

**MUSEUM OF NEW MEXICO**

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**OFFICE OF ARCHAEOLOGICAL STUDIES**

**RESULTS OF THE MONITORING OF TWO CONSTRUCTION SITES  
ALONG LINCOLN AVENUE, SANTA FE, NEW MEXICO**

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with a contribution by  
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**ARCHAEOLOGY NOTES 61**

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## ADMINISTRATIVE SUMMARY

From November 1990 to July 1991 the Office of Archaeological Studies, Museum of New Mexico, conducted emergency monitoring of two construction projects along Lincoln Avenue in Santa Fe, New Mexico. The monitors were Byron Hamilton, Stephen Post, Macy Mensel, Adisa Willmer, Jennifer Yellen, Tim Maxwell, Lynne Drake, Stephen Lent, and Guadalupe A. Martinez. The first project area was at the southern end of Lincoln Avenue (LA 4450-52), where a storm drain trench running east across Lincoln Avenue was installed. The second project, the remodeling of the Hewett House part of the original Fort Marcy Officer's Quarters (LA 930) at 116 Lincoln Avenue, connected a drain with the aforementioned storm drain.

Prehistoric and historic artifacts were recovered from both locales. The age of these artifacts indicates that the area was in use primarily from Colonial times into the twentieth century.

Museum of New Mexico Project No. 41.391 (Lincoln Avenue)

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## INTRODUCTION

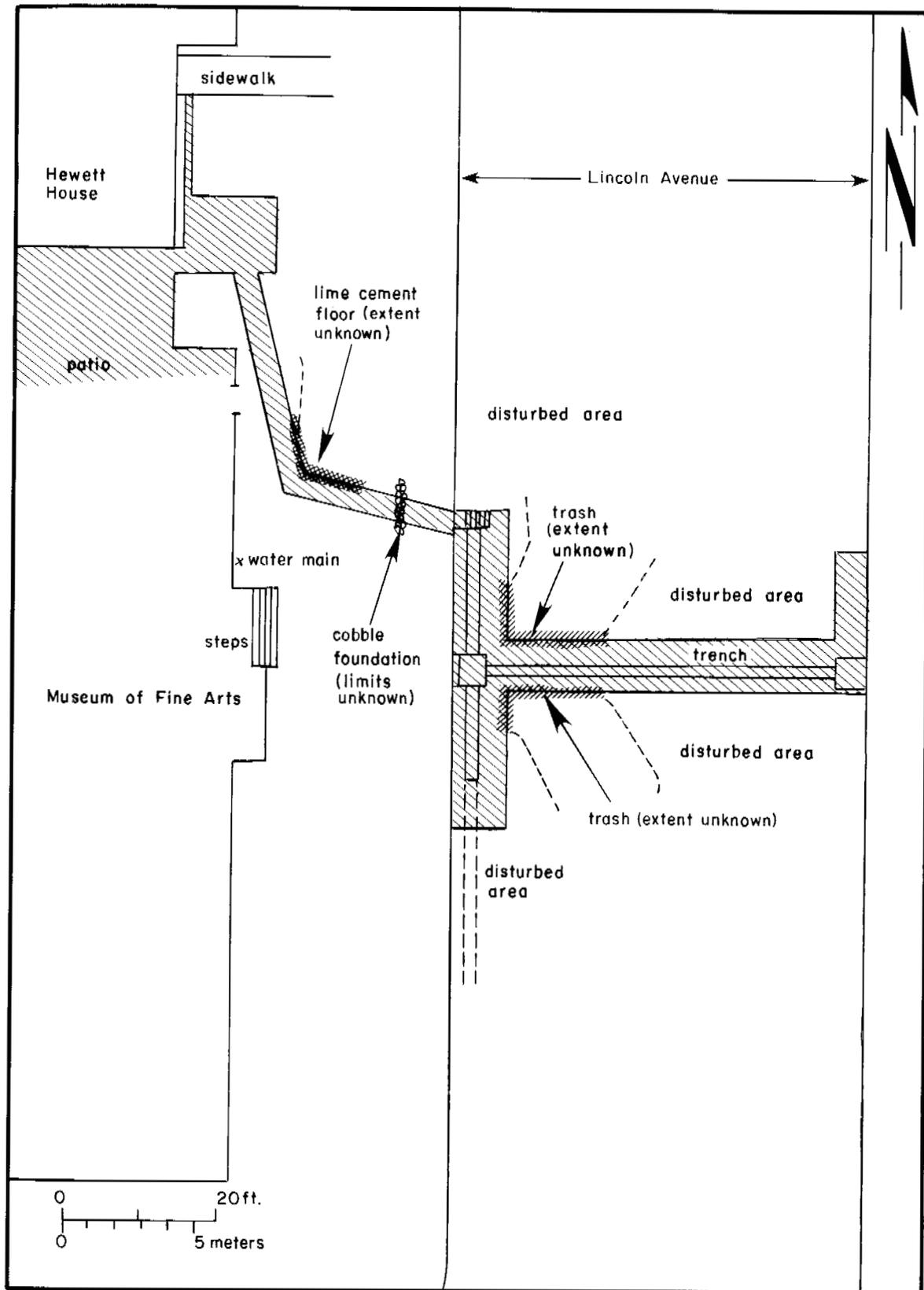
In November 1990, the staff of the Office of Archaeological Studies (OAS), Museum of New Mexico, monitored the emergency repair of a storm sewer beneath Lincoln Avenue, Santa Fe, New Mexico. The monitoring was performed to document any cultural remains under the street.

