuse deposits from Santa Ana, California. The Encino foundation units and Santa Ana represent Anglo American culinary traditions (Van Wormer 1983a; Elliott 1985). The other sites represent southern European and Hispanic populations. The roadhouse features are from a Basque population, while the Pio Pico and Diaz adobes were occupied by Mexican Californio families (Van Wormer 1983a, 1983b; Felton and Schulz 1983).

The Hispanic–Southern European assemblages are high in percentages of pepper sauce, spice, and olive oil and exhibit a distinct lack of other culinary products (Van Wormer 1983a, 1983b).

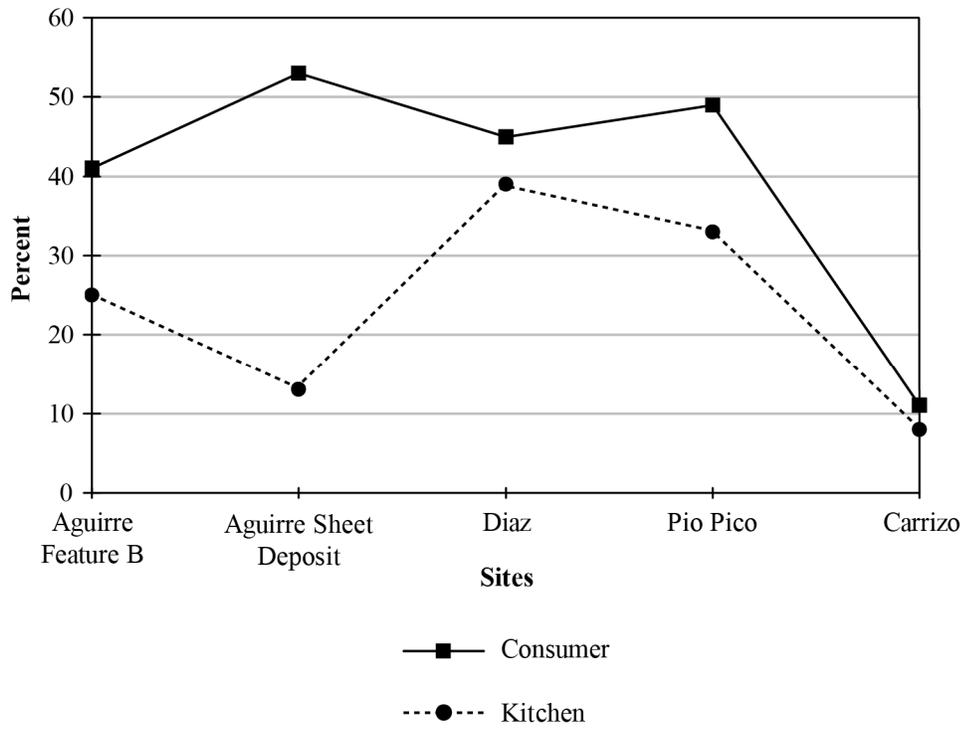


Figure 70. Cross-Site Activity Profiles (Consumer and Kitchen).

