

ARCHAEOLOGICAL SURVEY AND TESTING
AT RANCHO DE LAS CABRAS,
41 WN 30, WILSON COUNTY, TEXAS,
FIFTH SEASON

Anna J. Taylor and Anne A. Fox

With Appendices by

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ABSTRACT

The fifth season of archaeological investigations at the Rancho de las Cabras (41 WN 30) was conducted in late May and June 1984, by the Center for Archaeological Research, The University of Texas at San Antonio, for the Texas Parks and Wildlife Department, Austin, Texas. This field season the limits of the midden outside the northwest gate were better defined through shovel testing, and the surficial extent of another midden outside the east compound wall was mapped. Stratigraphic excavations inside and outside of Room 3 revealed a series of floors and outdoor activity surfaces and associated architectural features. To obtain information about the construction sequence at the site, trenches were dug to expose the upper part of the stone walls of the northern compound rooms, and the revealed architectural details were mapped. Archival research of the Rancho de las Cabras has aided in correcting errors concerning the site location, its affiliation with particular missions, and the types of Indian groups which lived at the site. Recommendations for future research are included in this report.

ACKNOWLEDGMENTS

Field work for the fifth season at Rancho de las Cabras was conducted by crew members Ray Smith, Margaret Greco, Ralph Snavely, Joe Labadie, Dana Anthony, and Roger Johnson, whose enthusiasm and dedication deserves special mention. Sarah Greer of Uvalde and Paul Ward of San Antonio, did volunteer work at the site. Georgeanna Greer contributed information concerning the stoneware ceramics from the site. Richard E. Ahlborn, Curator of the Division of Community Life, and Eliva Clain-Stefanelli, Director of the National Numismatic Collection, at the National Museum of American History of the Smithsonian Institution identified one of the Spanish coins found this season. The laboratory work was done by Elizabeth Craig and Dana Anthony, and David Hafernik did the drafting for the report. The project was supervised by Dr. Thomas R. Hester, Director of the CAR-UTSA, and by Anne A. Fox, Research Associate at the CAR-UTSA. Special thanks are due to the CAR-UTSA office staff, especially Mary Lou Ellis, Sharon Quirk, and Ann Young.

The former owners of the site, Winston and Jo Ann Southern, were very helpful. Winston Davis has also shown continuing interest in the project.

For their willingness in providing information about the archaeology of the Floresville area and allowing Ray Smith and Ralph Snavely to record their collections, Jack Bruce, Roy Stone, Vaughn Yeager, and Leroy Sellers deserve thanks.

Finally, the crew's stay in Floresville was made especially enjoyable and comfortable thanks to Bunnie Lotsveich.

INTRODUCTION

The 1984 archaeological investigations at Rancho de las Cabras (41 WN 30) was the fifth consecutive field project conducted at the site by the Center for Archaeological Research, The University of Texas at San Antonio (CAR-UTSA). The Texas Parks and Wildlife Department, Austin, Texas, sponsored the project which included 20 days of field work and occurred from April 30 through May 26, 1984. Rancho de las Cabras is a State Archeological Landmark and is listed on the National Register of Historic Places. It was investigated under Texas Antiquities Committee Permit No. 416. Within the site compound there is a 1936 Texas State Historical Marker of granite set into a concrete base which is dedicated (erroneously) to "The Mission of Las Cabras."

This season's field work was authorized by interagency contract no. IAC(84-85) 1275 (#344-346) between the State of Texas and the CAR-UTSA. Dr. Thomas R. Hester, Director of the CAR-UTSA, was the principal investigator for the project. The co-principal investigators were Jack D. Eaton, the CAR-UTSA Associate Director, and Anne A. Fox, Research Associate at the CAR-UTSA, who also served as the project director. Anna J. Taylor, Research Associate at the CAR-UTSA, was the field director; and the field assistants included the following CAR-UTSA personnel: Ray Smith, Margaret Greco, Ralph Snively, Joe Labadie, Dana Anthony, and Roger Johnson. Volunteer crew members included Sarah Greer and Paul Ward. In addition, archival research on Rancho de las Cabras was contributed by Dr. Thomas N. Campbell, professor emeritus of the Department of Anthropology, The University of Texas at Austin. The architecture and construction sequence at the site was contributed by Ray Smith, a stonemason. Dr. D. Gentry Steele and Gary B. DeMarcaay of the Texas A&M Anthropology Department analyzed the faunal material recovered this season.

Previous archaeological (Fig. 1) and historical investigations conducted at Rancho de las Cabras by the CAR-UTSA for the Texas Parks and Wildlife Department have been reported by Ivey and Fox (1981), Ivey (1983), Jones and Fox (1983), and Valdez (n.d.).

As specified in the project contract, the following goals were accomplished during the 1984 field season:

1. patterned testing to determine the extent of the trash disposal area (north midden) outside the northwest compound gate, achieved by digging Shovel Tests 4-17;
2. a north-south trench inside the west wall of the easternmost room on the north compound wall to examine the relationship of the walls to the original ground levels inside and outside the compound, any remaining floor(s), and any dating information obtainable, accomplished by excavation of Units 59 and 60 in Room 3, which proved not to be the easternmost room but rather the third of four rooms along the north compound wall;
3. additional excavations outside the south wall of the rooms attached to the north compound wall to recreate the pattern of doors and windows, attained by excavation of Units 61 and 63;

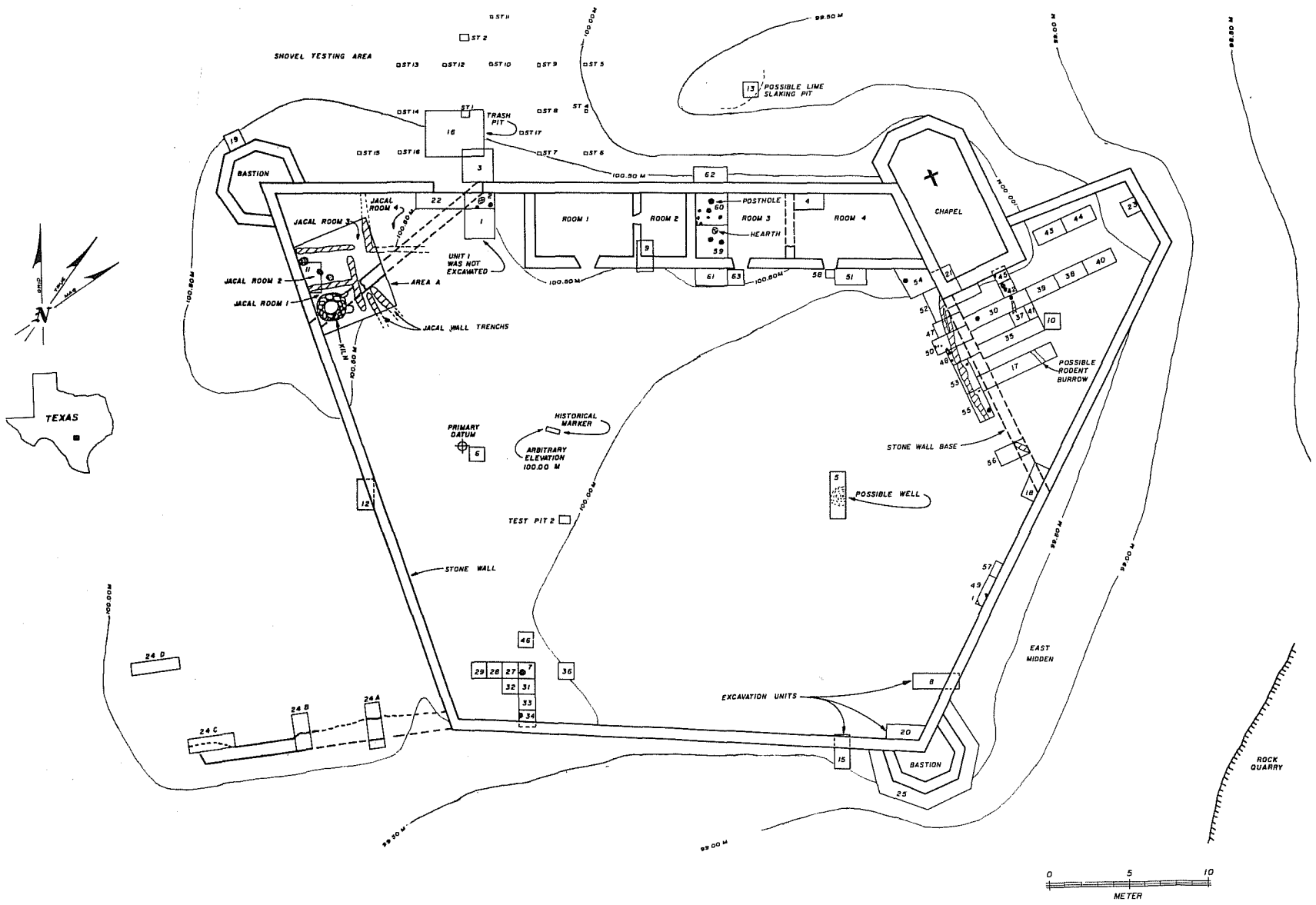


Figure 1. Map of the 1980-1984 Excavations and Features at the Rancho de las Cabras.

4. potholes in the easternmost room on the north wall were carefully mapped, marked with gold-colored sand, and filled with backdirt from the excavations so as to prevent further deterioration of the north wall, as specified.

Additional goals achieved during the 1984 field season are as follows:

5. trenching outside the north compound wall, in alignment with Units 59 and 60, to further examine the relationship of the walls of Room 3 to the original ground surface level outside the compound, accomplished by excavation of Unit 62;
6. determining the vertical extent of historic and prehistoric cultural deposits outside the north compound wall, accomplished in the Unit 62 excavations;
7. trenching along the inside and outside of the east, south, and west walls of the rooms of the north compound wall to define and map potholes, wall junctures, doorways, and styles of stonework indicative of construction phases;
8. definition, mapping, and collection of a trash disposal area (east midden) outside the east compound wall;
9. establishing a concrete base with an iron rebar west of the granite State Historical Marker within the compound, to mark the location (grid coordinates E118 S123) and elevation (100.026 m) of the site primary datum.

METHODOLOGY

A transit was used to reestablish the grid coordinates and to determine elevations based upon the grid and elevations established for the site during the primary field season in 1980. Measurements were made using the metric system. The site grid is oriented in relation to the longest face of the wall which forms the true northwest side of the compound, with the arbitrary grid north established at a right angle to the true northwest compound wall at a bearing of 323°, 38 minutes, and 45 seconds. The same true northwest, or grid north, compound wall was used as a grid coordinate reference with the south face of the wall defining a grid line 105 m south of the grid zero point. There was some difficulty in determining the exact location and coordinates of the site grid used during previous seasons. The grid coordinates used during the five seasons may have varied due to the use of more than one point as the primary datum, a problem of which future investigators should be aware.

Site elevation designations were based relative to an arbitrary, or assumed, elevation of 100.00 m for the concrete footing on the south side of the granite State Historical Marker in the northwestern part of the compound. A primary datum (shown in Fig. 1) was established at grid coordinates E118 S123, at an elevation of 100.026 m. The primary datum location was marked with an iron rebar set into a small concrete base during the 1984 field

season. The location and elevation of area data for excavation units were established using a transit. Ray Smith operated the transit throughout the field season. Most unit elevation readings were taken from an area datum using a line level and string. Directions referred to in this report will relate to the site grid orientation unless it is otherwise stated (i.e., the north compound wall refers to the grid north compound wall).

Selective surface collections were conducted in the eroding east midden area outside the east compound wall (Fig. 2). Seven arbitrary collection areas were established, and artifacts were gathered from each area with chronologically diagnostic items preferred for collection. Two coins dating to the 1700s were also collected from the surface of the north midden area outside the north compound wall.

A total of 14 shovel tests (ST 4-ST 17), which measured 25 cm² and ranged from 22 cm to 86 cm in depth, was dug in the north midden area (Fig. 1). The shovel tests were located at 3-m intervals, oriented with the site grid, and were numbered sequentially in the order in which they were dug. The first shovel test for this season was designated as Shovel Test 4 since Shovel Tests 1-3 were excavated during the 1980 field season (Ivey and Fox 1981:7). Shovel test excavation was accomplished with shovels, though trowels were occasionally used. All excavated material was screened through 1/4-inch hardware cloth and was bagged. With the exception of materials from previous seasons' backfill dirt that overlay some of the shovel tests, fill from the various strata within each shovel test was bagged together; no attempt was made to separate fill from different layers. The depth of each stratum was recorded, however. Most of the shovel tests were dug to depths at which culturally sterile soil could be clearly defined.

Trenches were excavated along both faces of the east, south, and west walls of Rooms 1-4. There were no wall trenches dug along the north compound wall since it was already exposed. The wall trenches measured approximately 25 cm wide and 40 cm deep, though the depth was variable. Excavated material from the wall trenches, which was mainly wall fall rubble, was not screened. The wall trenches were filled with backdirt when field investigations were completed. The structural features of the room and compound walls were noted and mapped by Ray Smith (see Appendix B), a builder and stonemason.

Units varied in size from 1 m², to 1 m x 2 m, to 2 m² and were numbered sequentially in the order in which they were established, continuing the numerical sequence from previous seasons. Units 59-63 were excavated during the 1984 field season. All units were excavated by natural strata, though some of the thicker stratum were subdivided into smaller, arbitrary levels to provide more vertical control of the materials being recovered. Excavation was done mainly with trowels, though shovels were occasionally used. With the exception of backfill from vandals' pits and wall fall rubble, most of the materials excavated from the units were screened through 1/4-inch hardware cloth and were bagged; strata that were not screened are so noted in the unit descriptions. Forms were kept for each unit level, and profiles and plan maps were drawn of strata and features. Logs were kept of photographs taken, which included both color slides and black and white prints. Most of the photography was done by Margaret Greco and Ralph Snavely. Collection bags were assigned sequential numbers, and a collection bag log was kept.

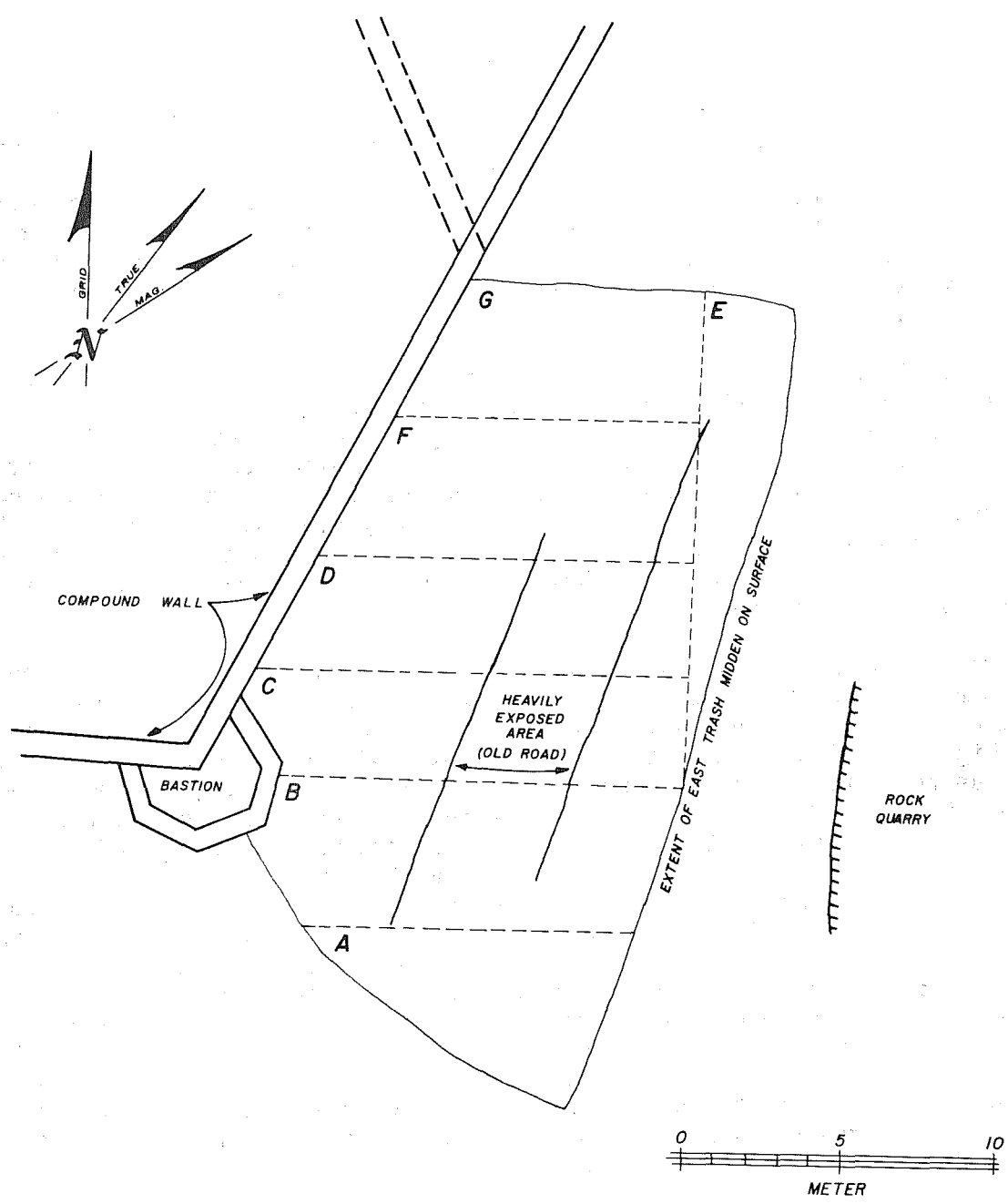


Figure 2. Surface Collection Areas A-G of the East Midden.

The field director, Anna J. Taylor, kept a daily field journal. All records and artifacts are curated at the CAR-UTSA.