The storm sewer trench extended west to east between the Fine Arts Museum and the Palace of the Governors (Fig. 1). Excavation for the repairs revealed that the southern portion of Lincoln Avenue had been disturbed by previous utility work, and the eastern half had been disturbed by installation of utility lines. The western end of the storm sewer trench and the trench that was parallel to and abutting the curb contained undisturbed trash fill. This area is now designated LA 4450-52. The basement areas of the Palace and the Fine Arts Building were sustaining damage from drainage water, and work was accomplished very quickly because of concerns about the weather.

On June 3, 1991, on an emergency basis, OAS monitored the remodeling of an outdoor courtyard at 116 Lincoln Avenue, known variously as Fort Marcy Military Barracks, the Hewett House, and LA 930, to document any cultural remains (Figs. 2 and 3). On July 12, 1991, trenching in front of the Hewett House to connect a drain to the previously installed storm drain at LA 4450-52 was also monitored. The entire southern half of the block that comprises the Fine Arts Building and the Hewett House has been designated as LA 930, and the Hewett House itself is on the *National Register of Historic Places*.

Members of OAS who helped with the monitoring and collection at LA 4450-52 were Byron Hamilton, Stephen Post, Macy Mensel, Adisa Willmer, Jennifer Yellen, and Guadalupe A. Martinez. Tim Maxwell, Lynne Drake, Stephen Lent, and Guadalupe A. Martinez collected and recorded the construction at LA 930. David H. Snow of Cross-Cultural Research Systems donated his time for the ceramic analysis. The faunal analysis was directed by Linda Mick-O'Hara of OAS.

The city of Santa Fe Public Works personnel were very helpful in the field and in the office. Special thanks go to Fred Archuleta, Mike Vargas, and Chuck Lange for helping with maps and general information concerning the excavation at LA 4450-52.



1. Map of excavation area.



*2. Headquarters Building, Fort Marcy, Palace and Lincoln avenues, ca. 1880-90. Courtesy Museum of New Mexico, Neg. No. 1714.*



*3. Hewett House, Lincoln Avenue, ca. 1920. Courtesy Museum of New Mexico, Neg. No. 28862.*

## A BRIEF HISTORY OF THE EXCAVATION AREAS

Our knowledge of the prehistory of downtown Santa Fe is sketchy. LA 1051, beneath the Santa Fe municipal buildings, is the only site in downtown Santa Fe where remains of a Native American pueblo have been found. Mera (1934:15) recorded the remains of an adobe wall of a pueblo, exposed during construction.

Santa Fe was established in 1610 by decree of the Spanish Crown. Previously, the capital was at San Gabriel, near the pueblo of San Juan. The government buildings of the Spaniards (*casas reales*) were constructed in Santa Fe sometime after 1609. From the time of its founding, Santa Fe always had some sort of presidio (Moorhead 1974:123). The early presidio was part of the *casa reales*, which included the Palace of the Governors, but was not laid out in a formal plan.

In 1680, the time of the Pueblo Revolt, the *casas reales* had a wall surrounding it and two towers, one each in the southeast and southwest corners. The occupying pueblo Indians remodeled the *casas reales* between 1680 and 1692. The reconquering army of the Spanish Crown found the Palace remodeled as a multistoried building, replacing the low buildings of the Palace. The interior rooms had been divided. Some of the rooms had storage pits dug into the floors (Snow 1974:16). A formal military company was formed for Santa Fe after the reconquest in 1693 and occupied the Palace of the Governors and surrounding buildings. However, a formal presidio was not constructed until 1789 to 1791 (Moorhead 1974:129).

After 1693, the buildings of the Palace deteriorated until it was no longer considered a functional edifice (Moorhead 1974:124). A map of Santa Fe drawn by Joseph d'Urrutia in about 1766 shows the presidio with its entrance where Lincoln Avenue is today. According to Spanish documents the presidio and royal offices were still in very poor condition at the end of the eighteenth century. The royal decree of 1791 issued instructions for the construction of a true presidio according to specific guidelines. Whether these instructions were strictly adhered to is questionable. Some private dwellings in the area had to be bought by the government before construction of the presidio could begin (Moorhead 1974:131). The possible owner of the land directly west of the sewer trench was Corporal Luis Jaramillo (Snow 1990:11-12). The results presented here assume that the land around the Lincoln and Hewett excavations fell within the private lots that were bought to facilitate building of the presidio. Part of the trash fill from Lincoln Avenue may be household debris from the Jaramillo residence.

In 1846, the invading forces of the United States found the presidio and the *casas reales* in a state of deterioration. Like the Spanish Crown, the Mexican government had neglected the government offices. However, a map produced by Lt. W. H. Emory and Lt. J. F. Gilmer in 1846-47 shows that there were still some buildings left, enough to be included in their map. "There seems little reason to doubt that what the U.S. Army First Lieutenant Gilmer called the 'public grounds' on his map dated 1846-47 was actually the then 55-year-old remains of the 1791 Presidio" (Schaafsma 1982:34).

The remaining buildings, including what is now 116 Lincoln Avenue, were taken over by the U.S. military to be used as headquarters. Lincoln Avenue itself, built about 1866, passed through the 1791 presidio entrance (Schaafsma 1982:35). About one quarter of the old Palace was

destroyed to make Lincoln Avenue, which runs north of the plaza to the Federal Building. "Several other U.S. Army maps prepared in the 1850s show clearly that during the early Territorial period the Army utilized the already existing Presidio" (Schaafsma 1982:34).