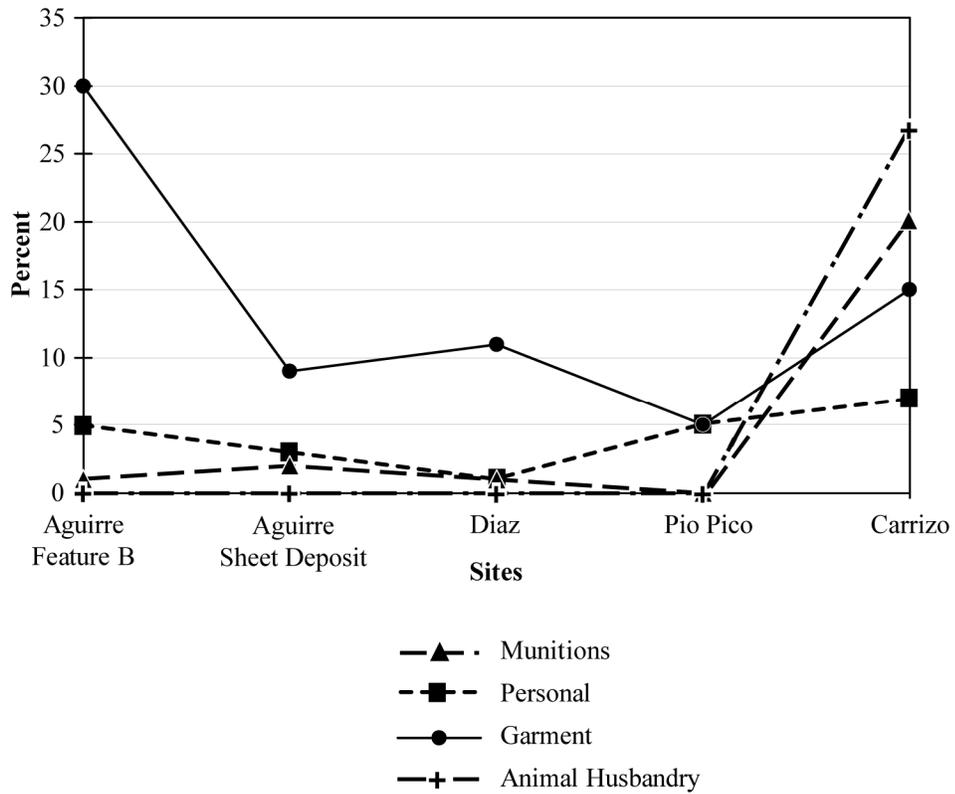


Figure 71. Cross-Site Activity Profiles (Munitions, Garment, Personal, and Husbandry).

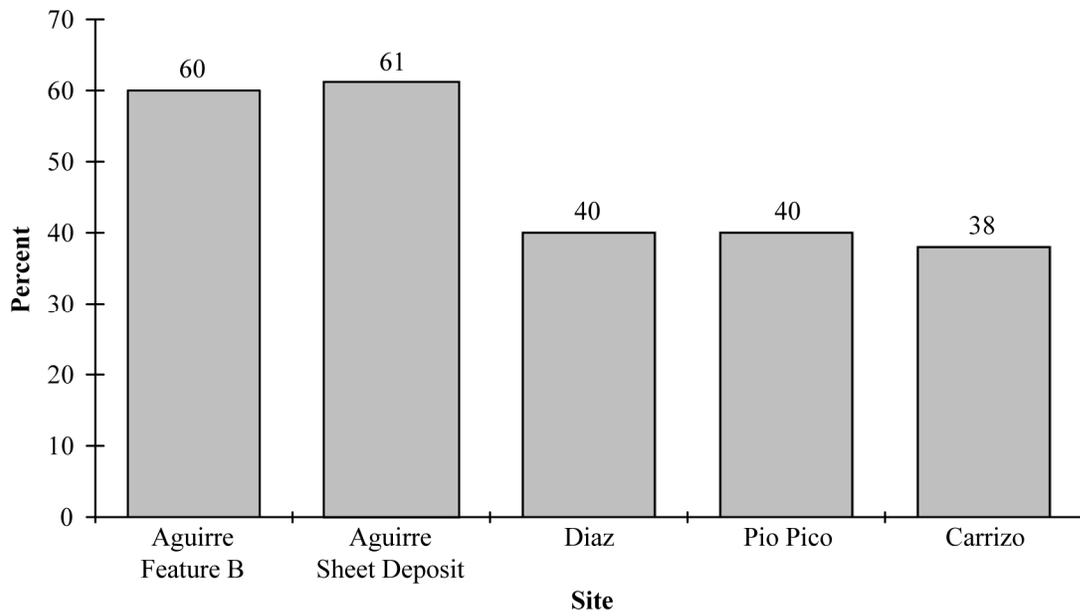


Figure 72. Cross-Site Activity Profile (Beverage Bottles).