THE SITE

Rancho de las Cabras appears to have been established as a livestock ranching operation of Mission San Francisco de la Espada during the mid-1700s (see Ivey 1983; Jones and Fox 1983 for additional historical information). The site of Rancho de las Cabras (41 WN 30) is located on a high terrace overlooking the San Antonio River which is approximately 0.175 km to the east. The site is located in Wilson County, Texas, and is approximately 37.5 km south-southeast of Mission San Francisco de la Espada which is in Bexar County, Texas.

The soil at Rancho de las Cabras is tan to reddish brown to gray brown in color, and is a deep, sandy clay loam that overlies a yellow brown clay loam subsoil. Uncleared upland areas are overgrown with mesquite and thorny underbrush varieties, while live oak, post oak, and some pecan occur in river bottom areas and arroyos. Sparse, short grasses are present in the general area. The land surrounding the site was formerly cultivated, and was subsequently cleared of brush and used for pasture. The stone ruins and the area immediately surrounding them, however, were not disturbed by cultivation or land-clearing activities.

Rancho de las Cabras predominantly consists of an irregularly shaped, four-sided compound constructed of sandstone slabs. The overall measurements of the compound measure, roughly 35.5 m north-south and from 30 m to 58 m east-west (Fig. 1). The compound contains the following features: four contiguous rooms built onto the north compound wall, which together measure a maximum of 5.5 m x 25.5 m; a supposed chapel in the northeast part of the compound which measures 6.0 m x 10.5 m; a possible retaining wall which extends approximately 16.5 m westward from the southwest corner of the compound; and bastions at the northwest and southeast corners of the compound which measure roughly 5.5 m in diameter. Excavations and wall trenching activities during various field seasons revealed evidence of earlier walls, room additions, and different styles of stonework that indicate that the compound may have undergone at least two major renovations (cf. Appendix B, this report). Other aspects of the site include a midden area outside the north and the east compound walls, a limekiln, and evidence of jacal (structures made of upright poles, usually plastered with mud) structures and also possible *ramadas* (arbors or shelters built of post supports with roofs of poles or thatch) and livestock pens inside the compound.

A brief summary of the extent of investigations during the previous four seasons at Rancho de las Cabras by the CAR-UTSA follows. During the first season of investigations in 1980 (Ivey and Fox 1981) the spatial extent of the site's prehistoric and historic deposits was determined through widespread survey and testing. The north midden, the north gateway, the interior of Rooms 2 and 4, various areas of the compound plaza, and areas outside the compound walls were tested. Shovel Tests 1-3 and excavation Units 2-15 were dug (Unit 1 was established but was not excavated), and a site map was made (see Fig. 1, this report, for the location of the shovel tests, test pits,

and units). In 1981 (Ivey 1983), the second field season, excavations concentrated in the north midden and in the northwest compound plaza, though other areas such as the northeast and southwest compound plaza, the southeast and northwest bastions, and a stone wing which extends westward from the southwest corner of the compound wall, were also investigated. Units 16-25, and also a large excavation unit designated as Area A, were dug. The third season, in 1982 (Jones and Fox 1983), was directed toward testing the compound for construction and occupational activity, and testing for burials in the area adjacent to what is believed to be the chapel. These excavations were located in the areas east and south of the chapel, and also in the southwest compound plaza. Two test pits were also dug, one north of the compound to examine the stratification in this area in comparison to that inside the compound, and the other in the west-central compound plaza. Units 27-46 were excavated (Unit 26 was omitted), and Test Pits 1-2 were also dug. In 1983 (Valdez n.d.), the fourth season, investigations were restricted to the northeast, east, and southeast compound plaza. Units 47-58 were excavated.

SURVEY AND SURFACE COLLECTION

East Midden

The surficial extent of the trash disposal area that was first located during the 1980 field season (Ivey and Fox 1981:7) was defined outside the east compound wall (Fig. 2). This east midden extends roughly 13 m to the east from the wall and is about 26 m long north-south. The midden does not appear to extend beyond the limits of the older, original part of the east compound wall, which suggests that this area was used for trash disposal before the renovation and extension of this wall. The location of the midden may also indicate there was a gateway in the east wall or possibly that there were perishable structures such as jacals outside the east compound wall, which would encourage trash disposal in this area.

Part of the east midden was disturbed by wall trenching along the east wall during previous field seasons. An old ranch road that parallels the east wall crosses the length of the midden. Much of the midden area is barren or has scanty vegetation, though some thorny brush grows in the northern part of the midden. The hard-packed ground surface, which is a gray tan sandy loam, gently slopes toward the southwest. The midden area is eroding, especially where it is crossed by the old road, but the rate of erosion appears to be moderate.

Collection Areas A-G

Although some materials were previously collected from the east midden area (Ivey and Fox 1981:7), a selective surface collection was made during this season to obtain additional materials indicative of the period during which the trash was deposited. As a means of providing horizontal control of the collection, the midden area was arbitrarily divided into seven collection areas, designated as A-G. Six of the collection areas extend eastward from

the east compound wall, and the other area extends north-south along the east edge of the midden.

Examination of the materials collected from the east midden indicates that the deposits in this midden date to approximately the same period, the mid 1700s, as the north midden deposits.

SHOVEL TESTS

North Midden

A trash disposal area located outside the north compound wall was tested during the 1980 field season (Ivey and Fox 1981:7). Shovel Tests (ST) 1-3, each measuring 50 cm², were excavated to determine the extent of this midden. They were located along a north-south grid line at distances of 5 m, 10 m, and 20 m, respectively, north of the north compound wall (Fig. 1, this report). Shovel Test 1, which was near the north wall, located the northern limits of a dense trash pit. The part of Shovel Test 1 outside the trash pit had deposits of ceramics, lithics, bone, charcoal, and ash, which extended roughly 20 cm below the modern ground surface. Soil in the upper zone, which had cultural material, was a compacted, brown sandy clay loam, and the lower, culturally sterile zone was a hard-packed, yellow brown sandy clay loam. Shovel Tests 2 and 3 were dug to approximately 30 cm below the modern ground surface, which proved to be the vertical extent of the plow zone in this area. Cultural material was recovered from the plowed zone, which was a hard, tan sandy clay loam. Beneath the plow zone was the culturally sterile zone found in Shovel Test 1. During the 1981 field season (Ivey 1983:10-12) Unit 16 (3.0 m x 3.75 m) was excavated with the intention of completely recovering the contents of the trash pit. The excavations revealed, however, that there were at least four overlapping trash pits rather than just one in this area, and that this series of trash pits overlay additional dense deposits of bone and cultural material. Excavations in Unit 16 were terminated at a depth of approximately 75 cm below ground surface due to the complexity and extent of the cultural deposits.

Vegetation is sparse in the north midden area. The ground surface is hard packed and gently slopes toward the east-northeast. Part of the western midden area is overlain by a deposit of backdirt which resulted from previous excavations. The rate of erosion is slight to moderate.

Shovel Tests 4-17

Shovel Tests 4-17 were located at 3-m intervals along the site grid, in the vicinity of Unit 16 (Fig. 1), and were intended to further define the limits of the trash pits found in that unit. The soils in Shovel Tests 4-17 were similar to those in Shovel Tests 1-3, with the upper zone consisting of a hard, gray tan to gray brown sandy clay loam with cultural material, bone, and charcoal (Fig. 3). The lower, culturally sterile zone was a hard, yellow brown sandy clay loam that became progressively more light in color and more sandy with increased depth.

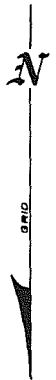
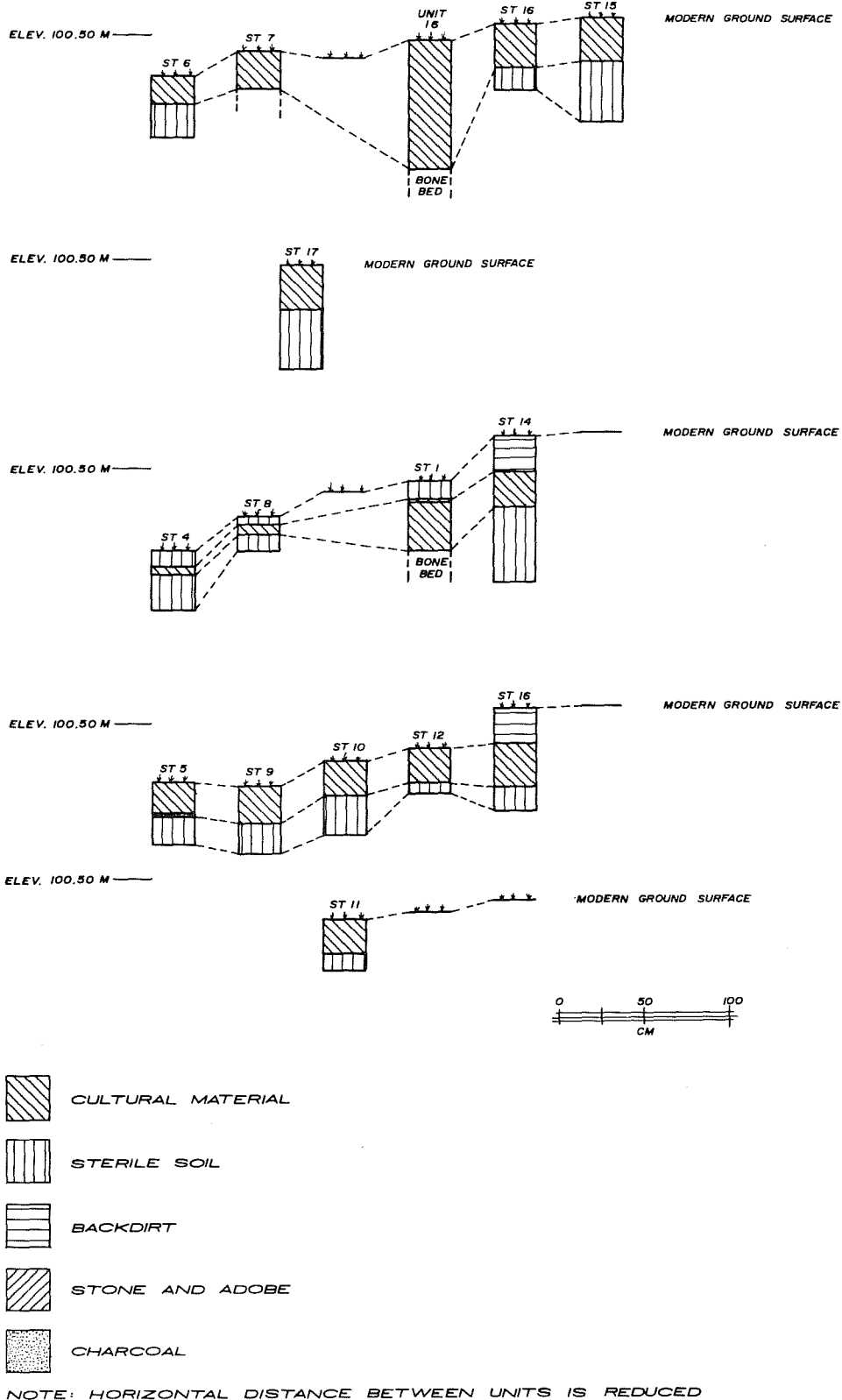


Figure 3. Schematic Profiles of Shovel Tests 1-17 in the North Midden Area.

With the possible exception of Shovel Test 7, Shovel Tests 4-17 had cultural deposits ranging from 6 cm to 25 cm in depth, with an average of roughly 20 cm in depth. None showed evidence of the trash pits found in Unit 16, but rather the cultural zone soil appeared to be the result of sheet wash from the more concentrated trash pit deposits. The cultural deposits were not as concentrated or as deep in Shovel Tests 4-17 as they were in Shovel Test 1 and Unit 16.

Shovel Test 7 was excavated to a depth of 22 cm below modern ground surface. It was not extended any deeper because of the heavy concentration of cultural materials at this depth. It is possible that the trash pits extend eastward into this area, though the lack of similar deposits in nearby Shovel Test 17 does not support this possibility.

The results of the shovel tests in the north midden area indicate that the trash pits found in Unit 16 are fairly limited horizontally. Except possibly for Shovel Test 7, none of the shovel tests dug this season located any extensions of the north midden trash pits. The shovel tests did, however, show that a roughly 20-cm-thick deposit of cultural material is present beyond the trash pit limits, though it may be the result of sheet wash.

EXCAVATION UNITS

Five excavation units, Units 59-63, were investigated this season. The units extended in a north-south line from the compound plaza (Units 61 and 63), to the interior of Room 3 (Units 59 and 60), and to the exterior of the north compound wall (Unit 52; Fig. 1). The location of these units was planned to provide a continual profile of the deposits in the plaza, Room 3, and of the exterior of the compound, which would provide additional information on the stratigraphic and construction sequence in the north compound area. The Room 3 area was chosen for excavation because it appeared, at least superficially, to be the least disturbed of the four rooms along the north compound wall. A large looter's pit located in the eastern part of Room 3 and the western part of Room 4, extended to the east edge of Units 59 and 60, but did not disturb these units.

In the text the unit strata are consecutively numbered in the sequence in which they were dug, with the uppermost stratum designated as stratum 1 and the lower strata numbered subsequently. The numerical designations for the various strata used in the text, however, do not necessarily correspond with those shown in the illustrated profiles in this report. Adjoining units with different profiles were paired together in the illustrations in order to show the relationship of the various strata. This resulted in the assignment of additional numerical designations for some of the illustrated strata. As a means of correlating the numbers used for each stratum, the numerical designations used in the illustrations are given in parenthesis following the introduction of each stratum in the text.

Units 59 and 60

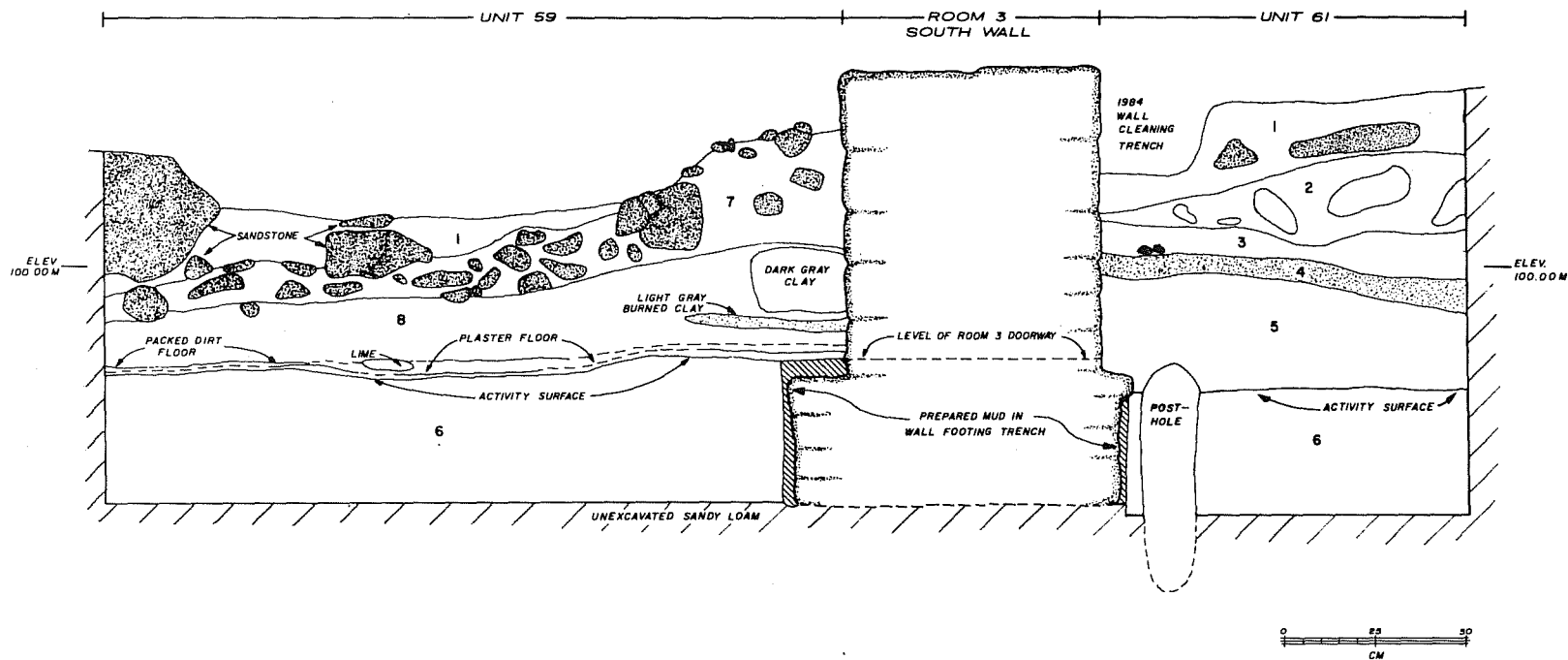
Units 59 (2.0 m x 2.1 m) and 60 (2.0 m x 2.1 m) were located against the west wall of Room 3, and extended from the north wall to the south wall, the width of the room. The internal dimensions of Room 3 are 4.2 m x 6.1 m. Units 59 and 60 were excavated to a depth of 99.45 m with the exception of a 50-cm² test pit in the southwest corner of Unit 59, and another 50-cm² test pit in the northeast corner of Unit 60. These test pits were excavated to 99.25 m in Unit 59, a depth of approximately 1.28 m below modern ground surface, and to 99.20 m in Unit 60, a depth of approximately 1.25 m below modern ground surface. Excavations of these units were discontinued when the base of the wall footing for Room 3 was reached; cultural materials such as lithic debitage and mussel and snail shells were still being recovered when excavations ended at this level. Four distinct strata, in addition to two floors and an occupation surface, were identified in these units (Figs. 4 and 5). A large looter's pit in the central part of Room 3 extended to the eastern edge of both units.