The presidio and the U.S. military compound have a direct correlation to the Lincoln excavation:

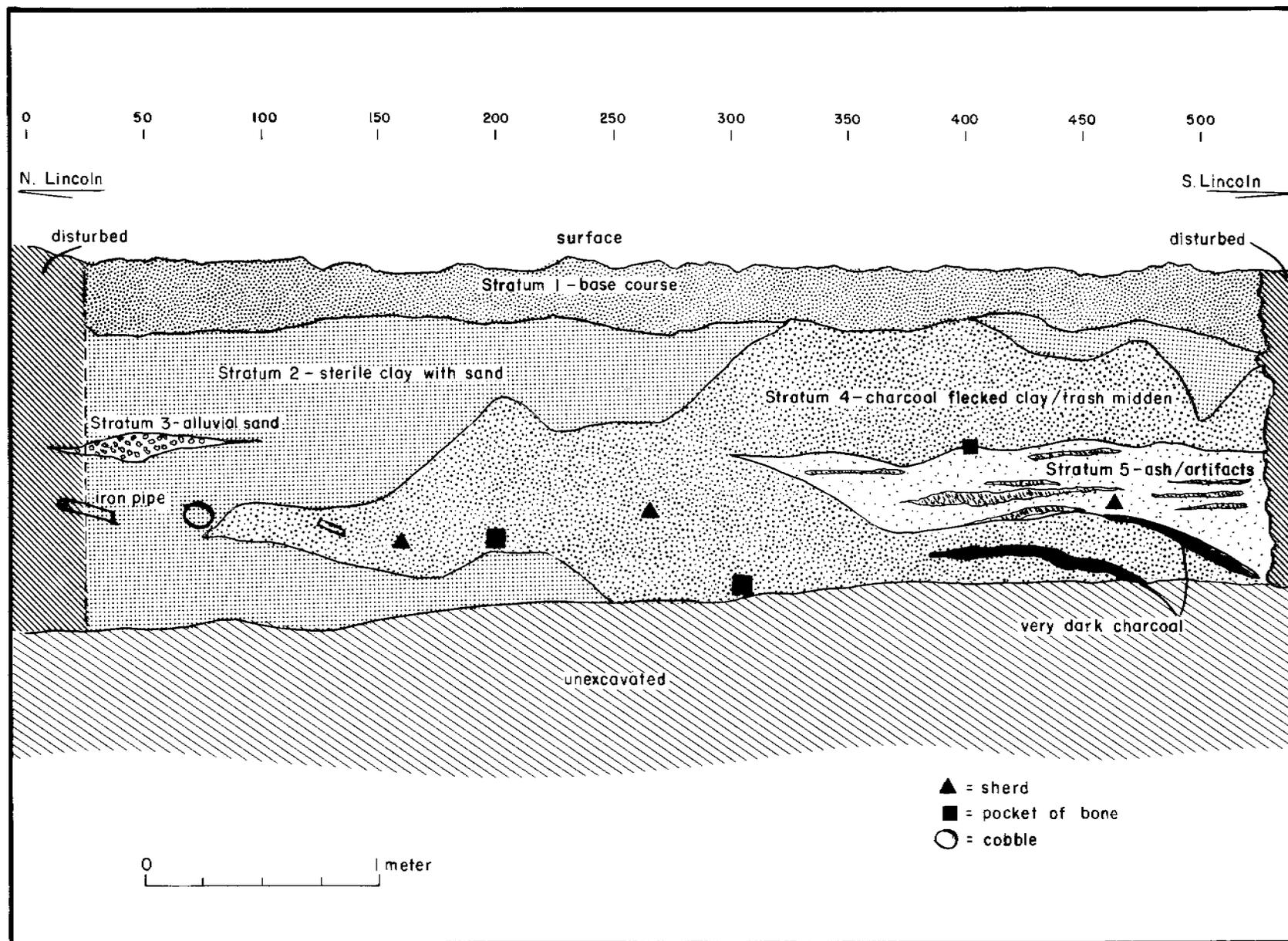
The fact that the 1791 Presidio remained until after 1846, and that it was used by the U.S. Army in the early years of Fort Marcy, affected the location of many downtown Santa Fe streets. . . . Grant Avenue extends along the former Presidio west side. . . . Lincoln Avenue was cut through the middle of the area about 1866, and it passes through the spot that marks the 1791 entrance to the Presidio. . . . After the U.S. Civil War, most structures of the Old Mexican and Spanish Presidio were removed. (Schaafsma 1982:35)

The U.S. military barracks were transferred by presidential proclamation to the city of Santa Fe, which then transferred the buildings to the Board of Education in 1916. The area was eventually sold to the School of American Archaeology (later the School of American Research) and the newly established Museum of New Mexico. Following the purchase Jesse Nusbaum began the construction of the Fine Arts Building. During the construction he discovered cultural material, but the only known record of these artifacts is a newspaper report in the *New Mexican* from May 15, 1916. Edgar Lee Hewett took one of the old barracks (LA 930) as his office. This building now houses the Museum of New Mexico Foundation.