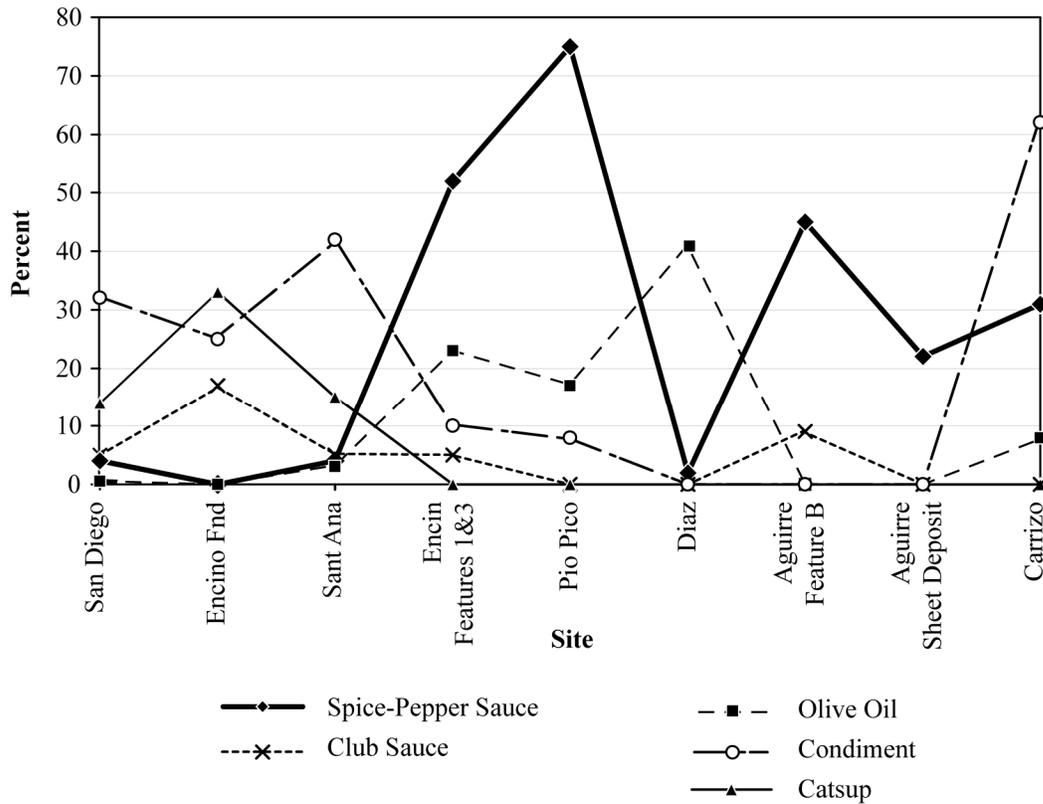


Figure 73. Cross-Site Activity Profiles (Culinary Bottles).

The San Diego, Santa Ana, and Encino foundation unit assemblages resemble each other in the wide variety of products and their dominance by packer lip, club sauce, and catsup bottles. These products make up ten percent or less of the southern European-Hispanic sites. These sites contain far fewer products and are dominated by spice, pepper sauce and olive oil, which constitute four percent or less of the Anglo-American culinary bottle assemblages. The Carrizo Stage Station shows a blending of both traditions. The assemblage exhibits Hispanic dietary influences with relatively high percentages of spice-pepper sauce and olive oil bottles that together make up 38 percent of the culinary containers. A traditional Anglo-American style diet, however, is also strongly indicated by the fact that the collection is also the highest in packer-closure-style condiment and pickle bottles at 62 percent of the culinary bottle assemblage.