The first stratum (Fig. 4, stratum 1; Fig. 5, stratum 1) consisted of a tan sandy loam 23 cm to 74 cm thick, with large and small pieces of sandstone and, in Unit 59, lenses and flecks of lime. This stratum was thickest in the western part of the units and sloped downward to the east. Because this stratum contained wall fall rubble and backdirt from the looter's pit, the fill was not screened. Cultural materials sighted during excavation of the stratum were collected, however. Unglazed, lead-glazed, tin-glazed, and stoneware sherds; metal, lithic debitage, bone, and mussel shell were recovered from stratum 1.

Stratum 2 (Fig. 4, stratum 7; Fig. 5, stratum 2) consisted of a brown sandy loam, less than 1 cm to 26 cm thick, with sandstone. In Unit 59, this stratum was very thin except in the northeast corner, while it was much thicker in Unit 60. A pothole, measuring approximately 0.65 m x 1.25 m, was in the northwest corner of Unit 60. This disturbance extended through all the excavated strata in the unit and also went through the north wall of Room 3 into the southwest corner of Unit 62. Unglazed, lead-glazed, stoneware, and porcelain sherds; metal, lithics, bone, and mussel shell were recovered from stratum 2.

The third stratum (Fig. 4, stratum 8; Fig. 5, stratum 3) consisted of a reddish tan sandy loam, from 6 cm to 40 cm thick, with a few small pieces of sandstone. Lenses and clods of gray brown adobe, lenses of light tan limy soil, pieces of lime, and flecks of charcoal occurred in this stratum. The adobe was thickest by the central part of the Room 3 west wall. Stratum 3 contained unglazed, lead-glazed, tin-glazed, stoneware, and porcelain sherds; glass (including one glass bead), metal, lithics, bone, mussel and snail shell.

Beneath stratum 3 was a 2 cm to 7 cm thick layer of tan, fine sandy loam with flecks of charcoal and lime which overlay a grayish tan, hard-packed earthen floor. This stratum (which is not shown in the illustrated profiles) was most evident in Unit 59 during excavation but was barely distinguishable in the profile of the unit. Erosion appeared to have damaged or destroyed much of this thin layer in Unit 60.



STRATA

1. TAN SANDY LOAM WITH SANDSTONE BLOCKS AND STONE; LOOTERS' BACKDIRT AND WALL FALL
2. GOLD CLAY WITH GRAY CLAY POCKETS
3. TAN SANDY LOAM WITH WHITE PRECIPITATE
4. DARK TAN, COMPACTED, FINE TEXTURED DUNG WITH CHARCOAL FLECKS
5. DARK TAN, BLOCKY DUNG
6. RED BROWN TO GRAY BROWN COMPACTED SANDY LOAM OVERLAIN WITH A FINE LAYER OF DUST OR SMALL GRAVELS
7. RUBBLE FROM WALL FALL WITH BROWN SANDY LOAM
8. REDDISH TAN SANDY LOAM WITH SMALL STONES, BONE, CHARCOAL FLECKS, CLAY CLODS, AND ARTIFACTS


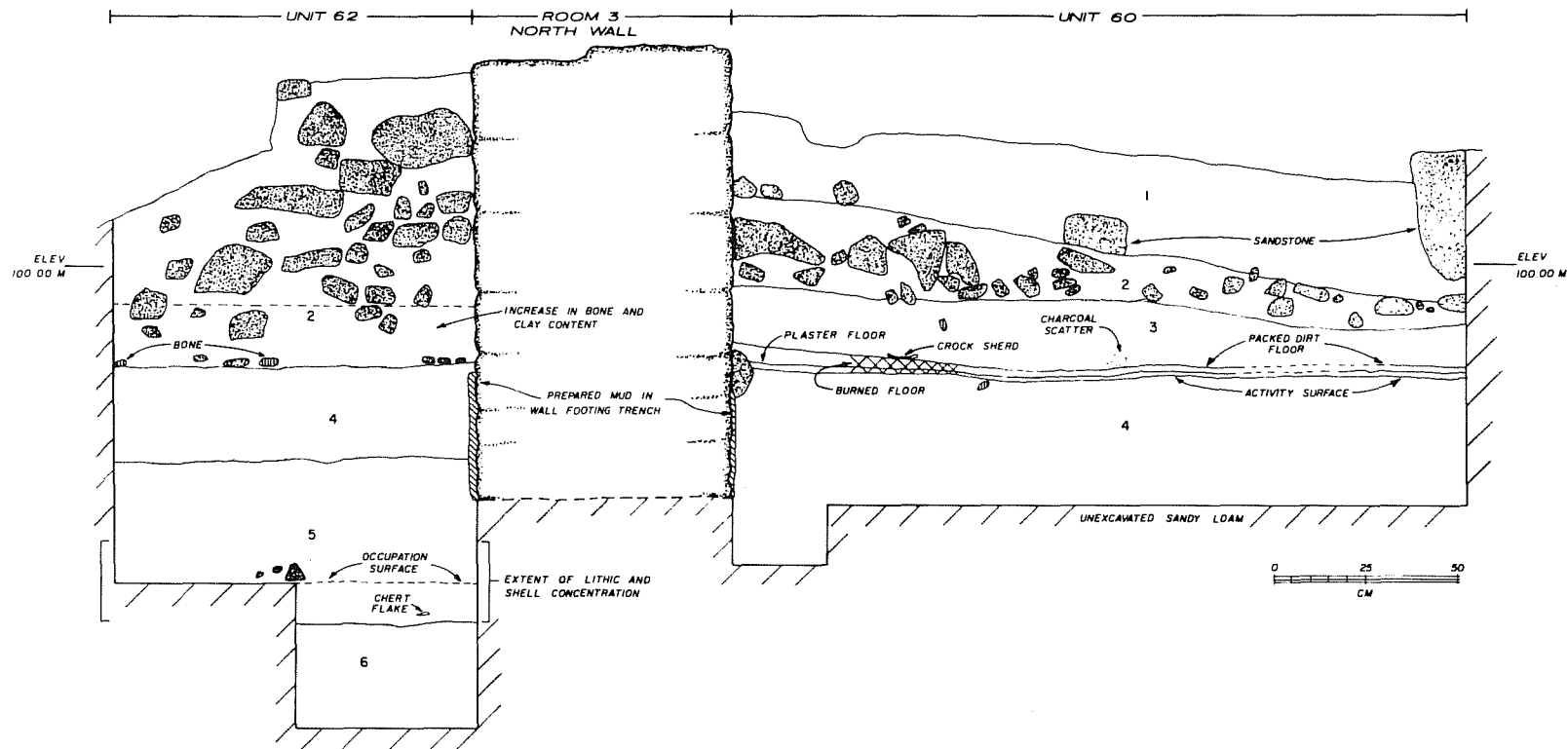
 DENOTED AREA CONTAINS CHARCOAL

Figure 4. East Profile of Units 59 and 61.



STRATA

1. TAN SANDY LOAM WITH SANDSTONE BLOCKS AND STONES, LOOTERS' BACKDIRT AND WALL FALL
2. RUBBLE FROM WALL FALL WITH BROWN SANDY LOAM
3. REDDISH TAN SANDY LOAM WITH SMALL STONES, BONE, CHARCOAL FLECKS, CLAY CLODS, AND ARTIFACTS
4. RED BROWN TO GRAY BROWN COMPACTED SANDY LOAM OVERLAIN WITH A FINE LAYER OF DUST OR SMALL GRAVELS
5. COMPACTED RED BROWN SANDY LOAM
6. COMPACT REDDISH TAN SANDY LOAM WITH PRECIPITATE AND CALCAREOUS CONCRETIONS

Figure 5. East Profile of Units 60 and 62.

The hard-packed earthen floor was slightly undulating rather than level, and had an elevation of 99.71 m to 99.73 m (Fig. 6). It was best preserved in Unit 59; in Unit 60, only a few patches of this surface remained, with the rest appearing to have been destroyed by erosion. The surface of the remaining patches of floor was pitted as though by exposure to rainfall and insect activity. A few upper stones of the Room 3 west wall footing were visible at the level of this floor. Features associated with the dirt floor include two burned areas, one of which adjoined a pit measuring 36 cm in diameter and 9 cm in depth, and was filled with ashy soil. Other floor features were a 23-cm x 30-cm pit, 5 cm in depth, which contained the following: a large vertebra, a patchy area of lime at the base of the Room 3 west wall immediately above and also on the floor, and an area of patchy gold clay that was incorporated into the floor. Concentrations of small mammal bone, the result of rodent activity, were found in the southern part of Unit 59. Unglazed, lead-glazed, tin-glazed, and stoneware sherds; metal, bone, and mussel and snail shell were associated with the dirt floor.

From 1 cm to 6 cm below the earthen floor was a plaster floor at an elevation of 99.67 m to 99.73 m, which had an uneven surface (Fig. 7). The soil between the earthen and plaster floors was the same as that which composed the surface of the earthen floor, a hard-packed, gray tan sandy loam. Though the plaster floor was only 1 cm thick or less (usually less), it appeared to have been formed of multiple layers of lime or a similar material. What seemed to be patches of plaster and small stones had been applied to the surface underlying the plaster floor. Thicker, more white concentrations of plaster were located at the base of the south and west walls and across the southwest corner of Room 3. Much of the plaster floor in Unit 60 appeared to have been eroded; remnant patches of the floor plaster were generally thin and pitted in this unit. The top of the Room 3 south and west wall footing was exposed at this level, and the floor plaster appeared to have once covered the footing stones. A feature associated with the plaster floor in the southwest corner of Room 3 was a triangular depression that appeared to be slightly stepped. This depressed area was plastered, so it was not the result of postabandonment activities, nor did it result from the collapse of a rodent burrow beneath the plaster floor. There were rodent burrows in the southern part of Unit 59 and also in the eastern part of Unit 60, predominantly below the plaster floor, though some rodent activity was evident immediately above the floor. The pits and burned areas associated with the overlying earthen floor continued into the plaster floor and the underlying occupation surface. Unglazed, lead-glazed, and tin-glazed sherds; metal (including a musket ball and a sheet of copper), lithics, bone, mussel and snail shell, were found with the plaster floor.

Beneath the plaster floor was a thin layer of sand and pebbles overlying a hard-packed, stained surface of gray brown sandy loam which was the surface of stratum 4 (Fig. 8). Charcoal flecks were packed into this occupation or activity surface, which had an elevation of 99.64 m to 99.73 m. In some places plaster for the overlying floor had been directly applied onto the surface, and there was a plaster stain by the Room 3 south wall footing. Nine postholes of varying diameters and depths were associated with this surface. The dimensions of the postholes are as follows:

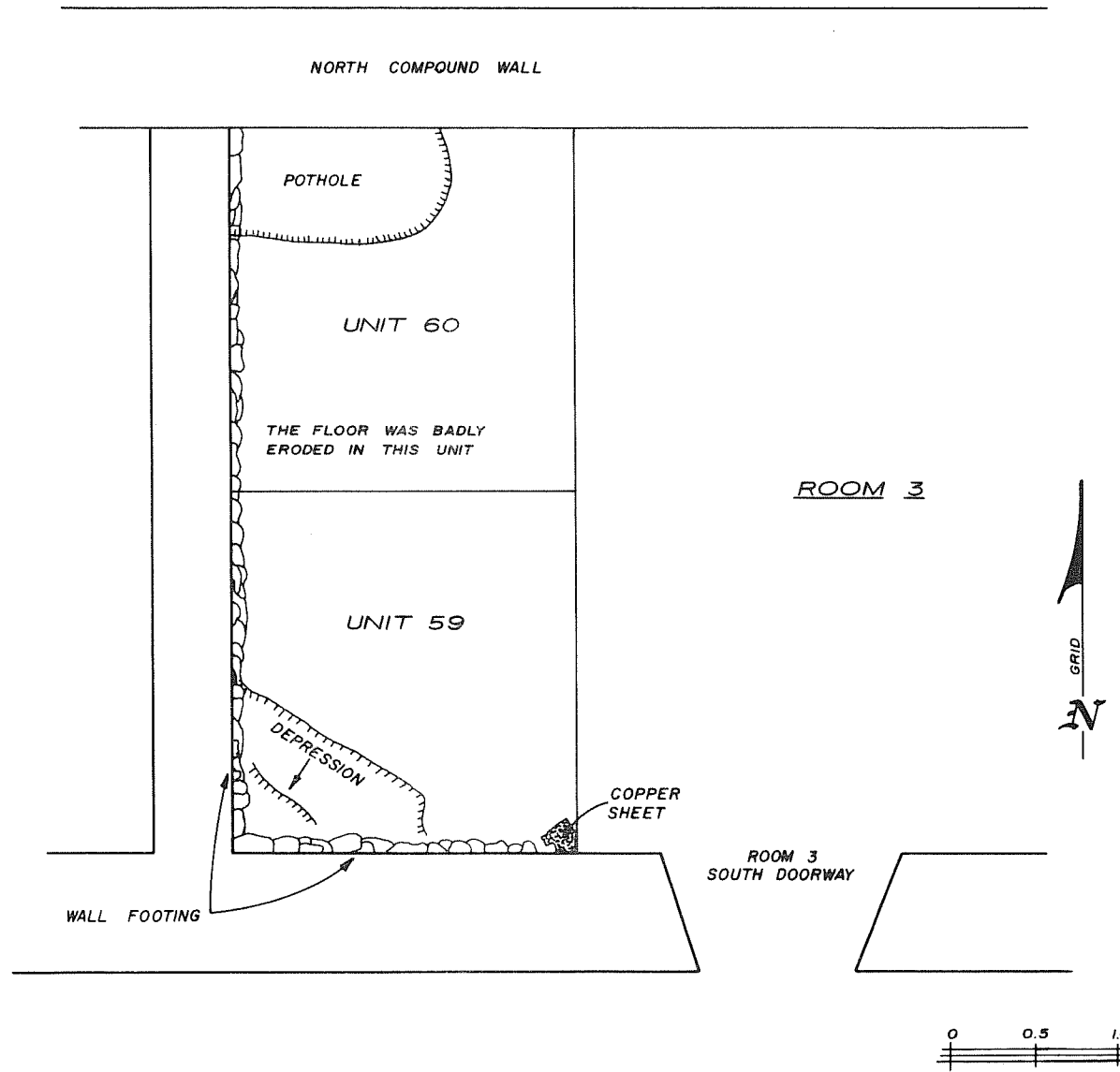


Figure 6. Plan of Features Associated with the Upper, Hard-Packed Floor in Units 59 and 60.

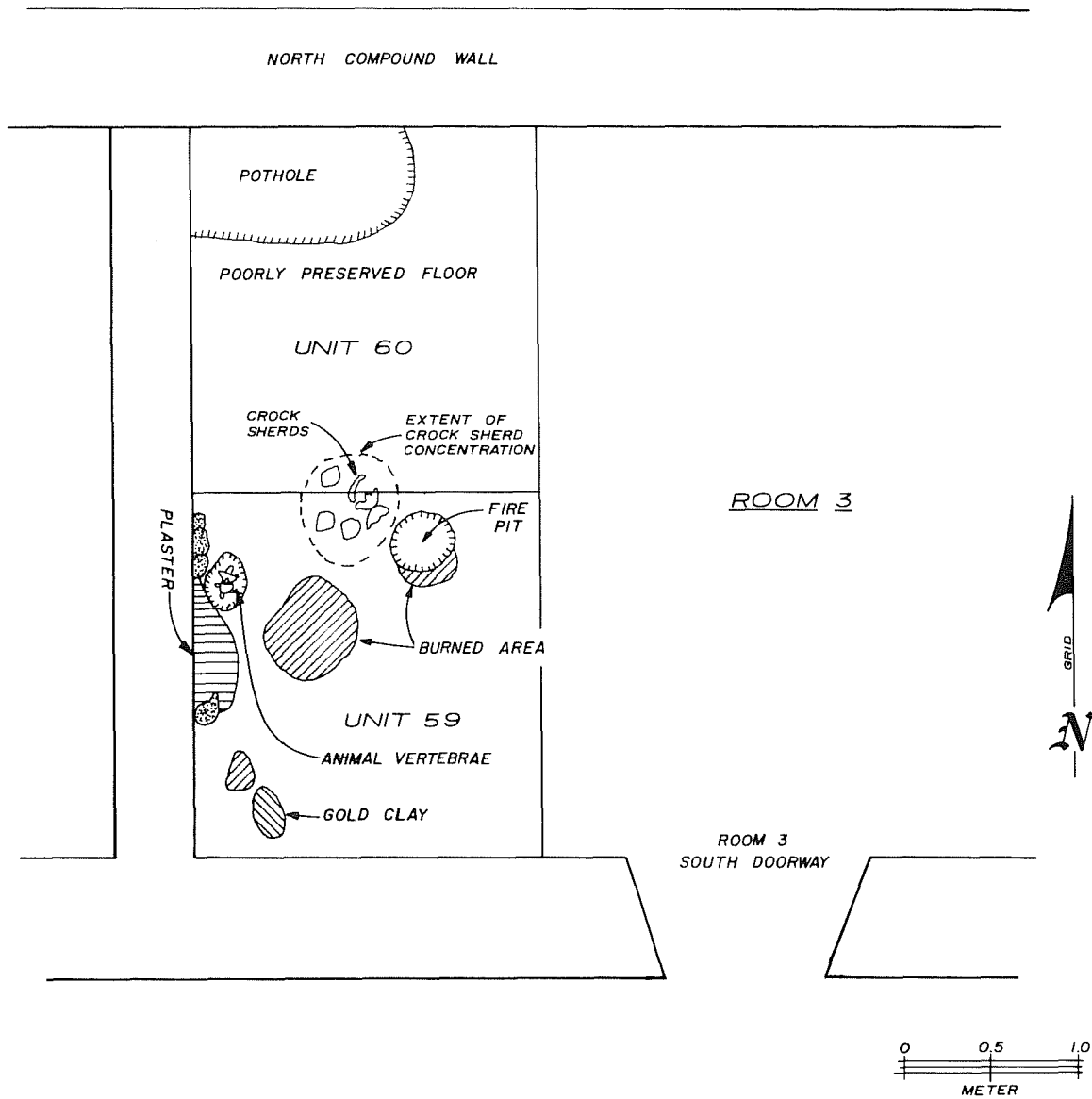


Figure 7. Plan of Features Associated with the Lower, Plaster Floor in Units 59 and 60.