## PREVIOUS EXCAVATIONS IN THE VICINITY

In addition to the investigations by Nusbaum, which coincided with the demolition of the military barracks in preparation for building the Museum of Fine Arts, there have been other studies in the project area. The Fort Marcy barracks, or Hewett House, is designated LA 930. The area of the current municipal buildings of Santa Fe, located on Lincoln Avenue, is designated LA 1051. As noted earlier, Mera (1934:15) saw pueblo walls during construction of the buildings. Donna Seifert (1979) conducted an archaeological survey of the construction site for the gallery addition to the Fine Arts Museum. The construction site was tested in 1979-80 by the Contract Archaeology Section, Laboratory of Anthropology. The area around the building at 142 Lincoln was investigated by Cross-Cultural Research Systems. Regrettably, very little in the way of artifacts was found, and no architectural remains were present. However, the historical research for the area done by Cross-Cultural Research Systems was extensive. Portions of the Palace of the Governors (LA 4451), due east of the trench, have been excavated on and off for years (every addition or remodeling project involved an archaeological investigation). One block east is LA 71605, a Spanish Colonial site, in Washington Avenue.

None of these projects were conducted in Lincoln Avenue. However, LA 4450-52 is probably associated with LA 930 and LA 4451. All three sites are on the site of the old Fort Marcy barracks. Though small, the artifact assemblages are similar, and the cobble foundations and whitewash lens appear at all three sites.



4. Profile of trench at LA 4450-52.

All artifacts were collected by a random sampling of the backfill or by removing artifacts from the trench wall while sewer work was momentarily halted. The city repair crew often collected artifacts encountered during their work. All artifacts were bagged and taken to the OAS offices for analysis. The digging of the trench was monitored to ensure that no architecture was encountered and that no culturally important remains were destroyed.

A profile of the trench (Fig. 4) and a site map (see Fig. 1) were produced using Public Works engineering maps and field drawings.

The artifacts from LA 4450-52 range from the prehistoric period to the late nineteenth century (Tables 1-3). They indicate possible use of the area by Native Americans prior to Spanish incursion. However, since there is no current evidence of a prehistoric dwelling in the immediate area, the artifacts may have been collected by the Spanish inhabitants who lived in the presidio. Further investigation would be required to assess the nature of possible prehistoric use of the area.

The occurrence of a Spanish olive jar fragment and majolica reflect the pre-1846 trade with Chihuahua, Mexico, along the Camino Real. These objects could easily have come from the Luis Jaramillo household. Strike-a-lights, used to start fires or light smoking material, are a historic Spanish tradition in New Mexico. Majolica was imported from Mexico, suggesting that the trash came from a household of greater than average economic resources. Manos and metates are associated with food preparation, but it is unknown whether the fragments from LA 4450-52 are prehistoric or historic. The mica sheets could be the remains of windows used by Spanish colonists.

The jar-to-bowl ratio of 1:1.4 in the Tewa red ware series suggests slightly more emphasis on food preparation than storage but no significant difference. The soup plate rims reflect the Spanish influence on local pottery production.

The red ware category breaks down as follows: (1) One Tewa Polychrome jar (base to shoulder) with no red; cream slip with two black framing lines below bulge containing design field. Snow (pers. comm.) believes that this is perhaps the only known example of Mera's "Tewa Polychrome." (2) Fifteen Pojoaque Polychrome jar sherds (as defined by Mera). (3) Two Tewa-Sankawi Black-on-cream bowl sherds with interior-exterior design on cream slip; no red. (4) Eight Tewa Polychrome bowl rims with exterior design on standing F rim. (5) One Tewa Polychrome F bowl rim with interior-exterior white slip. (6) One Tewa Polychrome F bowl rim with interior rim design, plain red exterior slip. (7) Eleven Tewa Polychrome miscellaneous bowl sherds (three rims). Ten have interior design only. One has a high-standing F rim and exterior paint with a flared interior rim carina. (8) One Tewa Polychrome soup plate rim. (9) One short-neck Tewa series jar with a globular shape, small, with exterior slip and design in black to rim (aberrant form?). (10) One Tewa Polychrome pitcher (?) form with slip and design on neck to rim. The design includes Ogapoge-like elements in black, a feather and checkerboard; no red in design. (11) Forty-five micaceous utility similar to Santa Cruz Micaceous and Lopez Micaceous. (12) Five Santa Cruz Striated (cf. "Faint-striated," at Pecos). (13) Fourteen Santa Cruz Plain (type names are contained in Snow 1978). (14) Two unidentified "utility," one of which may not