Faunal, Native American pottery and ground stone data also document this blending of two dietary traditions. According to Arter's analysis, the butchering tools and meat cuts represented among the butchered domestic fauna reflect two different processing methods. Sawn steak, roast, and rib cuts reflect Euro-American butchering techniques, whereas cleaved ribs and shattered limb bones are typical of Mexican culinary practices. Significant quantities of Native American pottery cooking vessels are another element of the assemblage that suggest traditional Mexican and/or Native American cooking. In nineteenth-century Mexican society, much of the food was prepared in locally-made paddle-and-anvil manufactured wares. This is still the case in some of the remote regions and Native American communities of Baja California. High quantities of Native American pottery have been associated with artifact assemblages from late nineteenth- and early twentieth-century Southern California mining camps that had been occupied by Mexican families, and represent Hispanic dietary patterns (Burney et al. 1993; Schaefer 1993). The use of traditional stone grinding implements and open hearth cooking methods also reflects the incorporation of Mexican and/or Native American traditional processing and cooking styles at the site.

In addition to the blending of two dietary traditions, the types of meat consumed at the stage station are interesting and insightful. The large quantity of cattle and sheep remains indicates a reliance on livestock driven overland and butchered on site. In spite of this, wild animals also made up an important component of the station occupants' diet. Rabbits and hares appear to have been procured at the station. However, a large number of water fowl were shot elsewhere and brought in, possibly already dressed and salted, given the lack of water fowl skulls in the collection.

The small amount of historic documentation of food available along the overland mail route confirms the blending of Mexican, Euro-American, and Native American cooking found in the Carrizo Creek Stage Station archaeological assemblage. References are often made to beef steak and mutton. All meals appeared to have included beans (Mexican *frijoles*) and coffee as consistent staples. (Way 1858:53, 155). In 1857, Charles F. Running described a typical Mexican supper of "jerked beef, tea, and *algunas tortillas mal hechas*," (some poorly made tortillas) served by an Native American woman. Passengers on the Butterfield Stage recorded eating beef, dried apples, beans, potatoes, and frequently pies and venison. At Alamo Mocho Station, travelers breakfasted on "tough steaks in another dusty adobe." The Butterfield passages appear to describe a more Anglo-American diet with a partial reliance on wild game.

## Economic Analysis

Economic analysis was conducted by cross-site comparison of ceramic economic index values or price scaling. As previously explained, ceramic price scaling is based on an index developed from cost relationships of decorated tableware during specific time periods (Miller 1980). This analysis used the indexes developed by Miller (1980) for the mid-nineteenth century and Henry for ceramic tableware manufactured during the late-nineteenth and early-twentieth centuries (Henry 1982). Results are shown in Table 30 and Figure 74. At 1.88, the Stage Station index value is comparable to middle class households. It is higher than 1.82 for the privy at the well-to-do merchant's house of the Aguirre Adobe in San Diego, but considerably lower than the values of 2.28 for the sheet deposit from the same location, and 2.69 for the wealthy Diaz household in Monterey (Phillips et al. 2001; Felton and Schulz 1983). Despite the isolation of the Stage Station, ceramic tableware was not plain or stark, but comparable to middle income level households on the California coast.

Table 30. Ceramic Index Value Calculations.

ITEM AND TYPE	INDEX VALUE	QUANTITY	PRODUCT
Plate			
Hand Painted Floral Polychrome	2.36	1	2.36
Undecorated	1.00	1	1.00
Molded Ironstone	1.80	4	7.20
Transfer	2.63	1	2.63
Soup Plate			
Undecorated	1.00	2	2.00
Cups and Saucers			
Undecorated	1.77	4	7.08
Hand Painted Floral Polychrome	1.23	9	11.07
Porcelain	5.83	2	11.66
Total		24	45.00