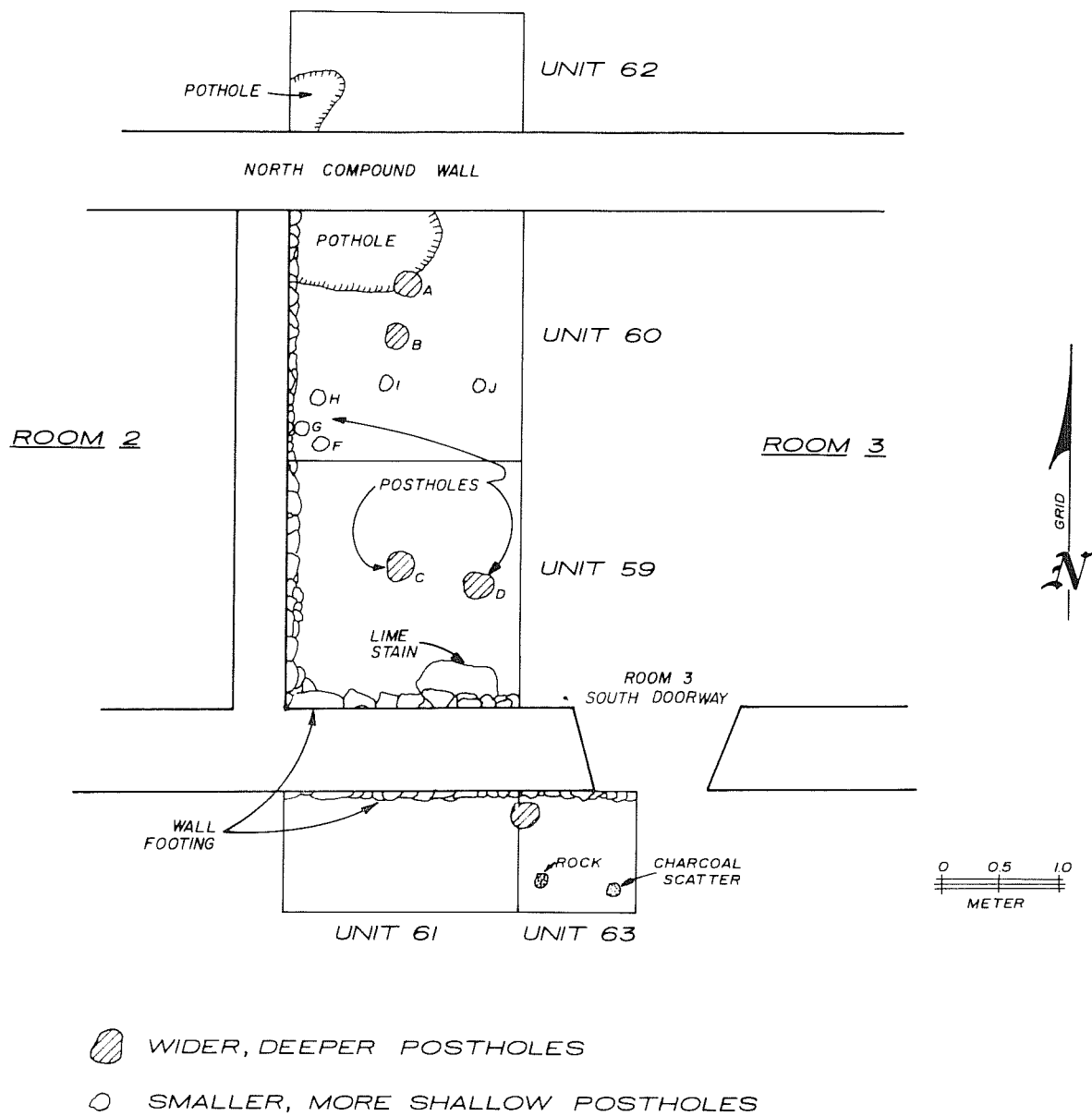


Figure 8. Plan of Features Associated with the Outdoor Activity Surface in Units 59-63.

Posthole	Diameter	Depth
A	18 cm	41 cm
B	17 cm	40 cm
C	20 cm	40 cm
D	20 cm	40 cm
E	15 cm	10 cm
F	13 cm	29 cm
G	13 cm	16 cm
H	16 cm	21 cm
I	14 cm	20 cm

The postholes were filled with fine, gray tan loam, and with small stones which were probably used to help support the posts. Four of the postholes (A-D) were similar in size, and of these four postholes, three (B-D) were capped with plaster and small stones; posthole A was partially disturbed by a looter's pit and may also have been capped. The bottom of postholes A-D had been filled with a dark gray mud before the posts were inserted. The other five, smaller postholes (F-I) were concentrated by the west-central wall of Room 3, and the upper 1 cm to 2 cm of fill in two of these postholes (G,H) consisted of loose, fine lime. The upper wall footing stones and the edge of the wall footing trenches were clearly defined at the level of the occupation surface. The wall footing measured approximately 52 cm from top to bottom. The south and west wall footing extended from 3 cm to 17 cm outward from the walls. The width of the west wall footing decreased from south to north, and became almost imperceptible where the west and north walls abutt. The edge of the footing trenches extended approximately 1 cm or less away from the wall footing. Mortar used for the wall footing consisted of a hard, dark gray brown loam. The edge of the wall footing trench was defined by the contact zone of this mortar with the surface of the stratum 4 occupation surface. Since the walls above the wall footing were not protected from erosion, the mortar for much of the upper walls had weathered away, so that the type of mortar used in the above-ground walls could not be compared with that in the wall footing trenches. Unglazed sherds, metal (including a musket ball), lithics, bone (including a utilized bone tool), mussel and snail shell were associated with the occupation surface.

Stratum 4 (Fig. 4, stratum 6; Fig. 5, stratum 4) consisted of a gray brown to red brown sandy loam that was more than 55 cm thick; excavations did not extend to the bottom of this stratum. Soil color gradually graded from gray brown in the upper part of the stratum, downward to a red brown. Units 59 and 60 were completely excavated to a depth of 99.45 m; two 50-cm² test pits located in the northwest and southwest corners of Room 3 were then dug to 99.20 m and 99.25 cm, respectively, to expose the bottom of the wall footings. What appeared to be two small postholes were observed at 99.40 m to 99.44 m, a depth of 29 cm below the occupation surface of stratum 4. These possible postholes may have originated at a higher level, although since the surface of stratum 4 was examined for postholes they probably originated beneath that occupation surface. The holes measured roughly 5.5 cm in diameter and 10 cm in depth, and were located in the north-central and south-central parts of Unit 59. Unglazed sherds and a lead-glazed sherd, lithics, bone, mussel and snail shell were found in stratum 4; the lead-

glazed sherd was probably either from disturbed context, a rodent burrow, or from the mortar in the wall footing in stratum 4.

Observations

In Units 59 and 60, the rubble-filled deposits in strata 1, 2, and 3, represent postabandonment refuse disposal, wall fall, and roof fall (in strata 3), and also activity by looters. The hard-packed dirt floor appears to have resulted from the accumulation of soil upon the underlying plaster floor. Although the plaster floor may have been replastered at some time, this practice was obviously discontinued, and soil was allowed to accumulate upon the plaster floor as Room 3 continued to be occupied. It is possible that some of the features associated with the dirt floor, such as the fire pit and the pit which contained a vertebra, originated with the plaster floor and were continuously used during the occupation of Room 3. The plaster and stone capping on three of the four larger postholes associated with the occupation surface beneath the plaster floor was probably added during the construction of Rooms 1-4, just before the plaster floor was added. The occupation surface of stratum 4 was associated with the early occupation of the compound, prior to the construction of Rooms 1-3; the postholes associated with this surface are similar to those found in other, previously excavated areas of the site and may have contained support posts for animal pens (see Ivey 1983:28; Jones and Fox 1983:47). The nature of the two vertical holes in stratum 4 is unknown; it is possible that they were postholes, though they might also be insect burrows. The presence of lithic debitage and mussel and snail shell in stratum 4, beneath the occupation surface, are evidence of a precompound utilization and/or occupation of the site.

Two other units, Units 4 and 9, were excavated inside rooms along the north compound wall (Ivey and Fox 1981:5, 16, 18, 20, 22, Fig. 4; also see Fig. 1, this report). Unit 4 was located in the northwest corner of Room 4, and Unit 9 was in the southwest corner of Room 2. The stratigraphy in Unit 4 was quite similar to that in Units 59 and 60. The upper strata were composed of wall fall rubble, looter's backdirt, and also roof fall material. Beneath these deposits was a silty layer that overlay a plaster floor. There was no evidence of a hard-packed dirt floor, as was found in the Room 3 units, above the plaster floor in Room 4. The thickness of the Room 4 plaster floor was approximately 3 cm thick, much thicker than the plaster floor exposed in Room 3. There was a scatter of charcoal in Unit 4 on the same level as the plaster floor by the north compound wall. Beneath the plaster floor in Room 4 was a thin layer of soil that covered a hard-packed dirt "floor," which correlates with the occupation surface found beneath the Room 3 plaster floor in Units 59 and 60. The Unit 4 excavations did not extend below this dirt "floor" level. Unfortunately, Unit 9 was located in a badly disturbed part of Room 2 and little could be determined about the stratigraphy. Excavations in Unit 9 may have extended to the occupation surface referred to above before investigations were terminated.

Units 61 and 63

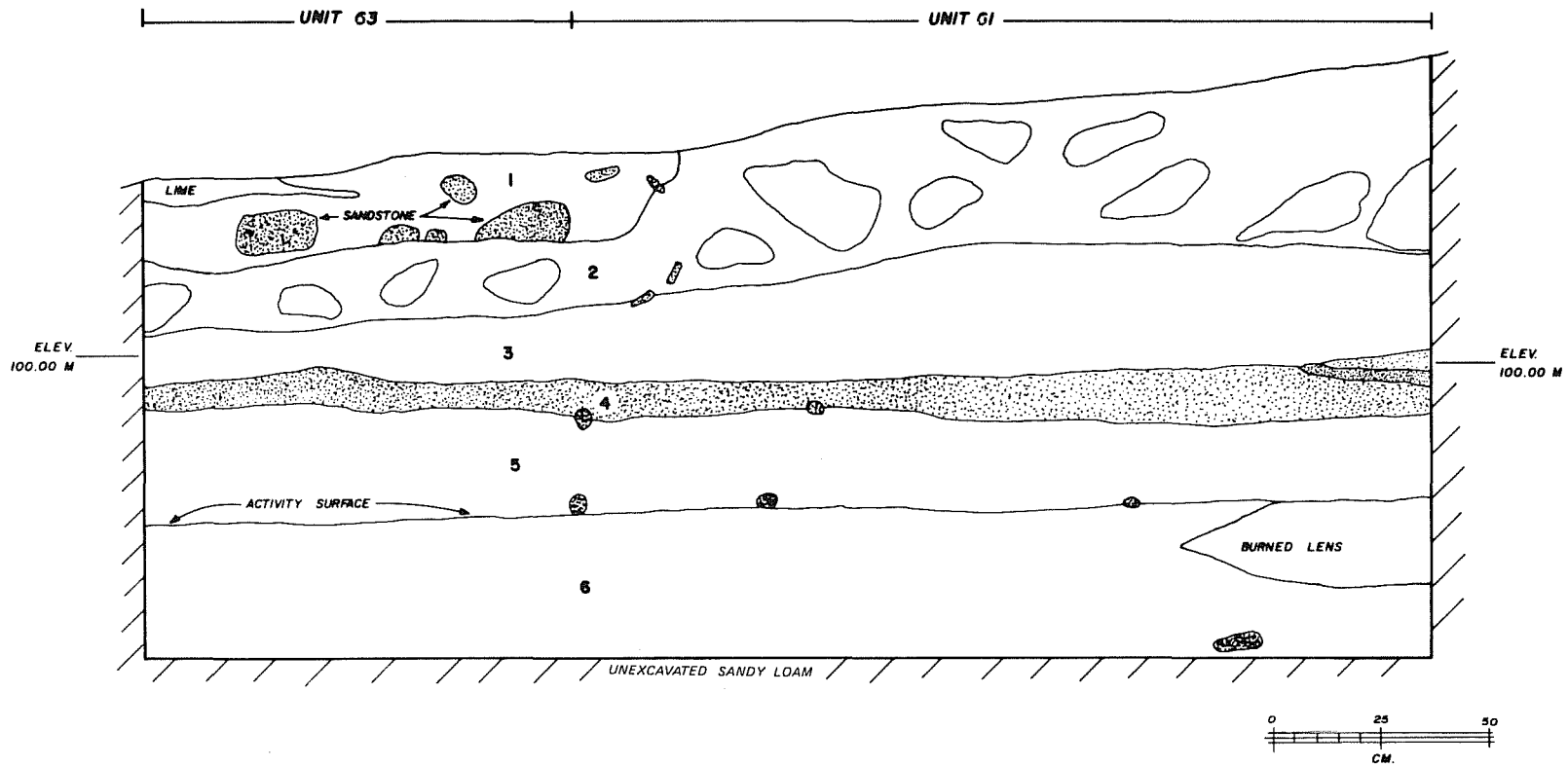
Units 61 (1.0 m x 2.0 m) and 63 (1.0 m²), two adjoining units, were located against the south face of the Room 3 south wall, in the northern courtyard area (Fig. 1). Unit 61 was aligned east-west with Units 59 and 60, and Unit 63 extended eastward from Unit 61 to include the western part of the Room 3 doorway face. Unit 61 was excavated to 99.30 m, a depth of approximately 1.41 m below modern ground surface, and Unit 63 was excavated to 99.32 m, a depth of approximately 1.02 m below modern ground surface. A 50-cm² test pit was excavated in the northwest corner of Unit 61 to 99.10 m, an additional depth of 20 cm. Excavations in these two units were discontinued when the base of the Room 3 wall footing was exposed. Six strata and also an outdoor occupation surface were recognized in these units (Figs. 4 and 9).

Units 61 and 63 were covered with wall fall rubble and backdirt from looters' pits (Fig. 4, stratum 1; Fig. 9, stratum 1). Beneath this rubble and disturbed soil was a layer of friable, loosely packed gold clay with gray clay pockets of uniform composition. This first undisturbed stratum, designated stratum 1 (Fig. 4, stratum 2; Fig. 9, stratum 1), was from 11 cm to 70 cm thick. It was thickest in the southern side of both units and became much thinner on the northern side of the units, by the south wall of Room 3. The stratum 1 soil was not screened, but cultural material seen during excavation was collected. Only mussel shell was recovered from stratum 1.

Stratum 2 (Fig. 4, stratum 3; Fig. 9, stratum 3) consisted of a tan, fine sandy to silty loam with mottling and concretions of a calcareous material. This stratum was from 10 cm to 24 cm thick, becoming thinner toward the eastern part of Unit 63. The lower part of stratum 2 in Unit 61 was screened, and all of stratum 2 was screened in Unit 63. All of the underlying strata in both units were screened. Three large pieces of sandstone and four smaller pieces of sandstone were found in the northern part of both units, along the Room 3 south wall. These stones were resting upon the surface of stratum 3, and resemble the stones used for wall construction. Unglazed, tin-glazed, and porcelain sherds; glass, metal (including lead shot), lithics, bone (including one modified and utilized piece), and mussel and snail shell were recovered from stratum 2.

Stratum 3 (Fig. 4, stratum 4; Fig. 9, stratum 4), from 4 cm to 15 cm thick, consisted of a fine textured, compact dung of uniform consistency with a few charcoal flecks occurring throughout the stratum. In Unit 61, stratum 3 was overlain with a 4-cm to 12-cm-thick layer of fine, loose dust that became thinner to the east until it was not discernible in most of Unit 61. In Unit 61, strata 3 and 4 were not recognized as different layers and were combined during excavation; they were differentiated during the subsequent excavation of Unit 63, however. Stratum 3 yielded unglazed sherds, metal (a shell cartridge), glass, lithics, bone, mussel and snail shell.