**Table 1. Ceramics, LA 4450-52**

| Period and Type   | Dates (A.D.)       | Number |
|---|--------------------|--------|
| Prehistoric   |                    |        |
| Santa Fe Black-on-white   | 1175-1300          | 1      |
| Wiyo Black-on-gray  | 1300-1450          | 1      |
| Cieneguilla Glaze-on-yellow, "Glaze A"                                    | 1315-1425          | 1      |
| San Lazaro Glaze Polychrome (?), "Glaze D"                                | 1490-1515          | 2      |
| Unidentified prehistoric black-on-white (?)                               |                    | 1      |
| Spanish Colonial  |                    |        |
| Rio Grande Glaze F (both red and white series)                            | 1650-1700          | 5      |
| Kapo Gray   | 1650-1750          | 4      |
| Similar to Kapo Black (overall smudged and polished, uneven black-on-red) | 1650-1750          | 7      |
| Miscellaneous Tewa series red ware bodies                                 | 1760-1900          | 151    |
| Abiquiu Black-on-gray   | 1350-1450          | 1      |
| Mexican majolica (Abo Polychrome)   |                    | 3      |
| Mexican majolica (Puebla Polychrome)                                      | eighteenth century | 1      |
| Spanish olive jar   | eighteenth century | 3      |
| Historic Unknown  |                    |        |
| Unidentified Rio Grande glaze bodies                                      |                    | 5      |
| Historic utility (primarily micaceous slip and/or paste)                  |                    | 66     |
| Tewa series, decorated  |                    | 42     |
| Blind-indented corrugated   |                    | 1      |
| Unidentified lead-glaze red ware, wheel-thrown (U.S. or Mexico?)          |                    | 7      |
| Territorial   |                    |        |
| Ginger beer bottle fragment (stoneware, eastern U.S.)                     | nineteenth century | 1      |
| Unidentified bisque porcelain handle                                      | nineteenth century | 1      |
| Total   |                    | 304    |

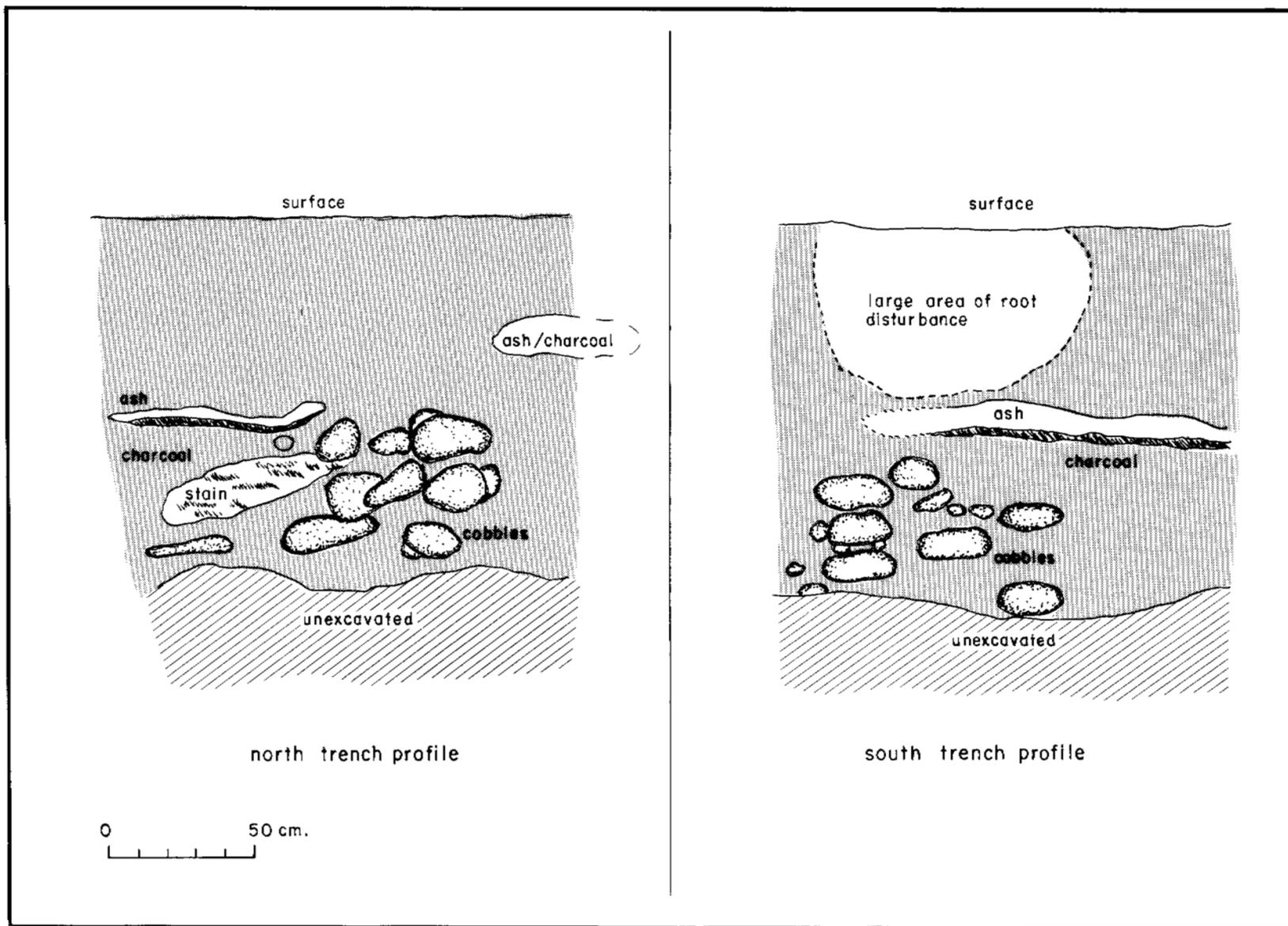
be ceramic. (15) One Tewa red spindle whorl fragment, rim diameter 4.8 cm, hole diameter .9 mm. (16) Ten Tewa red soup plate forms. (17) One Tewa red handle. (18) One Glaze F (red) soup plate rim. ( 18) Seven similar to Kapo Black, perhaps transition from Gray to Black; does not appear to have been unintentionally exterior smudged, but surface is uneven and body thicker than classic Kapo Gray.