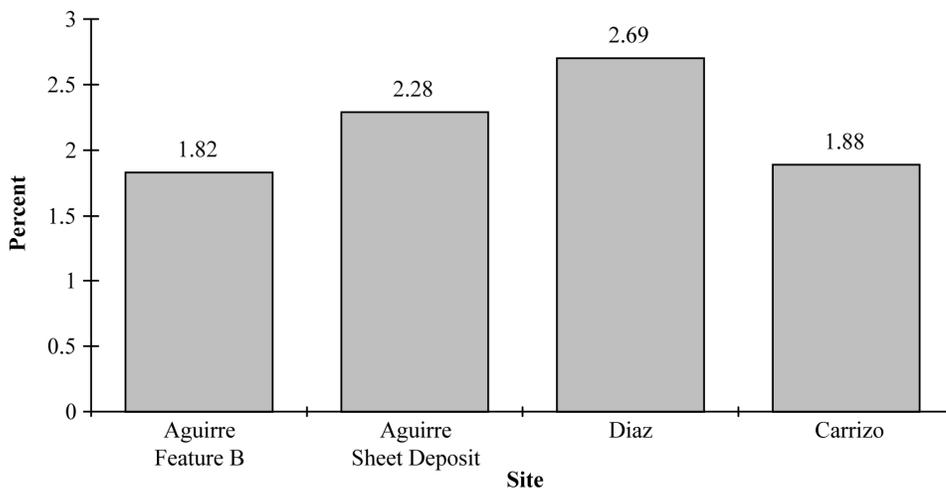


Figure 74. Cross-Site Activity Profile (Ceramics).

## *Chapter 9: Conclusions*

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Carrizo Creek, a small stream that has always been so shallow and narrow that it can easily be stepped across, is one of the most historically significant locations in the Colorado Desert. As the first reliable watering spot encountered after crossing 90 miles of arid wilderness west of the Colorado River, it was well known and the goal of many travelers on the Southern Emigrant Trail for decades prior to the establishment of the Overland Mail stage station on its banks in 1857. Accounts of travel over the portion of the trail between the Colorado River and Carrizo Creek have been considered as some of the most distressing records of overland Gold Rush travel (Wray 2000). After reaching the spring, the overland travelers' situation gradually improved. From Carrizo, at about 500 feet above mean sea level, a series of elevated valleys known as the Carrizo Corridor and Warner's Pass provided reliable water and gradually lifted the emigrants out of the desert until the top of the mountains and well-watered pasture land was reached at Warner's Ranch 55 miles to the northwest at about 2,800 feet above sea level. Here the arduous desert crossing was over.

The Southern Emigrant Trail's origins preceded the "Gold Rush." Late eighteenth and early nineteenth century Spanish and Mexican military explorations first established the route. It became well used by traders and trappers traveling between California and Sonora in the 1830s. The 1840s and 50s saw invading American armies travel the route to California during the Mexican War and its aftermath, followed by thousands of Gold Rush Argonauts. In 1855, the Army established a depot at Carrizo Creek. Within just a few years this building would become a station for the Overland Mail.

From 1857 to 1861 the Gila trail through Arizona was used by the overland mail service. Initially carried by the San Antonio and San Diego Mail line from July 1857 through August 1858, then the Butterfield Overland Mail Company from September 1858 through June 1861, establishment of the overland mail constituted the first communication and transportation link across the continental United States, 12 years before completion of the transcontinental railroad.

The station at Carrizo Creek became an important link in the San Antonio—San Diego Mail line and functioned as one of seven major stations west of the Rio Grande. Here passengers disembarked to change coaches. At Carrizo Creek they left the westbound stage from San Diego and boarded another that ran between Carrizo and Fort Yuma. It is assumed that this stage remained at the station until the other returned with eastbound passengers

that had boarded in Yuma. Watering stations were established at an average of 30-mile intervals. The only actual company station in the Colorado Desert appears to have been the one at Carrizo Creek. Watering holes located at Indian Wells, Alamo Mocho, and Cooke's Wells were unmanned.

From 1858 to 1861 Carrizo Creek also served as a station for Butterfield's Overland Mail line. This company developed a much larger and more complex infrastructure than the San Antonio and San Diego Mail, and had manned stations every ten to 15 miles, and occasionally 20 to 25 miles, apart. Under the Butterfield Mail, Carrizo Creek functioned as a changing or "swing" station to replace worn out teams with fresh horses.