Stratum 4 (Fig. 4, stratum 5; Fig. 9, stratum 5), from 17 cm to 30 cm thick, was composed of a more loosely packed, blocky dung than stratum 3. Flecks of charcoal were present near the bottom of this deposit. The top of the south wall footing and part of the south face of the doorway of Room 3 (Fig. 10) were exposed in the lower part of this stratum. The wall footing measured



STRATA

1. TAN SANDY LOAM WITH SANDSTONE BLOCKS AND STONES
2. GOLD CLAY WITH GRAY CLAY POCKETS
3. TAN SANDY LOAM WITH WHITE PRECIPITATE
4. DARK TAN, COMPACTED, FINE TEXTURED DUNG WITH CHARCOAL FLECKS
5. DARK TAN, BLOCKY DUNG
6. RED BROWN TO GRAY BROWN COMPACTED SANDY LOAM OVERLAIN WITH A THIN LAYER OF DUST OR SMALL GRAVELS


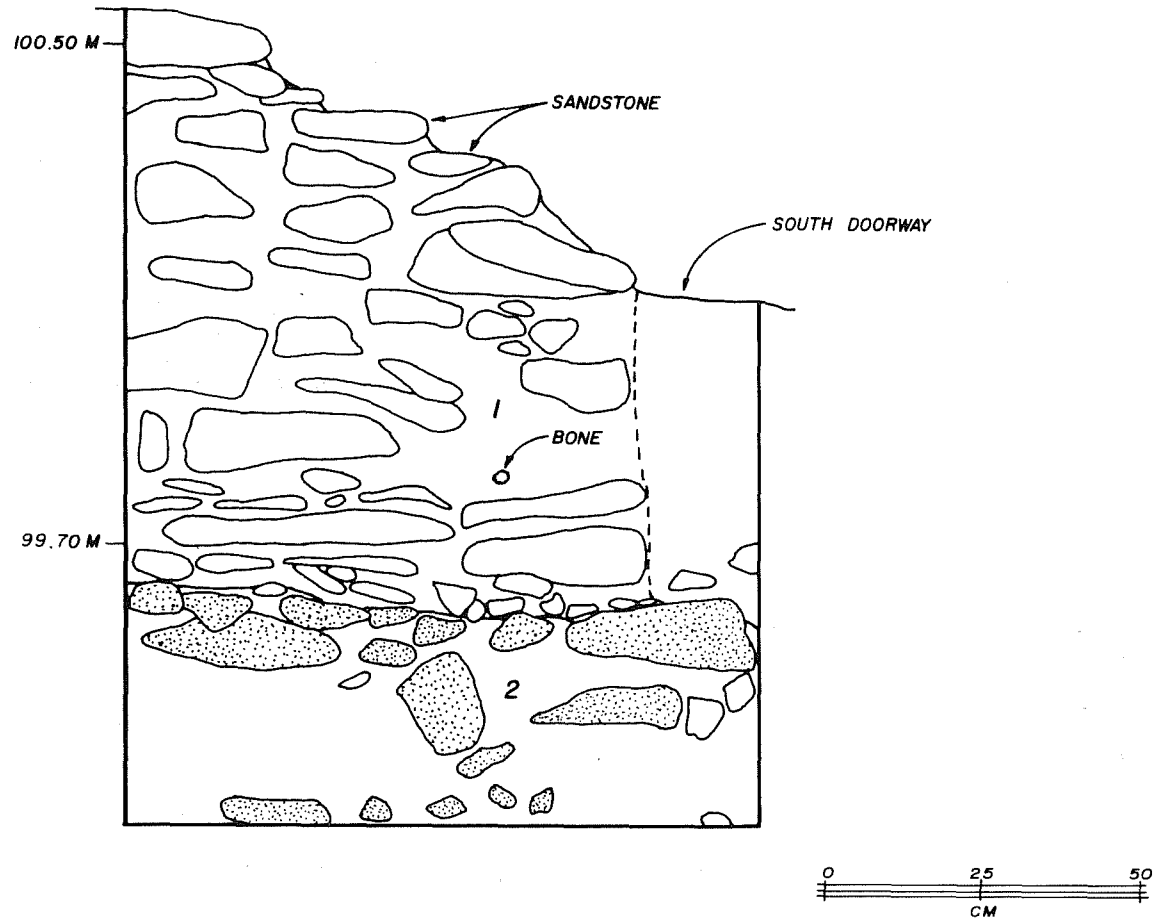
 DENOTED AREA CONTAINS CHARCOAL

Figure 9. South Profile of Units 61 and 63.




- 1. SOIL ASSOCIATED WITH WALL ; LIGHT, SANDY, TAN
 - 2. PREPARED WALL FOOTING ; PACKED DARK GRAY CHARCOAL
-  STONES EXTENDED PAST WALL PROPER

Figure 10. North Profile of Unit 63 with Wall and Doorway Detail.

roughly 40 cm from top to bottom, and extended 4 cm to 6 cm from the wall. The width of the footing and the size of the upper footing stones decreased from west to east as they neared the Room 3 doorway. The footing trench extended approximately 1 cm or less out from the wall footing. Also, the mold of a post stump, which originated at the surface of stratum 5, was present in the bottom of stratum 4. Unglazed, lead-glazed, tin-glazed, and porcelain sherds; glass, metal, lithics, bone, mussel and snail shell were recovered from stratum 4.

Beneath stratum 4 was stratum 5 a hard-packed, gray sandy loam surface 99.59 m to 99.73 m below the top of the wall footing, with flecks of charcoal (Fig. 4, stratum 6; Fig. 9, stratum 6). This surface appeared to be a continuation of the occupation or activity surface of stratum 4 in Units 59 and 60 (Fig. 8). A posthole measuring 17 cm in diameter and 50 cm in depth was located in the west-central part of Unit 63. The interior of the posthole was hollow rather than filled, and contained a few splinters of wood. This hollow continued above the posthole, and appeared to be the cast of a post stub which extended into the overlying stratum 4. The bottom of the posthole had been filled with mud before the post was inserted. A burned area, which originated on the stratum 5 occupation surface, was located in the southwest corner of Unit 61 and appeared to extend beyond the limits of Unit 61; no charcoal or other burned material was directly associated with this burned area. A concentration of charcoal bits was found, however, on the occupation surface in the east-central part of Unit 63; the surface around the charcoal concentration showed no evidence of burning. A fist-sized piece of sandstone was also lying on this surface. Unglazed, lead-glazed and tin-glazed sherds; lithics, bone, and mussel and snail shell were associated with the occupation surface of stratum 5.

The soil of stratum 5 (Fig. 4, stratum 6; Fig. 9, stratum 6) consisted of a gray brown to red brown sandy loam like that found in stratum 4 of Units 59 and 60. This stratum was excavated to roughly 99.30 m in both units, which was approximately 1.04 m below modern ground surface; excavations did not extend to the bottom of this strata. Additionally, a 50-cm² test pit was excavated to 99.10 m in the northwest corner of Unit 61, to expose the base of the Room 3 south wall footing. The charcoal flecks present in the strata 5 occupation surface were noted to occur to a depth of roughly 10 cm. Lithics, bone, and mussel and snail shell were associated with stratum 5.

Observations

The surface rubble and disturbed fill in Units 61 and 63 were due to wall fall and looter activity. The gold clay which formed stratum 1 was practically sterile and uniform, and may be backdirt from excavations within the compound. It was speculated that a deep feature such as a well may have been dug in this vicinity, leaving a thick layer of sterile gold clay backdirt; it should be noted, though, that none of the archaeological excavations at the site have encountered a stratum of basal gold clay. The tan, silty loam of stratum 2 had few artifacts and appears to have been formed after the site was last utilized. The fine sandy layer of sand between strata 2 and 3 appears to be aeolian deposits. The sandstone on the surface of stratum 3 is probably wall fall rubble. The two dung layers, strata 3 and 4, appear to

have been deposited during two different episodes, though the interval between the two depositional episodes would have been short-term based upon the lack of soil present between the two strata. These thick dung deposits indicate that livestock was being kept inside the compound during the early postabandonment period. The high amount of bone found in the dung indicates that the livestock was also butchered inside the compound. The hard-packed surface of stratum 5 is the same occupation surface that occurred in the other excavation units. The posthole that occurs in this surface may either be associated with the postholes in the Units 59 and 60 occupation surface, or perhaps it was associated with the Room 3 doorway, possibly as a support post for a **ramada**. The post stub cast in the stratum 4 dung indicates that the post remained intact until after the postabandonment period when the compound was used to hold livestock. The burned area of the occupation surface may be the outer edge of a fire pit, and the charcoal scatter on this surface may also be associated with it. The lithic debitage, mussel and snail shell in stratum 5 relate to a precompound component found in the other excavation units this season.

Deposits of dung like those found in Units 61 and 63 were also present in other units in the northeast, east, southeast, and southwest areas of the compound interior during previous seasons (Ivey and Fox 1981; Ivey 1983; Jones and Fox 1983; Valdez n.d.). These layers of dung were absent, however, from units within the central, west, and northwest parts of the compound and also from those dug inside Rooms 1-4. The location of the dung deposits suggests that the livestock was restricted to certain areas of the compound. Postholes similar to those in the occupation or activity surface of Unit 63 and of Units 59 and 60, were present in previously dug units throughout the compound interior (Fig. 1).

Unit 62

Unit 62 (1.0 m x 2.0 m) was located against the north face of the north compound wall, outside the compound (Fig. 1). It was aligned north-south with Units 59-61, and was of the same width as those units. Unit 62 was excavated to 99.10 m, and a 50-cm² test pit in the southeast corner of the unit was excavated to 98.70 m. The depth of excavations in the unit was 1.24 m below modern ground surface, and 1.64 m below modern ground surface in the test pit. Three distinct strata with four substrata, an occupation surface, and an activity surface were identified in this unit (Fig. 5). This was the only unit excavated this season in which sterile subsoil was reached; the depth of the sterile subsoil was approximately 99.0 m, 1.34 m below modern ground surface. A looter's pit, which extended from Unit 60 through the north compound wall, was in the southwest part of Unit 62.

Stratum 1 (Fig. 5, stratum 2), from 40 cm to 76 cm thick, consisted of wall fall rubble with sandy to silty gray tan loam. This stratum was thickest in the southern part of the unit, and was banked against the north compound wall. The upper part of the layer, substratum 1a, roughly 25 cm to 61 cm thick, contained very little cultural material and was mainly composed of sandstone rubble with what appeared to be aeolian soil. The lower part of the layer, substratum 1b, approximately 15 cm thick, had a higher clay content and contained more cultural material and bones. Substratum 1a was not

screened, though any cultural materials observed were collected. Substratum 1b was screened, and the materials were collected separately from substratum 1a. No distinction could be made between the two substrata when the unit profiles were observed, though differences between them were noted during excavations. Only bone was recovered from substratum 1a. Unglazed and lead-glazed sherds, metal (a shotgun shell cap), bone, mussel and snail shell were recovered from substratum 1b.

The surface of stratum 2 (Fig. 5, stratum 4), a gray brown sandy loam, was at 99.70 m and correlates with the compound occupation or activity surface found in Units 59-61 and 63 (Fig. 8). No cultural material or features were associated with this surface.

Stratum 2 (Fig. 5, stratum 4) consisted of a gray brown to red brown sandy loam, and was approximately 26 cm thick. A few small pieces of sandstone were in this layer. The soil in stratum 2 was less compact than in the underlying strata. The dark gray mortar in the north edge of the footing trench for the north compound wall was exposed in this stratum; the trench was first visible at 2 cm to 3 cm beneath the occupation surface which marked the upper limit of stratum 2. Unglazed sherds, lithic debitage, bone, mussel and snail shell were recovered from this stratum.

Stratum 3 (Fig. 5, stratum 5) consisted of a compact, light red brown to red tan sandy loam that became lighter in color with increased depth. Calcareous mottling and concretions also occurred more frequently as depth increased. This stratum was approximately 54 cm thick and included an activity or occupation surface defined by lithic debitage, a lithic core, mussel shell, and concentrations of snail shell which were positioned horizontally across the unit (Fig. 11). This activity surface occurred at 99.10 m, 20 cm beneath the surface of stratum 3. Lithic debitage and shell were also recovered from approximately 99.00 m to 99.22 m, 10 cm to 12 cm below and above the activity surface.

Stratum 4 (Fig. 5, stratum 6) consisted of a very compact, light red tan sandy loam with numerous calcareous concretions. This stratum was declared sterile since no cultural material, shell or stone were found in it. None of this season's excavations in the other units reached sterile soil.

Observations

The rubble in stratum 1 is postabandonment wall fall. The presence of cultural material and a relatively high amount of bone in substratum 1b, in comparison to the overlying substratum 1a, suggest that this layer may correlate with the dung deposits in the compound plaza that form strata 3 and 4 in Units 61 and 63, which also contained a high amount of bone. The sandy surface of stratum 2, which correlates with the interior compound occupation surface in the other units, had no observed features and no cultural material in direct association with it. In stratum 3, the presence of precompound occupation lithics and shell is consistent with the same materials found beneath the occupation surface in the other units. The activity surface in stratum 3, however, was not observed in other units; this was probably

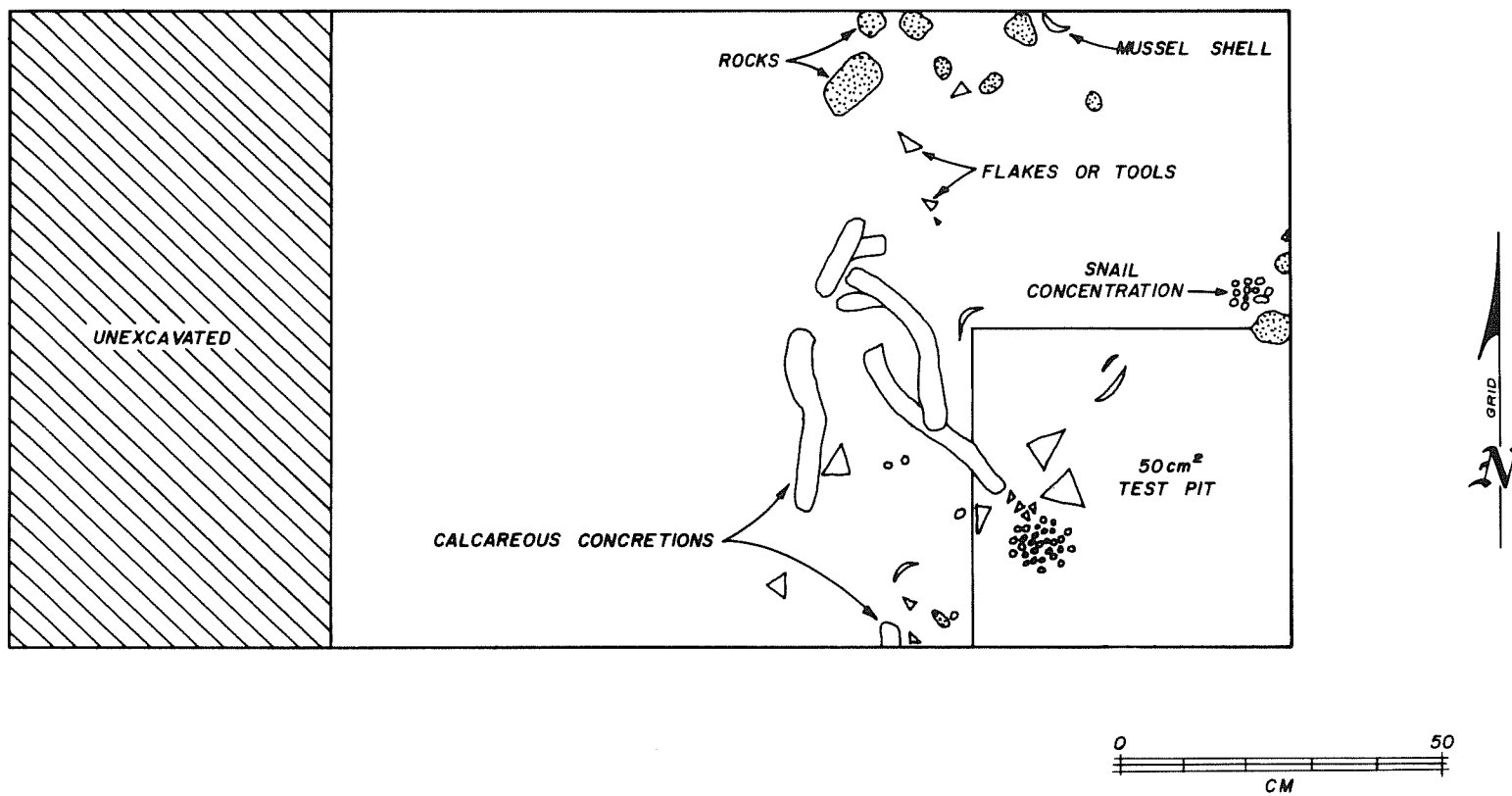


Figure 11. Plan of the Early Occupation Surface in Unit 62, Strata 3.

because these units were not excavated to the depth of the activity surface in Unit 62.

The lack of features and cultural material associated with the surface of stratum 2 is consistent with what was found with this surface in Units 12 and 15, which were also outside the compound wall and away from a gateway (Ivey and Fox 1981:27-28, 30).

CULTURAL REMAINS

The cultural materials recovered from the excavation units this season (see Table 1) are similar to those from the previous investigations, and support the estimated dates of ca. 1760 to ca. 1820 for the occupation of the compound (Ivey and Fox 1981:40-42; Ivey 1983:16). Materials found in the strata beneath the compound occupation surface, of course, predate this period. The lack of diagnostic artifacts from the precompound occupation strata prevent the assignment of any dates to these materials.

The predominant amount of excavated material is animal bone, with a much lesser amount of mussel and snail shell recovered. Ceramics and lithic debitage were the next highest artifact recovery in frequency. The remainder of the material includes glass sherds and a glass bead, and a few pieces of metal.

Ceramics

The ceramics were assigned to five general categories: unglazed wares, lead-glazed wares, and tin-enameled wares, porcelain, earthenwares, and stonewares. This classification system is consistent with that used in previous reports concerning Rancho de las Cabras. The later, 19th-century ceramics are composed of the earthenwares and stonewares, while the earlier, 18th-century ceramics include the unglazed, lead-glazed, and tin-enameled wares, and the porcelain.

There are two main divisions of unglazed wares: the ceramics which were hand built, and those which were wheel thrown. One hand built type, known as **Goliad**, was locally made and closely resembles the prehistoric ceramics known as **Leon Plain** ware, from Neo-American sites in central and south Texas (Fox, Bass, and Hester 1976:67; Hester 1968:11; Hester and Hill 1971; Suhm and Jelks 1962:95). **Goliad** ware may actually be a later development of **Leon Plain**. The paste of **Goliad** sherds usually has numerous white specks which are a crushed bone temper. Vessels of this type, usually shallow bowls with rounded bases and rounded jars and ollas, were fired over an open fire which resulted in a characteristic dark core and variegated surface colors ranging from shades of tan to dark red to dark brown to gray or black. Asphalt was occasionally used for decoration or to mend cracks on vessels of this type. **Goliad** is the major type of pottery found at Rancho de las Cabras and is also plentiful at other south Texas Spanish sites of the same period. The other hand built, unglazed ceramic types found at the site include a redware with a burnished design on a matte background which may be from the Valley of Mexico; and another variety from Tonalá, Jalisco, which is highly burnished

and has a tan paste with a red, black, or polychrome slipped decoration (Fox, Bass, and Hester 1976:67; Ivey 1983:16; Ivey and Fox 1981:31, 1982:2-3; Jones and Fox 1983:38; Mounger 1959).