**Table 2. Lithic artifacts, LA 4450-52**

| Description  | Number |
|--|--------|
| Multidirectional core of silicified wood reused as a hammerstone | 1      |
| Polished and worn schist/siltstone fragment, unknown use         | 1      |
| Denticulated tool type, retouched and worn, chert flake          | 1      |
| Chert flake  | 1      |
| Chalcedonic flake  | 1      |
| Strike-a-light   | 1      |
| Total  | 6      |

**Table 3. Miscellaneous artifacts, LA 4450-52**

| Description   | Number<br>(Weight) |
|---|--------------------|
| Coarse sandstone metate fragment with battering marks, reused as a mano   | 1                  |
| Sherd of blue milk glass, rim and body fragment, molded, possibly pressed | 1                  |
| Fragment of rolled copper tube with side seam                             | 1                  |
| Corn cob, burned  | 1                  |
| Sheet mica  | (16 gr)            |



5. Cobble alignment, LA 4450-52, north and south walls of trench.

## LA 930

All artifacts from LA 930 (Tables 4-6) were collected by a random sampling of the backfill, removing artifacts from the excavated areas when work was temporarily halted or screening the backfill. The construction crew often collected artifacts encountered during their work. Artifacts were bagged and taken to OAS for analysis. A possible stone foundation was encountered but destroyed before archaeologists could properly excavate and record it. The few artifacts recovered were analyzed by the staff of OAS.

### Architecture

A cobble alignment or foundation was discovered during the excavation (Fig. 5), and a thin white layer of lime was noticed in the trench wall. These features were also uncovered by Post and Snow in their 1979 excavation for the Fine Arts Gallery Annex: "An alignment of river cobbles was uncovered 13 cm below the compacted level. . . . This was probably a structural foundation, possibly pre-revolt. . . . The Fort Marcy component was represented by a well preserved foundation, partial wall remnant, and a lime cement floor" (Post and Snow 1982:10).

Unfortunately, the archaeological crew was unable to record the lime cement layer except in writing and on a sketch map. Its depth (50 cm) and location were noted and indicated on the site map (see Fig. 1). A three-course possible cobble foundation of unknown length was also indicated on the site map.

### Artifacts

Table 4. Ceramics, LA 930

| Period and Type           | Dates     | Number |
|---------------------------|-----------|--------|
| Prehistoric               |           |        |
| Red Mesa Black-and-white  | 875-1100  | 1      |
| Pueblo II white ware      | 1000-1100 | 1      |
| Pueblo III white ware     | 1100-1300 | 3      |
| Santa Fe Black-and-white  | 1175-1300 | 1      |
| Galisteo Black-and-white  | 1250-1350 | 1      |
| Wiyo Black-and-white      | 1300-1450 | 1      |
| Biscuit "A"               | 1350-1450 | 3      |
| Tesuque Smearred Indented | 1100-1300 | 17     |
| Glaze A                   | 1315-1425 | 1      |

| Period and Type   | Dates     | Number     |
|---|-----------|------------|
| Glaze A (Cieneguilla Glaze-on-Yellow)                                     | 1315-1425 | 1          |
| Spanish Colonial and Territorial  |           |            |
| Agua Fria Glaze-on-red  | 1325-1415 | 1          |
| Glaze F   | 1650-1700 | 1          |
| Indeterminate glaze   |           | 1          |
| Tewa Red  | 1760-1900 | 29         |
| Tewa Black-on-gray  |           | 10         |
| Powhoge Polychrome  | 1760-1900 | 9          |
| Heujotzingo majolica (blue-banded), Hacienda Bustillos, Chihuahua, Mexico | 1780-1850 | 1          |
| Unknown majolica  |           | 4          |
| Historic Unknown  |           |            |
| Indeterminate Historic Polychrome   |           | 1          |
| Flow blue   |           | 5          |
| Oriental porcelain  |           | 1          |
| Bisque porcelain  |           | 1          |
| Indeterminate white   |           | 3          |
| Unknown   |           |            |
| Mica slipped exterior, smudged and polished interior                      |           | 1          |
| Micaceous   |           | 2          |
| Micaceous clapboard utility   |           | 1          |
| Micaceous utility (mica paste)  |           | 4          |
| Micaceous utility slipped   |           | 5          |
| Indeterminate black-on-white  |           | 3          |
| Indeterminate plain   |           | 6          |
| Indeterminate white ware  |           | 1          |
| Utility ware  |           | 1          |
| <b>Total</b>  |           | <b>121</b> |

**Table 5. Lithic artifacts, LA 930**

| Description                                    | Number |
|--|--------|
| Strike-a-light, made from local Tecolote chert | 1      |
| Possible strike-a-light fragment, chert        | 1      |
| Unused chert flakes                            | 2      |
| Total  | 4      |

**Table 6. Miscellaneous artifacts, LA 930**

| Description   | Number |
|---|--------|
| Ground stone polished on both top and bottom, unknown use | 1      |
| Chimney lamp glass  | 4      |
| Thin brown glass  | 1      |
| Thick brown glass with opalescence                        | 1      |
| Aqua bottle glass with opalescence                        | 3      |
| Graduated bottle glass, purple glass with "seeds"         | 1      |
| Shoulder of a bottle with opalescence                     | 1      |
| Dark green glass with opalescence                         | 4      |
| Green glass with slight opalescence                       | 2      |
| Window glass  | 13     |
| Used horseshoes   | 2      |
| Fragment of a steel wagon stay chain with twisted links   | 1      |
| Indeterminate wagon part with hook                        | 1      |
| Indeterminate wagon part, plate                           | 1      |
| Square machine-made nail                                  | 1      |
| 12 pennyweight cut wire nail                              | 1      |
| Unknown size square nails                                 | 10     |
| Four-hole button, 10.5 mm in diameter                     | 1      |
| Four-hole button, 16 mm in diameter                       | 1      |
| Burned adobe fragment                                     | 4      |
| Brick fragment  | 4      |
| Total   | 58     |