Archaeological excavations at the site of the Carrizo Stage Station encountered remains of three structures, a trash pit, and other related features. Stratigraphic, architectural, and functional artifact analysis have provided data to determine the sequence of construction phases represented by archaeological features. The earliest building was Structure A, a two-room building, constructed in June 1855 by the Army and first used as a stage stop in September 1857 for the San Antonio and San Diego Mail. It is assumed that all major subsequent changes occurred between this time and when the Butterfield Overland Mail ceased to operate in 1861. Although occupation of the building is documented through at least the mid-1870s, the few existing descriptions consider it to be in a rundown and neglected state.

Shortly after overland mail service began, Feature B4 was used as a trash dump. It was then covered over and a feed bin was constructed at Feature B2 and probably an adobe corral at Structure D. At some point the feed bin burned. Following this, a wattle and daub kitchen structure was built on the north side of the adobe station building. The remains of this building were designated as Structure C. Finally, this was replaced with an adobe building, Structure B, which also appears to have served as a kitchen. A wooden feature was built on the north side of this adobe, which later burned at the location of Feature B1.

For Structure A, activity profiles for the east and west rooms were compared. The east room produced 81 percent of the artifacts (52 items). All the munitions, personal items, household items, a coin, and most of the garment items were recovered from the east room. The munitions included buckshot, a lead ball, and percussion caps. Shoe eyelets, suspender hardware, and buttons made up the garment items. Personal items included a lace-making bobbin, a desert rose quartz mineral specimen, and a red clay smoking pipe.

The west room assemblage, on the other hand, was dominated by consumer and kitchen items that included liquor and culinary bottles, egg shell fragments, and pieces of undecorated ceramic earthenware. This would suggest that the east room may have been a sleeping room where garments, personal belongings, and weapons were stored, while the west room may have served as a kitchen and dining room, where meals and beverages were prepared and consumed. The differences in these activities explain the higher number of artifacts in the east room where a wider variety of activities and associated items would have resulted in greater loss.

Construction at Carrizo Stage Station combined elements of traditional architecture commonly found in Northern Mexico and specifically in the desert regions of Sonora and Baja California. This method of building derived from a combination of Spanish Colonial and Native American styles that evolved as Hispanics adapted to the desert. It was the architecture of a people who, for generations, had lived in the desert as desert dwellers

(Garrison 1990; Sheridan 1986:12). The Carrizo Stage Station reflects vernacular Sonoran architectural traditions in almost all of its construction aspects. It was built of local materials found on site. Essentially, Structures A and B were small, thatched-roof adobe buildings with packed earthen floors. The 24-inch-wide adobe walls were supported by shallow cobblestone foundations. The thatch roof consisted of a framework of poles “thrown” across the walls and covered with a layer of sticks and grass. This is confirmed in descriptions as well as by the roof fall remains found in the east room of Structure A. Although the exact configuration of the wattle and daub building represented by Structure C cannot be determined, its construction methods, with a tight row of willow or ocotillo stakes placed in a narrow trench, is typical of *jacal* construction common to northern Mexico.

The artifact assemblage activity profile of the Carrizo Station collection was compared to profiles of assemblages representing households dating circa 1860 to through the 1880s. The stage station assemblage stands out from the other sites in several aspects. It is the lowest in consumer and kitchen items, which are both near ten percent. The collection, on the other hand, is the highest in animal husbandry and munitions at 27 and 20 percent. Munitions values for the other sites are ten percent or less and animal husbandry is not represented. This analysis shows the unique function and environment of the Stage Station. Its primary function to care for horses and mules is reflected in the dominance of the assemblage by animal husbandry. Other aspects of the Carrizo pattern reflect its isolated environment. All of the other sites are on the coast and the Pio Pico assemblage dates to the period after the transcontinental railroad had been completed. Supplies were much more readily available for these households resulting in higher consumer and kitchen item values. Carrizo had to be supplied overland. Its isolated location in an unsettled and dangerous frontier required an increased emphasis on weapons for personal protection as well as hunting. The situation of difficult supply lines and an increased need for firearms is reflected in the decreased percentages of consumer and kitchen items and the high value for munitions.