During the 1984 season the majority (41.0%) of the **Goliad** sherds recovered were from the north midden shovel tests; the second greatest amount (29.5%) of **Goliad** sherds came from the east midden surface collection areas. Within the excavation units, the majority (14.8%) of **Goliad** sherds were in the wall fall and roof fall deposits of Units 59 and 60, strata 1-3; this corresponds with relatively high amounts of bone, shell, and lithics from these same deposits, which are discussed later in this report. An explanation for the high frequencies of ceramic, faunal, and lithic material from these strata is that Rooms 1-4 may have had flat roofs constructed of beams covered with earth, as suggested by Ivey and Fox (1981:17-18) and by Ivey (1983:36), and the earth covering the roof beams may have been obtained from one of the midden areas outside the compound, which would be rich in discarded cultural materials; limited amounts of these materials may have also been used in the compound wall mortar. Though no **Goliad** sherds were associated with the Room 3 hard-packed dirt floor, there were some found on the Room 3 plaster floor in Units 59 and 60. **Goliad** sherds were also on the compound occupation surface in Units 59-61 and 63, and from the sandy loam beneath the surface in Units 59, 60, and 62, stratum 4; the presence of these sherds in the precompound deposits may be due to rodent disturbance and/or to the inclusion of sherds in the prepared mud used for mortar and in the wall footing trenches.

The majority (94.3%) of the burnished redware sherds recovered during the 1984 season were collected from the surface of the east midden. The remainder of these sherds consists of two recovered from the north midden shovel tests, and one in the Room 3 roof fall and wall fall deposits in Unit 59, stratum 3. One burnished redware sherd, which was from the wall fall and roof fall deposits in Unit 60, stratum 2, could be identified as a type from Tonalá, Jalisco. The cause for the concentration of burnished redware sherds in the east midden is not known.

The unglazed, wheel-made ceramics are marked by more advanced construction and were more evenly fired to higher temperatures, probably in a type of primitive kiln. Many of the sherds exhibit throwing ridges that resulted from the pot being worked on a potter's wheel. The paste is usually smooth with very fine to fine sand evident in the paste of some sherds, and may be pink to orange to beige. A red, brush-applied decoration occurs on a few of these sherds, which would indicate, as Greer (1967:20) notes, that these sherds may be from undecorated areas of painted vessels. One type of unglazed, wheel-made pottery known as **Valero**, is fired at a low temperature, is soft, and has a pink paste (Ivey and Fox 1981:31, 1982:2-4).

Only 19 **Valero** sherds were recovered during the 1984 season. Most (36.8%) of these sherds were from the Room 3 wall fall and roof fall deposits in Units 59 and 60, strata 1-3. The lower wall fall deposits in Unit 62, stratum 1b, contained two **Valero** sherds. One of these sherds was associated with the Room 3 dirt floor in Unit 59, and another was with the Room 3 plaster floor in Unit 60. Five **Valero** sherds were from the north and east middens.

Lead-glazed ceramics have a thin, transparent glaze which may vary in color from deep caramel to pale yellow into shades of greens. It occurs primarily on the interior of vessels such as bowls and ollas which were probably used for utilitarian tasks such as cooking and serving food. These ceramics may have come from the Mexico City vicinity. Lead-glazed wares can be divided into two main groups based upon paste and technology. One group has a sandy paste and a bright yellow or dark green glaze that is more opaque and has more intense colors than the other group. Vessels of this first group are relatively thick-walled, wheel-made bowls and ollas, and the bowls occasionally have dark brown or green bands on the vessel rim or in the center of the base. This is the second most common ceramic type found at middle 18th-century Spanish sites. The other group of lead-glazed pottery is known as **Galera** ware. **Galera** ceramics have a fine paste with little, if any, sand, and a more pale yellow or green, almost transparent glaze. Vessels may be decorated with dark brown and cream colored bands, dots, and floral designs, with occasional touches of green. The main vessel forms for **Galera** are chocolate pots and bean pots which are mold-made in two parts joined at the shoulder in a comparatively thick or carelessly made seam. **Galera** was popular during the later half of the 18th century from Texas to California. Other varieties of lead-glazed wares are present at 18th-century sites, but in small amounts. One such variety occurs in the form of thin, redware bowls with a dark, mahogany brown glaze, which may be from Guadalajara; Schuetz (1969:51) has designated this variety as **Guadalajara Red Ware**. There are also black luster vessels which were probably manufactured in Michoacan, and also occasionally heavy, wheel-thrown olive jars which often have a white slipped exterior and a pale green to dark green interior glaze (Goggin 1964:253; Ivey and Fox 1981:34; Jones and Fox 1983:38, 39; Fox 1974:56, 59; Schuetz 1969:51-52).

During the 1984 season, many of the sandy paste lead-glazed sherds (33.3%) were in the wall fall and roof fall deposits of Units 59 and 60. High frequencies of these sherds also were recovered from the north midden shovel tests (32.1%) and the surface of the east midden (21.0%). A few sherds were associated with the Room 3 plaster floor in Unit 60, and one was also from the sandy loam beneath the compound occupation surface in Unit 60, stratum 4; the sherd from stratum 4 in Unit 60 was probably disturbed by rodent activity. Sherds were also found in the lower dung deposits in Units 61 and 63, stratum 4, and one is also associated with the compound activity surface in Unit 63. One sandy paste lead-glazed sherd was from the lower wall fall deposits in Unit 62, stratum 1b.

Only one **Galera** sherd was recovered this season. This sherd was found in a north midden shovel test. The only **Guadalajara Red Ware** sherd found was in the wall fall and roof fall deposits in Unit 60, stratum 2.

Tin-enamelled wares, commonly called majolica, were manufactured primarily in Puebla and Mexico City. The decorative style of majolica exhibits fairly rapid change through time, particularly from the 17th through the 19th centuries. Although there are several known varieties of majolica, sherds of this type from the site were too small to be sorted into more than four color classifications, which is how they were sorted in previous reports. Plain, white sherds constitute much of the majolica ceramics. As noted in Ivey and Fox (1981:34), some of these undecorated sherds are from deep plates and

cups. A type of undecorated majolica was produced during the 18th century. The second color class of majolica is blue-on-white sherds, which would include two types, **Puebla Blue-on-White** and blue-banded **Huejotzingo**; both were common during the 18th century (Ivey and Fox 1981:34; Lister and Lister 1974:134-136). A third color class includes blue-on-white sherds with a small amount of dark brown or black accent, which are of the type known as **San Elizario**, characterized by "a blue band bordered with brown lines and pendant flowers touched with brown accents" (Jones and Fox 1983:39). **San Elizario** was produced during the later half of the 18th century, and was popular in Texas after 1760 (Gerald 1968:46; Ivey 1983:16; Ivey and Fox 1981:35; Jones and Fox 1983:39). The fourth and smallest color class of majolica is polychrome sherds, which include sherds with colors other than blue or blue with brown or black accents; an orange-banded pattern is most often represented by the polychrome sherds from the site (Jones and Fox 1983:39). French faience, a tin-enameled ware which originated in France and is similar to majolica, has also been found at the site; it has a yellow tan paste--softer than majolica paste, dull enamel, and a glaze which tends to flake away from the surface of the paste (Ivey 1983:16; Ivey and Fox 1981:35; Jones and Fox 1983:39, 42; Tunnell and Ambler 1967:35).

Of the plain white majolica sherds found during the 1984 field season, most (64.3%) were from the east midden surface collection areas. A few were in the north midden shovel tests. One of these sherds was associated with the precompound activity surface in Unit 62; this sherd was probably from the prepared mud mortar used in the north compound wall trench, or was introduced by rodent activity.

The blue-on-white color class constituted 46.9% of the recovered majolica sherds. Most (56.5%) of these sherds were from the north midden shovel tests. Blue-on-white majolica sherds were also found in the east midden; in the wall fall and roof fall deposits in Units 59 and 60, stratum 3; and one was on the Room 3 plaster floor in Unit 60.

The **San Elizario** majolica sherds were predominantly from the east midden surface collection areas (45.5%), and from the north midden shovel tests (36.4%). Only one of these sherds came from the wall fall and roof fall deposits in Unit 59, stratum 3. Another sherd was from the tan silty loam layer in Unit 63, stratum 2; and one was from the compound activity surface in Unit 61 (Fig. 12,a).

The only polychrome majolica sherd found during the 1984 season was recovered from the wall fall and roof fall deposits in Unit 60, stratum 3 (Fig. 12,b).

One French faience sherd was found this season. It was from a shovel test in the north midden.

There were a few sherds of Chinese porcelain recovered from Rancho de las Cabras. Small amounts of porcelain sherds have also been recovered from other Spanish sites. Porcelain, in the form of bowls, was imported from the Orient to Mexico, and then was transported from Mexico City to the northern frontier (Ivey and Fox 1981:35).

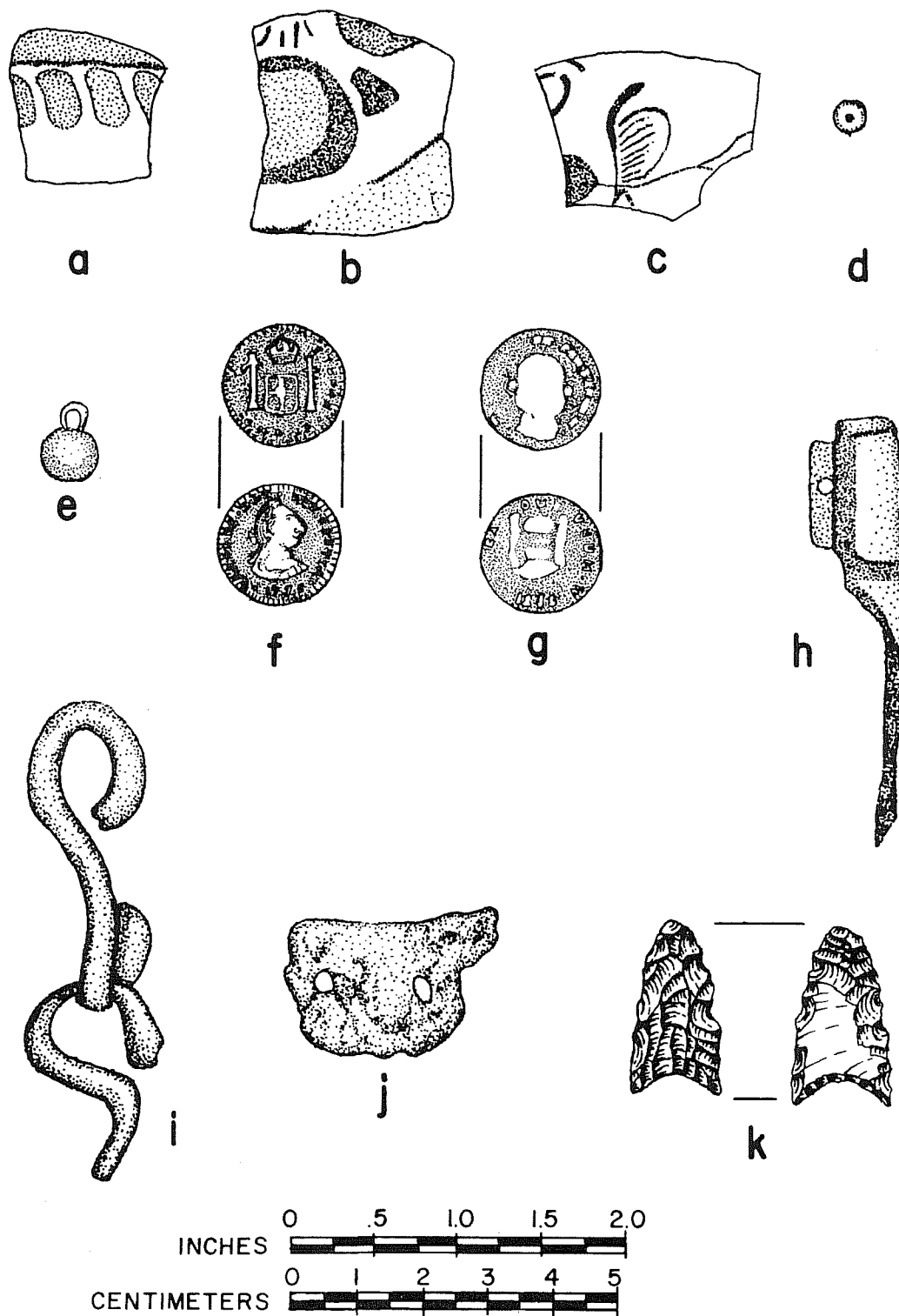


Figure 12. Selected Artifacts from the 1984 Excavations. a, San Elizario majolica plate rim sherd; b, polychrome majolica bowl body sherd; c, red-painted porcelain cup body sherd; d, white glass seed bead; e, spherical metal button; f, 1775 Spanish coin; g, post-1771 Spanish half-real; h, musket rampipe; i, bridle chain; j, spur attachment; k, chert Guerrero point.

Of the two porcelain sherds recovered during the 1984 season, one was in the tan silty loam layer in Unit 63, stratum 2 (Fig. 12,c), and the other was in the lower dung deposit in Unit 61, stratum 4. Both of these deposits postdate the abandonment of the ranch.

Included in the category of stoneware is the ironstone chinaware which was popular during the late 19th century. One stoneware jug handle from the site dates between 1887-1940, and was manufactured in Atascosa, Texas. Some stoneware sherds have a Bristol glaze, and date to after 1900. The few ironstone and stoneware sherds recovered from the site date to the post-abandonment period, and are most often recovered from the surface or first stratum of excavation units (Ivey and Fox 1981:40).

Fragments of two closed form stoneware vessels such as jugs or crocks were recovered from strata 1, 2, and 3, continuing down to the packed dirt floor in Room 3, Units 59 and 60. One vessel, which has a slick exterior, a cobalt decoration, and a brown Albany interior slip, dates to ca. 1865-1885, and may have been transported from the northeastern United States. The other vessel was more crudely made, and has a salt-glazed exterior and an unslipped interior; it probably was not locally made, but was probably made in the United States, and it dates to ca. 1850-1870 (Georgeanna Greer, personal communication 1984).

White earthenware was produced in England, and its occurrence at sites in this region generally first appeared during the late 18th century or early 19th century and persisted throughout the 19th century. This type infrequently occurs at Rancho de las Cabras, and dates to the later historic occupation when the site was no longer a mission ranch.

The three pieces of undecorated white earthenware recovered this season were all from the same vessel, a cup, and were from the wall fall and roof fall deposits of Room 3, in Unit 60, strata 2 and 3.

Glass

The few pieces of glass found at 18th-century sites are usually from wine bottles and small medicine bottles. Small, colorful glass trade beads manufactured in Venice, Italy, are also found in such sites. These beads were given to the Indians for necklaces, and to decorate clothing. Glass jewelry insets have also been recovered from Spanish sites (Ivey and Fox 1981:35-36; Jones and Fox 1983:42).

The one white glass seed bead recovered during the 1984 season was from the wall fall and roof fall deposits in Unit 59, stratum 3 (Fig. 12,d). This bead is 4.5 mm in diameter, and 3.0 mm thick. According to the bead classification system established by R. King Harris (Harper et al. 1967:99) it is a type 5, which is medium (4-6 mm) in size and is described as follows:

Medium, white, opaque, barrel-shaped garter bead of compound construction. The inner layer of glass has a porcelain-like

texture, while the outer layer has a slightly frosted appearance. Tumbled (*ibid.*).

Beads of this type found at the Gilbert site (41 RA 13) were dated to 1740-1770, and those from the Womack site date to 1700-1730 (Harris *et al.* 1965; Harper *et al.* 1967); both of these sites are historic Wichita Indian villages in north-central Texas. The context of this bead indicates that it may have been included in the fill brought in to cover the roof of Room 3.

Colored bottle glass which probably dates to the 19th century was also recovered this season. It was most predominant in the tan silty loam in Unit 63, stratum 3; and also in the upper dung deposit in Unit 63, stratum 3. Glass was also found in the wall fall and roof fall deposits in Units 59 and 60, stratum 3; and on the Room 3 hard-packed dirt floor in Unit 59. The provenience of much of this glass would indicate that a few fragments date to the later occupation or usage of the site, and the remainder date to the postabandonment period.

Metal

Metal objects occur in small amounts at 18th-century sites. Copper or brass fragments from containers such as kettles are the most common metal objects found, though iron is also present. The scarcity of available metal during this time is reflected in the recycling of worn out metal vessels that were cut into pieces and used to patch containers and to make other objects. Metal objects recovered from Rancho de las Cabras during previous seasons include a possible arrow point, a knife blade, a cast brass button, finger rings, a crucifix, a copper furniture tack, nails, a possible bridle chain link, items from Spanish horse fittings, possible awls, branding irons, a small link or pin hinge, a probable shoe buckle, lead musket balls, cartridges and shells, modern bailing wire and rusted modern cans (Ivey 1983:20, 23; Ivey and Fox 1981:36-37, 40; Jones and Fox 1983:42).

One finger ring was recovered during the 1984 field season. It is a metal ring with a molded, clear glass central inset flanked by smaller cobalt-colored glass insets. This ring was collected from the surface of the east midden, and is quite similar to a finger ring found in Area A during the second season at Rancho de las Cabras (Ivey 1983:20, Fig. 5,c). A spherical metal button with a loop attachment (Fig. 12,e), recovered from Unit 60, stratum 3, was another personal metal object that was recovered.