## Summary

The ceramics from LA 930 resemble those from LA 4450-52. They date from the prehistoric period through the nineteenth century. The discovery of the cobble foundation and the thin limestone layer concur with Post and Snow's (1982) findings during the Fine Arts excavation. They concluded that the limestone layer was the whitewashed floor of the Fort Marcy Officer's Quarters. The cobblestone foundation at the Fine Arts Building was determined to possibly date to before the Pueblo Revolt. Post and Snow also noted concentrations of adobe and brick. Although no such concentrations were noted during monitoring, adobe and brick were found at LA 930. Since the excavation was less than 20 m west of the Hewett House construction area, the conclusions are applicable to LA 930.

The iron wagon parts and horseshoes might be from the Territorial period, and possibly from the military post. The nails and window glass could also be from this period or perhaps debris from the demolition of the military barracks and the subsequent construction of the Fine Arts Building by Nusbaum. The chimney glass dates to the nineteenth century and probably from the Territorial period, like the bottle fragments.

## ANALYSIS OF THE FAUNAL REMAINS RECOVERED FROM THE HEWETT HOUSE AND LINCOLN AVENUE

Linda Mick-O'Hara

The monitoring of utility construction near the Hewett House (LA 930) and in Lincoln Avenue produced an assemblage of 518 pieces of bone dating to the historic period. The bone was recovered from mixed trash deposits that were probably associated with the use of the Hewett House and surrounding residences during the eighteenth and nineteenth centuries.

The type of recovery and the mixed trash deposits prevents any temporal division within this assemblage, though the occurrence of some sawn bone in the assemblage indicates that at least part of the assemblage relates to later historic use of the area.

### Methodology

The 518 bones recovered were cleaned and processed through the Office of Archaeological Studies, Museum of New Mexico, faunal analysis system. All fragments were identified to the finest level possible for the following categories: species, element, portion, side, and age. All faunal remains were also evaluated for evidence of environmental, animal, and human alterations, including weathering, gnawing, burning, and impact marks. All bone was identified using osteological comparative specimens housed at OAS and the Museum of Southwest Biology, University of New Mexico. Osteological identification guides such as Getty (1975) for domestic animals, and Gilbert (1980) and Gilbert et al. (1981) for nondomesticates and birds were also used during the preliminary identification stages. The analysis that follows is based on these variable evaluations.

### Identification and Analysis

The analysis of these remains resulted in the identification of 78.8 percent of the sample (408 elements) to seven species and three genera. The remaining 21.2 percent of the sample (110 pieces) was only identifiable to the general categories of medium mammal, large mammal, or bird. Table 7 presents a summary of the species identified from the Lincoln Avenue project. Cattle was the predominate species identified in this sample, followed by the sheep/goat category. The fragmentary remains that could only be assigned to medium and large mammal probably represent splintered bone from sheep/goat and cattle long bone. Only one axis vertebra could be identified specifically as domestic sheep, and three metacarpals could be identified as domestic goat using criteria established by Boessneck (1970). Other identified domesticates (dog, swine, and horse) were represented by only a few specimens. Jackrabbit and deer were the only nondomesticated species identified.