In spite of the difficulty of obtaining supplies, life at the station was by no means lacking amenities. The ceramic index value is not exceptionally low and is comparable to middle class households. It is higher than the value for the privy at the Aguirre Adobe in Old Town San Diego, but considerably lower than the value for the wealthy Diaz household in Monterey. A variety of liquors were also available at the station, including ale or porter, wine, and gin.

Dietary analysis of Carrizo Stage Station bottles shows a blending of Anglo-American and Hispanic dietary traditions. The assemblage shows relatively high percentages of spice-pepper sauce and olive oil bottles, which together make up 38 percent of the culinary containers. It is also the highest in packer closure style condiment and pickle bottles, at 62 percent of the culinary bottle assemblage.

Faunal information and Native American pottery and ground stone data also document a blending of dietary traditions. The butchering tools and meat cuts represented among the butchered domestic fauna reflect two different processing methods. Sawn steak, roast, and rib cuts reflect Euro - American butchering techniques, whereas cleaved ribs and shattered limb bones are typical of Mexican culinary practices. Significant quantities of Native American pottery cooking vessels and ground stone implements are another element of the assemblage that suggest traditional Native American and/or Mexican cooking

practices. In nineteenth-century Mexican society, much of the cooking was done in locally-made paddle-and-anvil manufactured wares. This is still the case in some of the remote regions of Baja California. High quantities of Native American pottery has been associated with other assemblages that represent Hispanic dietary patterns in nineteenth-century Southern California.

In addition to the blending of two dietary traditions, the types of meat consumed at the stage station are interesting and insightful. The large quantity of cattle and sheep remains indicates a reliance on sheep and cattle driven overland and butchered on site. In spite of this, wild animals also made up an important component of the station occupants' diet. Rabbits and hares appear to have been procured at the station. However, a large number of water fowl were shot elsewhere and brought in, possibly already dressed and salted given the lack of water fowl skulls in the collection.

The small amount of historic documentation of food available along the overland mail route confirms the blending of Mexican, Euro-American, and Native American cooking documented by the Carrizo Creek Stage Station archaeological assemblage. References are often made to beef steak and mutton. All meals appeared to have included beans (Mexican *frijoles*) and coffee as consistent staples. In 1857 Charles of Running described a typical Mexican supper of "jerked beef, tea, and *algunas tortillas mal hechas*," served by an Native American woman. Passengers on the Butterfield Stage recorded eating beef, dried apples, beans, potatoes, and frequently pies and venison. At Alamo Mocho Station travelers breakfasted on "tough steaks in another dusty adobe." These passages appear to describe a more Anglo-American diet with supplemented by wild game.

In conclusion, historical and archaeological evidence present a picture of the Carrizo Stage Station as an isolated frontier outpost. The small adobe and *jacal* buildings were constructed of materials found on or near the site. Based on vernacular architectural designs common to northern Mexico, they were well-suited to life on the desert frontier but appeared as rude "backwoods" dwellings to travelers from the eastern United States. The station's isolated location in an unsettled and dangerous frontier required an increased emphasis on weapons for personal protection as well as hunting. The situation of difficult supply lines and an increased need for fire arms is reflected in the decreased percentages of consumer and kitchen items and the high value for munitions when compared to artifact assemblages representing households on the California coast. Also reflective of its situation was evidence of the blending of multiple culinary traditions. The American Southwest at this time had recently been annexed from Mexico and remained largely unsettled. It was a land where Hispanic, Native American, and Anglo-American cultures were mixing and blending. Evidence of the combining of the dietary traditions of these cultures was seen in the faunal analysis, bottle glass assemblage, and Native American ceramics at the Carrizo Stage Station.

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