Iron nails recovered from Rancho de las Cabras are hand-forged, machine-cut, and wire nails. Hand-forged nails probably date to the Spanish Colonial occupation of the site. Cut nails were introduced to Texas after the Texas Republic was founded in 1836. Wire nails date to after ca. 1880 (Ivey 1983:23). Few nails were recovered during this seasons' excavations. One hand-forged nail was recovered from the packed dirt, compound occupation surface in Unit 59. Fifteen cut nails were found in the sandy loam immediately above the Room 3 packed dirt floor in Units 59 and 60; one was associated with the packed dirt floor in Unit 59, and another was associated with the sandy loam deposits beneath the compound occupation surface in Unit 59, stratum 4 (this nail was actually found in the prepared mud within

the south wall trench of Room 3). Of the five wire nails recovered, three were from the wall fall and looters' backdirt deposits in Unit 59, strata 1 and 3, and two were from the sandy loam deposit above the Room 3 hard-packed dirt floor in Unit 59. The hand-forged nail dates to the early ranch occupation. The cut nails predominantly occur in the early postabandonment deposits, though one appears to date to the later occupation or usage of the ranch. The association of a cut nail with the Room 3 south wall trench may have resulted from rodent activity which was prevalent in Units 59 and 60. The wire nails all date to the postabandonment period.

During the 1984 season, two Spanish coins were found on the surface of the backdirt that resulted from wall clearing activities around the northwest bastion during the 1981 season. One of the coins (Fig. 12,f) has the date "1775," "Carolus III," and "dei gratia" (by the grace of God) inscribed on one side; a Latin inscription and a coat of arms appear on the other side of the coin. The other coin (Fig. 12,g) is more worn and was difficult to identify. It is a small silver half-real which dates to the reign of Charles III, and probably was minted in Mexico; a crowned coat of arms on one side indicates that it was minted after 1771 (Richard E. Ahlborn, personal communication 1984).

Ammunition recovered during 1984 includes a musket ball that is 14.0 mm in diameter, lead shot that is 6.5 mm in diameter, .22 caliber cartridge cases, and a Winchester Nublack No. 2 shotgun shell. The musket ball, which was found on the occupation surface beneath the plaster floor of Room 3 in Unit 60, would date to the early occupation of the compound. The lead shot was associated with the activity surface outside the compound, in Unit 62. The four .22 caliber cartridge cases were from the wall fall and roof fall deposits in Units 59 and 60, stratum 1, and from the tan, fine loam in Unit 63, stratum 2; these cartridge cases date to the late postabandonment period at the site. During this season numerous .22 caliber cartridge cases were observed on the ground surface across the site. The shotgun shell, which was found above the Room 3 packed dirt floor in Unit 60, also dates to the late postabandonment period at the site; rodent activity is probably responsible for the provenience of the shotgun shell.

A musket rampipe or ramrod guide (Fig. 12,h) that may date to the mid 1700s, was collected from the surface of Area D in the east midden. The rampipe is similar to one from a Spanish Military Model 1752 musket illustrated in Tomas de Morla's *Tratado de Artilleria*, published in 1803 (Brinckerhoff and Chamberlain 1972:31, Plate 25,p), and to those from the Gilbert site (Blaine and Harris 1967:56-58, Fig. 35,k-m), and from the Womack site (Harris et al. 1965:334-335, Fig. 14,e).

A possible bridle fragment, a bridle chain (Fig. 12,i), bridle jingles, and a spur attachment (Fig. 12,j) were recovered this season, which are similar to items found in the north midden during previous seasons. The bridle fragment was recovered from the sandy loam fill above the Room 3 packed dirt floor in Unit 60, stratum 3; the context of the bridle fragment suggests it postdates the abandonment of the ranch. The bridle chains were from the north midden shovel tests. The bridle jingles and the spur attachment were collected from the surface of the east midden.

A piece of sheet copper was also recovered this season. The context of the item, on the plaster floor of Room 3, indicates it dates to the Spanish Colonial occupation of the site.

Metal fragments recovered from the Room 3 south wall trench in Unit 59, stratum 4 may have broken off the large cut nail that was also found there. A fragment of lead was recovered from the lower dung layer in Unit 63, stratum 4. A miscellaneous piece of cast iron was recovered from the roof fall and wall fall deposits in Unit 59, stratum 3. Pieces of miscellaneous thin iron and a piece of wire were found in the north midden shovel tests.

Construction Materials

Mortar and plaster samples were collected from the site during the 1984 season to serve as reference samples for investigations at other sites of this period. Samples were taken of the mortar, or prepared mud, in the wall footing trenches of Room 3, and from the mortar in the lower walls of Room 3. Plaster from the Room 3 floor was also collected.

Lithics

Lithic tools and debitage were recovered from the Spanish Colonial period deposits as well as from earlier deposits during the various seasons of investigation at the site. Lithic tools from the site include what are known as "mission" or **Guerrero** points (Fox 1979:26; Hester 1977; Ivey and Fox 1981:37; Turner and Hester 1985:177). Gunflints, some imported from Europe and others locally made, were collected from the site and would have been used during the 1700s and the early 1800s. A few fragments of ground stone, used to grind materials and for sharpening tools have also been found (Ivey and Fox 1981:37). The lithic material from the 1980 and 1981 field seasons was analyzed and examined for use-wear by Labadie (1983), who assigned the material to groups similar to those used in Fox's (1979) study of lithic material from four Spanish Colonial missions in San Antonio, Texas. The conclusion reached by Labadie (1983) was that the lithics from Rancho de las Cabras were not very different from prehistoric lithic assemblages from south Texas, with most tools produced by flaking, and the lack of a blade technology was also noted. Most of the use-wear appeared to have resulted from cutting and/or sawing tasks, with few lithics showing damage from use in pounding and/or hammering activities.

An analysis of the lithic materials recovered during the 1984 season was attempted by A. J. Taylor using the categories established by Fox (1979) and Labadie (1983), which are intended for debitage and tools produced by hand-held hard-hammer percussion. This type of classification proved to be difficult, however, due to the odd shapes, shattered platforms, and fragmentary condition of the debitage. Kenneth M. Brown (personal communication 1984), Research Associate at the CAR-UTSA, observed that much of the lithic debitage and cores appeared to have been produced using direct, bipolar (anvil) percussion rather than the expected hand-held hard-hammer percussion technique prevalent in south Texas (cf. Crabtree 1972:42; Honea 1965; Shafer 1973:64-66), which would explain the unexpected appearance of the lithic

material. Bipolar flaking is a flintworking technique that usually does not occur in south Texas during prehistoric or historic times. Fox (1979:7, 13, 35, 37) did find evidence of bipolar flaking in the lithic material from Mission San José, but it formed a very small part of the total lithic assemblage. The occurrence of bipolar flaking at Mission San José was thought to be reflective of an adaptation to the site's limited lithic resources, with this technique providing a method of utilizing small pebbles and cobbles which were the only available local lithic resource for producing usable flakes and tools.

Much of the lithic material (34.7%) recovered from the excavation units this season came from the stratum underlying the compound occupation or activity surface (Units 59 and 60, strata 4; Units 61 and 63, strata 5; Unit 62, strata 3). This is the stratum that contained the lower activity surface marked by lithic debitage and shell in Unit 62, stratum 3. An observation of the count of lithics by unit and stratum shows that the amount of lithic material is highest in Unit 62, which was only half as wide as the other units, and it steadily decreases from north to south, from Unit 62 (N=101) to Units 60 (N=84), 59 (N=43), 61 (N=42), and 63 (N=20).

Several of the lithics (8.1%) were recovered from the wall fall rubble and roof fall deposits in Units 59 and 60, strata 1 and 2.

Few of the lithic materials (1.0%) were in Units 61 and 63 deposits overlying the stratum 4 occupation surface. The amount of lithics (3.0%) from the dirt floor and plaster floor in Units 59 and 60 was also low.

One chert **Guerrero** point (Fig. 12,k) was recovered during wall trenching activities by the southwest corner of Room 1.

Observations

The amount of lithic material decreases going from north to south, from Unit 62 to Units 61 and 63. This change in lithic density may be due to the presence of a major lithic concentration in Unit 62; or perhaps the portion of the lithic concentration which formed the Unit 62 activity surface may extend into the other units, but was not reached by the 1984 excavations. Since the activity surface in Unit 62 occurred at 99.10 m, and the depth of the excavations in the other units, excluding the unit test pits, extended only to 99.45 m in Units 59 and 60, and to 99.30-99.32 m in Units 61 and 63, it is likely that the major portion of the lithic concentration in these units was not reached. The small test pits in Units 59, 60, and 61, which were dug more deeply than the overall units, did yield a relatively high amount of lithic material in comparison to that found in the higher levels of the units, which may indicate that the Unit 62 activity surface does extend into these units.

It is possible that the lithics found in the wall fall and roof fall deposits in strata 1 and 2 of Units 59 and 60 were brought to this location in midden fill that was used for wall mortar and for earth to cover the roofs.

Bone, Mussel Shell, Snail Shell, and Marine Shell

Analysis of the bone recovered from the Rancho de las Cabras during the 1984 field season was accomplished by Dr. D. Gentry Steele and Gary B. DeMarcaay of the Department of Anthropology at Texas A&M University; their discussion of the bone is presented in Appendix C of this report. The following discussion, which was undertaken by the authors, of the bone, mussel shell, snail shell, and marine shell recovered during the 1984 field season is based upon the weights (in grams) of bone, mussel shell, snail shell, and marine shell (Table 2) recovered from various contexts at the site.

During the excavation of strata that were not screened, bone which was observed was collected. Mussel shell was also collected when recognized, but because of its smaller size, mussel shell was less likely to be recovered than bone. The absence of snail shell from the east midden collection areas, some of the north midden shovel tests, and some of the upper strata of the excavation units is more due to collection practices than to the amount of snail shell present. Snail shell was not consistently collected from the screened excavation areas, and only the whole snails and larger pieces of snail shells were saved; this was partially due to the fact that recovering fragments of snail shell during dry screening is difficult and time consuming. Undoubtedly, if snail shell is collected in the future, it would be best if the collection procedure was more consistent.

Bone occurred most frequently in the blocky dung strata in the plaza area, stratum 4 of Units 61 and 63. The next highest amount of bone from Units 61 and 63 came from the compact, fine dung layer, stratum 3. Much more bone was recovered from this stratum of Unit 61 than was found in any other stratum. Within Room 3, the predominant amount of bone came from the roof fall and sandy fill layer above the packed dirt floor, stratum 3 in Units 59 and 60; a small amount of the bone from this stratum had been burned. In the area outside the north compound wall, the lower part of the wall fall rubble layer, stratum 1b of Unit 62, was the only stratum with much bone in it. The high amounts of bone found in the shovel tests in the north midden are consistent with the results reported from this area from previous seasons (Ivey and Fox 1981; Ivey 1983). Bone was also collected from the east midden surface collection areas. Two pieces of worked bone, which resembled awls or punches, were found; one was from the occupation surface within Unit 59, and the other was from the fine tan loam layer in Unit 61, stratum 2.

Mussel shell was most common in the precompound activity surface layer outside the north compound wall, in stratum 2b of Unit 62. The next most frequent occurrence was in the roof fall and sandy loam layer above the Room 3 packed dirt floor, stratum 3 in Unit 59; it also occurred frequently in the same stratum in the adjoining Unit 60, within Room 3. There were very low amounts of mussel shell from the plaza area, Units 61 and 63, with the highest amounts from stratum 5, the sandy loam layer beneath the occupation surface. Mussel shell was also recovered from some of the east midden collection areas, and also from some of the north midden shovel tests.

The recovered snail shell weights were highest from the activity surface layer outside the north compound wall, Unit 62, stratum 2b; concentrations of shell, shown in Figure 11, were found associated with this activity surface.

TABLE 2. PROVENIENCE OF BONE, MUSSEL SHELL, SNAIL SHELL,
AND MARINE SHELL FROM THE 1984 SEASON

	BONE (g)	MUSSEL SHELL (g)	SNAIL SHELL (g)	MARINE SHELL (g)
EAST MIDDEN COLLECTION AREAS				
A	25.2	2.5	-	-
B	37.4	14.5	-	-
C	-	4.0	-	-
D	9.5	-	-	-
E	2.9	1.8	-	-
F	10.4	-	-	-
G	2.1	2.6	-	-
NORTH MIDDEN SHOVEL TESTS				
Shovel Test 4	29.5	-	-	-
Shovel Test 5	89.7	11.9	-	-
Shovel Test 6	91.6	1.3	-	-
Shovel Test 7	215.1	30.7	-	-
Shovel Test 8	302.7	3.1	2.0	-
Shovel Test 9	154.5	-	-	-
Shovel Test 10	305.5	-	3.2	-
Shovel Test 11	146.6	20.8	0.8	-
Shovel Test 12	166.3	0.7	5.2	2.8
Shovel Test 13	165.1	-	0.8	-
Shovel Test 14	65.5	3.6	3.2	-
Shovel Test 15	101.1	15.3	7.1	-
Shovel Test 16	110.2	0.3	26.4	0.4
Shovel Test 17	172.9	3.9	7.9	1.6
EXCAVATION UNIT-STRATA				
Unit 59-1	16.6	6.2	-	-
Unit 59-2	63.4	27.5	-	-
Unit 59-3	648.5	123.7	4.0	-
Dirt Floor	197.5	16.5	3.0	-
Plaster Floor	426.1	-	-	-
Occupation Surface	30.5	2.7	6.4	-
Unit 59-4	13.0	10.2	129.5	-
Unit 60-1	74.3	12.6	-	-
Unit 60-2	92.3	15.3	130.3	-
Unit 60-3	1127.2	102.8	160.5	-
Dirt Floor	-	-	-	-
Plaster Floor	330.1	9.4	10.9	-
Occupation Surface	12.4	6.3	-	-
Unit 60-4	15.4	-	212.3	-
Unit 61-1	-	9.0	-	-
Unit 61-2	578.3	1.0	5.7	-
Unit 61-3	233.5	-	19.7	-
Unit 61-4	1745.0	7.7	6.5	-
Occupation Surface	16.0	-	-	-
Unit 61-5	17.4	21.5	36.6	-
Unit 62-1a	153.2	-	-	-
Unit 62-1b	505.3	3.7	146.1	-
Occupation Surface	24.4	0.6	53.9	-
Unit 62-2a	6.1	11.3	74.2	-
Unit 62-2b	0.6	131.7	269.0	-
Unit 62-2c	-	-	-	-
Unit 63-1	-	27.6	-	-
Unit 63-2	316.0	5.0	32.4	-
Unit 63-3	158.5	0.8	28.0	-
Unit 63-4	756.5	-	1.0	-
Occupation Surface	3.7	0.5	5.5	-
Unit 63-5	-	16.5	40.0	-

The sandy loam layer beneath the occupation surface in Unit 60, stratum 4, has the next most frequent occurrence of snail shell, and the same stratum in the adjoining Unit 59 also has a high amount of snail shell. Numerous snail were also recovered from the wall fall rubble and the roof fall and sandy loam layers within Room 3, strata 2 and 3 for Unit 60. Very little snail was collected from the plaza area, Units 61 and 63. Snail shell is present in the north midden shovel tests in varying amounts. Snail was not collected from the east midden area.

A few small pieces of what appeared to be marine shell were also recovered during excavations. This shell was recovered from Shovel Tests 12, 16, and 17.

Observations

The more frequent occurrence of bone in the dung deposits in the plaza, Units 61 and 63, may indicate that the animals being contained within the compound were also being butchered there. The deposits of bone outside the north compound wall, above the occupation surface, Unit 62, may be contemporaneous with the plaza dung deposits in Units 61 and 63. The very small amounts of mussel shell recovered from these same deposits in Units 61, 62, and 63, would indicate that mussel may have been discontinued as a food source at that time. The low amounts of snail recovered from Units 61 and 63 dung deposits, in comparison to the very high amounts of snail from the layer above the occupation surface in Unit 62, may be due to variable collection procedures in these units; an alternative explanation is that snails either could not gain access to, or did not survive as well within the compound as they did outside the compound walls.

The relatively high amounts of bone, mussel shell, and snail shell from the wall fall and roof fall deposits in Room 3, Units 59 and 60, strata 1 and 2, were surprising. The occurrence of this material corresponds with high frequencies of lithics from this same layer as well. An explanation for the high amounts of faunal and lithic material from this layer is that, if Room 3 had a flat roof covered with earth, as suggested by Ivey and Fox (1981:17-18), and by Ivey (1983:36), then the soil for the roof may have been obtained from a midden area that contained discarded mussel shell and lithic debitage.

The sandy loam layer that underlies the occupation surface in all the excavated units, Units 59-63, yielded very little bone, which may be due to poor preservation. Mussel shell and snail shell, however, were common in this stratum. The concentrations of snail shell associated with the precompound activity surface, Unit 62, in addition to the mussel shell may indicate that both mussels and snails were eaten by the inhabitants of the site.

The occurrence of high amounts of bone in the north and east middens (Table 2) indicates that animals were being butchered, and perhaps consumed, at the site. Mussel shell found in both midden areas suggests that mussel was also being eaten. The significance of the snail shell found in the north and east middens may be due to either the consumption of snails at the site, or to the attraction of snails to decaying materials such as would be present in middens.

The marine shell from the north midden area may either be the result of the inhabitants at the site eating small amounts of marine shell animals, or perhaps the shell was brought in for use as ornamentation. A few pieces of marine shell were reported from Area A in the northwest compound area, and from Unit 16 in the north midden area by Ivey (1983:20, Table 1).

Previous analyses of faunal materials from Rancho de las Cabras consist of weight counts (in grams) for bone, mussel shell, and marine shell (Ivey 1983:Table 1; Ivey and Fox 1981:Table 1; Jones and Fox 1983:Table 1); identification of bone from the 1980 excavations by genus and species, if possible (Ivey and Fox 1981:Table 2; Jones and Fox 1983:34-35; McClure 1983); and a discussion of the faunal material recovered during the third field season, 1982, by William McClure (Jones and Fox 1983:34-38).

McClure's (1983; Jones and Fox 1983:34-35) analysis of the 1982 season faunal material, reported that the majority of the material was cow bones, with deer, goat, and sheep bones next in frequency, and other species such as chicken, turkey, dog, opossum, pig, peccary, horse, fish, and turtle, occurring much less often. Cows were slaughtered at an earlier age than the deer, goat, and sheep. A few bones had been burned, and a large majority of the cow and the deer, goat, and sheep bones had been broken by impact, probably to extract the marrow. Butchering marks, which appear to have been made by metal knives, axes, and hatchets, occurred on many of the cow bones, and on a few of the deer, goat, and sheep bones. One of the cow ribs appeared to have been altered, perhaps for use as a tool. For the four major species, bones from all parts of the skeleton were found. Indications are that butchering and disposal of these species was done at the site. It is noted that cow cervical vertebrae are "significantly underrepresented" which might indicate that the neck bones were given to dogs who chewed them up; very few bones showed signs of gnawing by rodents or dogs, however.