**Table 7. Faunal remains recovered from the Lincoln Avenue project**

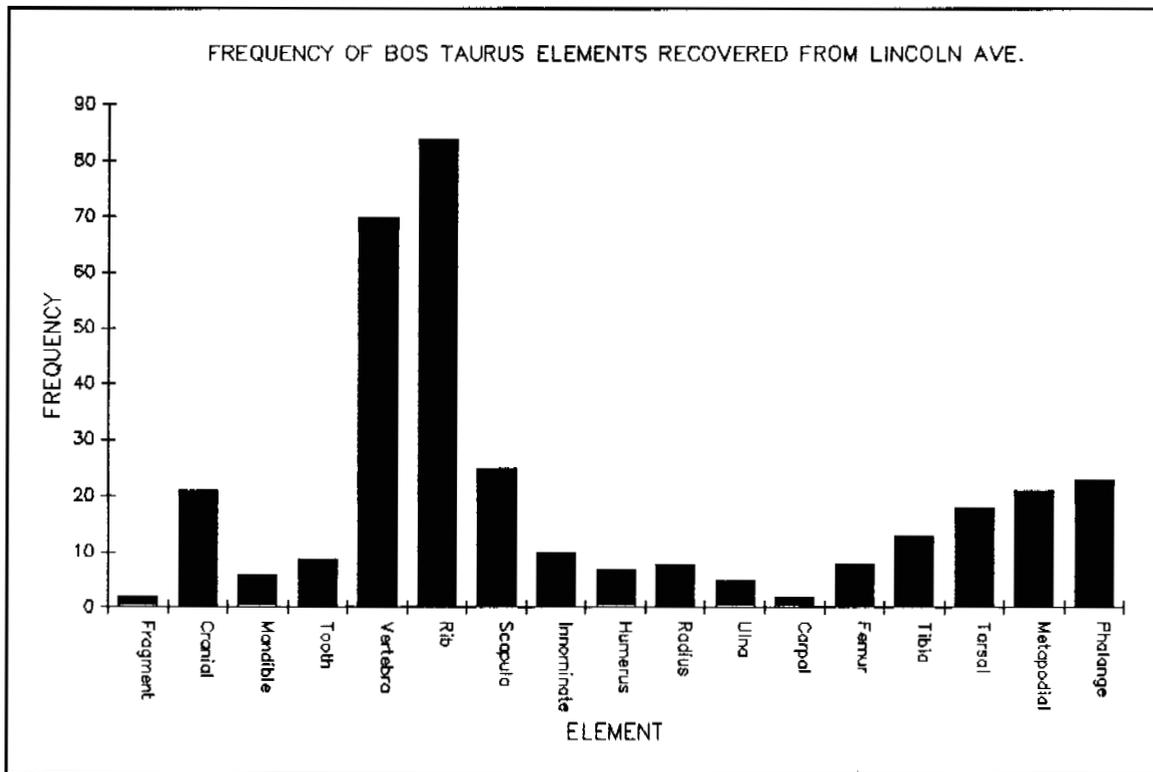
| Species   | Frequency | Percentage |
|---|-----------|------------|
| Medium mammal                                       | 40        | 7.7        |
| Large mammal  | 68        | 13.1       |
| <i>Lepus californicus</i> (black-tailed jackrabbit) | 1         | 0.2        |
| <i>Canis</i> sp. (dog/coyote/wolf)                  | 2         | 0.4        |
| <i>Canis familiaris</i> (domestic dog)              | 1         | 0.2        |
| <i>Odocoileus</i> sp. (deer)                        | 4         | 0.8        |
| <i>Bos taurus</i> (domestic cattle)                 | 335       | 64.7       |
| <i>Ovis/Capra</i> (sheep/goat)                      | 56        | 10.8       |
| <i>Ovis aries</i> (domestic sheep)                  | 1         | 0.2        |
| <i>Capra hircus</i> (domestic goat)                 | 3         | 0.6        |
| <i>Sus scrofa</i> (domestic swine)                  | 2         | 0.4        |
| <i>Equus caballus</i> (horse)                       | 3         | 0.6        |
| Aves  | 2         | 0.4        |
| Total   | 518       | 100.0      |

The 335 pieces of bone assigned to *Bos taurus* are presented in Figure 6 by element. Ribs, vertebrae, and lower limb bones dominate this distribution. These are predominately low-meat utility elements (Binford 1978) and may be the result of discarded elements from primary butchering and the use of lower-quality meat cuts. Wilson (1981:23) states that areas near the Santa Fe plaza were used to process meat for sale.

It is interesting to note that the primary butchering method evident in this faunal assemblage was the transverse or oblique splitting of bone by heavy blows from an axe or hatchet (281 bone fragments, or 54.2 percent of the total sample). Only a few elements exhibited saw markings or were segmented by sawing (16 bone fragments, or 3.1 percent of the total sample). There is some evidence (Mick-O'Hara 1990) that sawn cuts of meat only became prevalent in the latter part of the nineteenth century even in a trade center like Santa Fe.

Cutmarks and fleshing marks associated with butchering and meat mass removal are rare in this sample, with 28 bones (5.4 percent of the total sample) exhibiting some evidence of this type of impact. This pattern is typical of the historic period, when axes were used for butchering. The axe blow often obliterates any initial cutmarks present on the bone. Cutmarks are sometimes observed on the bone fragments that result from butchering, and this fragmented bone itself gives us some clue as to the implements used for carcass reduction.

A few of the specimens in this assemblage display evidence of carnivore gnawing. The occurrence of several canid bones in the sample provides evidence of dogs in the area. The bones



*Figure 6. Frequency of Bos taurus elements recovered from Lincoln Avenue.*

became part of the assemblage by accident or through the dumping of a dead animal or pet into a trash area. The jackrabbit femur was probably introduced to these deposits through canid activity.

The deer elements appear to be from at least a segment of one individual that was brought to the plaza area for sale or use by local residents. There is some slight carnivore impact to these elements as well, suggesting that dogs had at some point rummaged through this trash.

### Discussion and Conclusions

Cattle and sheep/goat remains dominate most historic assemblages in northern New Mexico (Bertram 1990) and Santa Fe in particular (Rippel-Erikson 1989; Mick-O'Hara 1990). Usually the sheep/goat remains outnumber the cattle remains in historic samples, and it is interesting to note the reversal of this in the Lincoln Avenue assemblage. This may reflect an increased use of cattle by the mess supplying food for the Fort Marcy Officer's Complex, later called the Hewitt House.

The butchering patterns identified in this sample suggest that axes were used to reduce carcasses throughout the historic period. The use of metal versus stone axes was not clear in this sample. The small amount of sawn bone suggests that the mixed context of this assemblage dates more to the earlier part of the nineteenth century, before saws were used extensively in

butchering, or that there is a small amount of later-nineteenth-century trash in this deposit.

The assemblage as a whole is typical of the historic period. Cattle and sheep were the largest contributors to the diet of the population and the trash area assemblages. Pigs provided occasional variety to the diet. Their bones, along with a few horse and dog bones, ended up in the trash areas of the village of Santa Fe.

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