The dense deposit of articulated bone which underlies the north midden, and was exposed in ST 1 and Unit 16 (Fig. 3, this report; Ivey and Fox 1981:1; Ivey 1983:10; Rancho de las Cabras Field Records 1980), has yet to be excavated. Three similar concentrations of bone found at the Hubbell Trading Post, founded in northeastern Arizona in 1878, were found to be butchering pits that were located beneath butchering racks or *matanzas* (Olsen and Beezley 1975). These butchering pits, which received offal and bone from butchering, were also used as trash pits and appear to have been kept open for a considerable period or until they were filled with refuse. The butchering pits illustrated by Olsen and Beezley (1975:Figs. 1 and 2) show a rack consisting of two large vertical posts that supported a horizontal post from which the carcass was suspended. The pit may have been covered with plank flooring during butchering and when the rack was not in use. During any future excavations of the bone bed and the surrounding area at Rancho de las Cabras, the archaeologists should be aware that features such as butchering racks may be present.

SUMMARY AND CONCLUSIONS

Archaeological investigations at Rancho de las Cabras (41 WN 30) during the 1984 field season included surface collections, and the excavation of four

units, 14 shovel tests, and various wall trenches. The following interpretations are predominantly based upon data obtained during the 1984 investigations and, to a lesser extent, upon the results of the previous four seasons (cf. Ivey and Fox 1981; Ivey 1983; Jones and Fox 1983; Valdez n.d.) at the site.

The first occupation at the site, which is represented by a horizontal layer or surface of lithics, mussel and snail shell, occurred prior to the construction of the ranch compound. The depth and nature of the materials from this occupation suggest it is prehistoric, although no chronologically diagnostic materials were found to permit the assignment of a date to this stratum. Although cultural material relating to the upper part of this deposit was recovered from Units 59-63, it was only in Unit 62 that excavations were deep enough to reach the occupation surface, and were continued down to sterile soil.

After the stone compound walls of the ranch were constructed, postholes were dug into the hard-packed clay surface of the plaza by the north wall of the compound interior. These postholes may have contained support posts for a **ramada**, or for animal pens which were against the wall. The series of postholes found in Units 59, 60, and 62, suggest that at least two different structures which utilized posts were built in this area at different times during the primary occupation of the ranch. Similar postholes, which may have contained support posts for the same types of structures, were found during previous seasons in the northeastern and southwestern areas of the compound interior in Units 7, 34, and 54 (see Fig. 1).

Sometime after the initial construction of the compound, a series of rooms with sandstone walls and plastered floors was built against the north compound wall. It is possible that initially there were two main rooms constructed and then these two rooms were subdivided, making four rooms, or perhaps there were originally four rooms built (Rooms 1-4); the abutment of the Room 4 west wall to the south room wall, as opposed to the bonding of the Room 3 west wall to the south room wall, suggests that Room 4 was a later division of Room 3. Disturbance of the Room 2 west wall juncture with the south room wall unfortunately obscured evidence of wall abutment or bonding so that it cannot be determined whether this wall was added after the construction of the initial room walls.

Rooms 1-4 were occupied for an extended amount of time, judging from the buildup of packed dirt upon the original plastered floor, and the presence of features associated with the built-up dirt floor in Units 59 and 60. There was no sign of the considerable deposits of manure, which were present in the compound plaza, above the living floors within Rooms 3 and 4. It appears as though these rooms were not utilized after their use as living quarters, as evidenced by the wall fall and roof fall deposits which are directly above the room floors.

The only evidence of features in the compound plaza outside Room 3, which would have been associated with the ranch occupation, was a posthole on the compound occupation surface in Units 61 and 63. The similarity of this posthole with those in Units 59 and 60, which predate the construction of Room 3, suggests that it also predates Room 3. The thick buildup of animal

dung against the south wall of Room 3, appears to have been deposited after the abandonment and at least the partial collapse of that room. The dung deposits in Units 61 and 63 accumulated against the Room 3 south wall, and also against rubble resulting from wall collapse that filled the Room 3 south doorway; these dung deposits extended roughly 35 cm above the bottom of the doorway. The origin or cause for the charcoal present in the dung deposits is not known at present. The gold clay deposits are speculated to have resulted from nearby deep excavations, possibly from the digging of a well; this is based upon the observation that gold clay deposits were not encountered during excavations at the site, and speculation that they are from deep subsoil deposits. The tan sandy loam deposit in Units 61 and 63, stratum 1, occurred after the final abandonment of the site.

The sequence of construction in various areas of the site has yet to be determined. What is the chronological relationship between the construction and utilization of the jacal structures in the northwest and northeast compound interior (Area A), Rooms 1-4, the chapel, the possible structure in the southeast compound interior (Unit 8), the kiln, the north compound gateway, the numerous postholes along the interior of the compound walls, and the midden areas? Were two original compound entrances described for Rancho de las Cabras in 1772 (Gumiel 1772, microfilm roll 15, frame 1371-1373; 1772 microfilm roll 10, frame 4224-4226; Ivey 1983:26-27) as facing the river to the east and facing the plains, located in the northeastern and northwestern compound walls and later torn down? The location of middens by the north and east exterior walls of the compound suggest that some type of openings were there to permit easy access to these areas from the interior of the compound. Also, since no compound entrance was located during wall trenching activities along the exterior of the east compound wall or during examination of the other compound walls, and the known entrance in the north wall postdates the initial compound construction, it would appear that evidence of the original compound entrances was obscured or destroyed when the northeastern and northwestern walls were removed. These two older gateways may have been replaced by the northern gateway which was built in the newer compound wall.

The lack of features and the limited amount of materials recovered, which were associated with the former ground surface immediately outside the north compound wall, indicate that only a limited amount of activity occurred there during the occupation of the mission ranch. This exterior area of the compound was investigated in Unit 62. Units 12 and 15, located against the exterior of the west and south compound walls, also contained no cultural features and had a small amount of artifacts. Units 3 and 16, outside the north compound wall, are in the north midden and correspondingly had dense deposits of cultural materials.

The similarity of the cultural materials recovered from the north midden and the east midden suggest that both deposits date to roughly the same period, the mid 1700s. If the two middens were located outside the two original compound entrances, then their deposition would have been concurrent. The series of shovel tests dug in the north midden indicates that these deposits are much less extensive than was anticipated. It is possible that the north midden extends to the southwest and the east midden extends to the northwest, but those parts of the middens were either covered or destroyed by the later additions to the compound. Excavations in the added northeast and northwest

"wings" of the compound were not excavated deep enough to determine if either speculation is true.

RECOMMENDATIONS

Although the five seasons of archaeological and historical investigations at the Rancho de las Cabras have resolved numerous problems and questions concerning the mission ranch, there is still much to be done before the sequence of activities at the site can be clearly understood. The relative occurrence of construction, occupation, and utilization need to be known in order to interpret what happened at the site during various periods, and why it occurred.

The extent and the nature of the possible prehistoric component at the site should be determined. What is the date of this occupation, and what activities were being conducted here?

The relationship between the jacal structures, Rooms 1-4, the chapel, the possible structure exposed in the southwest compound plaza (Unit 8), and the north and east middens should be explored. This data would determine the location of relative activity and occupation areas at the site, and also possibly how the utilization of the site changed through time.

The possible well exposed in the compound plaza (Unit 5), and the possible lime slaking pit exposed outside the north compound wall (Unit 13) should be investigated further.

The bone bed found below the north midden (Unit 16), and the jacal structures exposed in the northwest compound plaza (Unit 11 and Area A), are intriguing. Intensive excavations in these areas could determine the extent of these features.

Lithic tools and debitage from the possible prehistoric and the ranch mission deposits should be analyzed. The use of the direct, bipolar (anvil) technique is rare in south Texas prehistoric and Spanish Colonial sites. Causes for the employment of this technique, such as contact with aboriginal groups to whom it was familiar, could be explored.

All the cultural materials--ceramics, glass, metal, lithics, and bone--recovered from Rancho de las Cabras during the five seasons of excavations should be reanalyzed as a whole. Previous analyses of artifacts have considered the materials recovered from a single season. A more thorough analysis of the materials from all the excavated areas of the site could produce valuable data concerning variability in the types and locations of materials at the site. This would in turn provide information about locations and types of activity areas at the site, and about changes in site usage through time.

There are still large areas of the compound which have yet to be tested. This includes the plaza along the interior of the west-central and south-central compound wall, and most of the compound plaza that is not directly adjacent to the compound or room walls.

Historical and archaeological investigations could be directed toward locating other Spanish Colonial ranches, and determining if there is further data concerning the functions of these sites which might be included in the records of other mission ranches.

Sections of the compound wall are currently in danger of collapsing due to their exposure and deterioration because of erosion and looters' excavations. It is urgent that these walls be stabilized with sand or other similar material before they collapse. Although much of the brush growing on the compound walls and within the compound walls was cleared prior to the 1984 season, there is still some brush remaining on the walls which is weakening them; this remaining brush should be removed.

As stated in the reports of previous seasons, Rancho de las Cabras has great potential in relation to a more complete understanding of the Spanish Colonial period in this region. The presence of cultural materials that predate and postdate this period add to the archaeological and historical value of the site.

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APPENDIX A.

RANCHO DE LAS CABRAS AND THE "CABRAS INDIANS" OF SOUTHERN TEXAS:
CORRECTION OF MINOR HISTORICAL ERRORS

Thomas N. Campbell

In recent years The University of Texas at San Antonio has conducted a series of archaeological investigations at the site of Rancho de las Cabras, which is near the town of Floresville, Texas, and about 30 miles southeast of the city of San Antonio, Texas (Ivey and Fox 1981; Ivey 1983; Jones and Fox 1983). The reports of these investigations contain an impressive amount of information about a ranch that was operated by Mission San Francisco de la Espada of San Antonio in the second half of the 18th century. These reports do not, however, call attention to certain bits of published misinformation that have never been formally corrected:

- (1) that the ranch was located on the San Antonio River near Goliad;
- (2) that it was operated by one of the Goliad missions and protected by Presidio La Bahia;
- (3) that in 1777, it was populated by Indians known to the Spaniards as Cabras;
- (4) and that these Cabras Indians were previously known to the French of the La Salle expedition (1685-1687) by the name Kiabaha.

It is perhaps time for a correction notice. Here an attempt will be made to explain how these misconceptions developed and thereby lay a few restless ghosts from the scholarly past.

The errors identified above seem to have been initiated nearly a century ago by the historian Hubert H. Bancroft (1886:629), who made a faulty inference from data recorded by Juan Agustin Morfi at San Antonio in 1777. Bancroft had obtained a copy of Morfi's manuscript, **Memorias para la Historia de Texas**, in which the names of six ranches in southern Texas were listed and their populations given (see English translation, Morfi 1935a:102). One of these was Rancho de las Cabras, said to have a population of 26. As Morfi placed this list of ranches immediately after his description of the Goliad missions, Bancroft concluded that the ranches must have been located near the Goliad missions, which are near the San Antonio River but are some 85 miles southeast of San Antonio. Bancroft's conclusion was logical, but it is contradicted by Morfi's original census table of 1777, which has since been found and published (Morfi 1935b:277). This table makes it clear that the ranches were located in the San Antonio area. It does not actually specify that the ranches were operated by San Antonio missions, but this is well demonstrated by numerous later documents. Morfi's census table of 1777 contains additional statistical information. Of the total of 26 individuals at Rancho de las Cabras, Morfi identifies 13 as adults (nine males, four females), and 13 as children (seven males, six females). The four adult females suggest that no more than four families were living on the ranch.

When the **Handbook of American Indians North of Mexico** was being compiled early in the present century, Alice C. Fletcher was assigned the task of preparing entries for certain Indian groups recorded by French chroniclers of the La Salle expedition to the Texas coast. One of Fletcher's assigned groups was Kiabaha, recorded by Henri Joutel (1713:182, 289), the principal French chronicler. In casting about for similar Indian group names later recorded by Spaniards as living near the Texas coast, Fletcher came upon Bancroft's reference to Rancho de las Cabras as being near the Goliad missions. Evidently not knowing enough Spanish to recognize Cabras as the Spanish work for "goats," Fletcher supposed that the 26 inhabitants of that ranch were Cabras Indians. To her the names Kiabaha and Cabras seemed to be phonetically similar, and she equated the two. In the **Handbook** there is no separate entry for Cabras. This name appears in the entry for Kiabaha (Hodge 1907, Vol. I:681), but in the synonymy section (*ibid.*, Hodge 1910, Vol. II:1034) one finds the entry "Cabras=Kiabaha." It is hardly necessary to point out that Cabras and Kiabaha are names derived from two unrelated languages and that any phonetic resemblances that may be noted are purely fortuitous. As yet no Spanish documents have been found that identify any Indian group of southern Texas by the Cabras.

This leaves us with a question that has seldom been asked, namely, who were the 26 individuals recorded by Morfi as living at Rancho de las Cabras in 1777? Were they all Spaniards, or all Indians, or a combination of both? It is well known that most of the labor connected with San Antonio mission farms and ranches was done by Indians (Habig 1968), and it seems reasonable to assume that nearly all of the 26 individuals at Rancho de las Cabras were Indians from Mission San Francisco de la Espada. If we can determine what Indian groups were still represented at Mission Espada as late as 1777, we can at least specify some that might have been represented at Rancho de las Cabras.

As the early mission registers (baptismal, marriage, and burial) of Mission Espada have never been found, it is not possible to use these for determining just which Indian groups were represented at this mission in 1777, when Morfi recorded the population of its ranch. In various documents that date from 1731, when Mission Espada was established at San Antonio, until well into the 19th century, the names of 26 Indian groups represented at Espada have thus far been found (Campbell and Campbell 1983:69-76). Undoubtedly still other Indian groups were represented whose names have yet to be noted in documents. Fortunately, one document is especially helpful because it identifies the Indian groups represented at Espada between the years 1753 and 1767. This was written in 1767 by the Espada missionary Acisclos Valverde, and it lists the names of 11 Indian groups represented at Mission Espada during that period. It is clear that Valverde obtained these names from the mission registers. The list includes Assaca, Cacalote, Caguaumama, Carrizo, Cayan, Gegueriguan, Huarique, Saguem, Siguipan, Turique, and Unkrauya. Valverde states that the Caguaumama were particularly numerous at Mission Espada (**hay muchos en esta mision**). Although remnants of other Indian groups may have entered Mission Espada between 1767 and 1777, it appears likely that some of the 26 individuals at Rancho de las Cabras belonged to one or more of the 11 groups named by Valverde. The most interesting thing that can be said about these 11 groups is that, so far as is now known, none of them originally lived in the San Antonio area or spoke the Coahuilteco language. Most can be

identified as Indian groups that were native to a more southerly area, specifically extreme southern Texas and the adjoining part of what is now the Mexican state of Tamaulipas. Their presence at Mission Espada during the period 1753-1767 strongly suggests that they were remnants of Indian groups that had been displaced by Spanish colonies established by Jose de Escandon shortly before 1750 at various places along the Rio Grande downstream from Laredo (Bolton 1915:290-302).

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APPENDIX B.

THE CONSTRUCTION SEQUENCE AT RANCHO DE LAS CABRAS

Ray Smith

The original Rancho de las Cabras structure (Fig. 13) was an irregularly shaped, six-sided compound constructed of sandstone slabs and blocks that were obtained from a nearby quarry. Excavations and wall trenching during previous field seasons (Ivey and Fox 1981; Ivey 1983; Jones and Fox 1983; Valdez n.d.) revealed evidence of earlier compound walls, room additions, and different styles of stonework that indicates that the compound may have undergone at least two major renovations.

During the 1984 season, in order to obtain information about construction patterns and phases at Rancho de las Cabras (i.e., to locate doorways and possible windows, and to confirm abutted or bonded wall intersections of the north compound rooms), trenches were excavated along both faces of the east, south, and west walls of Rooms 1-4, exposing the upper remaining part of the stone walls (Figs. 14 and 15). Excavations revealed the foundations, footing, and footing trenches of the Room 3 south and west walls and also of the original north compound wall (see Figs. 4, 5, 10). Architectural details thus revealed were recorded and mapped.

Although no excavations or trenches were dug this season, enough details were exposed in other parts of the compound during earlier field seasons to allow a study of construction techniques and sequence for most of the site.

During the first major renovation of the compound (Fig. 16) which would have occurred after 1772 (Ivey 1983:35), the northwest wall was removed, and the north and southwest walls were extended to intersect and enlarge the compound. A north wall gateway was built, and a bastion was constructed on the new exterior northwest corner of the compound; another bastion was built on the exterior southeast corner. During this same time a limekiln was incorporated into the original northwest compound wall footings which had been leveled (see Ivey 1983:12-15, Fig. 2). A section of the northeast compound wall was removed, and the southeast wall was extended to intersect with a new north corner wall. A chapel was also built, incorporating part of the original northeast compound wall. There may have been a bastion or second story on the north side of the chapel for defensive purposes. Portions of the footing of the original northeast compound wall that had been leveled were found during the 1981 field season (see Ivey 1983:3-6).

The second major renovation of the compound (Fig. 17) consisted of the construction of rooms with stone walls against the interior of the north compound wall. Investigations conducted during the 1984 field season revealed there were four rooms instead of three as was originally believed. Rooms 1-4 were built sometime after the remodeling of the compound wall and the construction of the chapel. This sequence is indicated by the abutment of the room walls onto the original north compound wall and what was the original northeast compound wall and later became the western wall of the chapel (see the section on the Unit 54 excavations in Valdez n.d.), and also by differences in building techniques such as wall footings and stonework

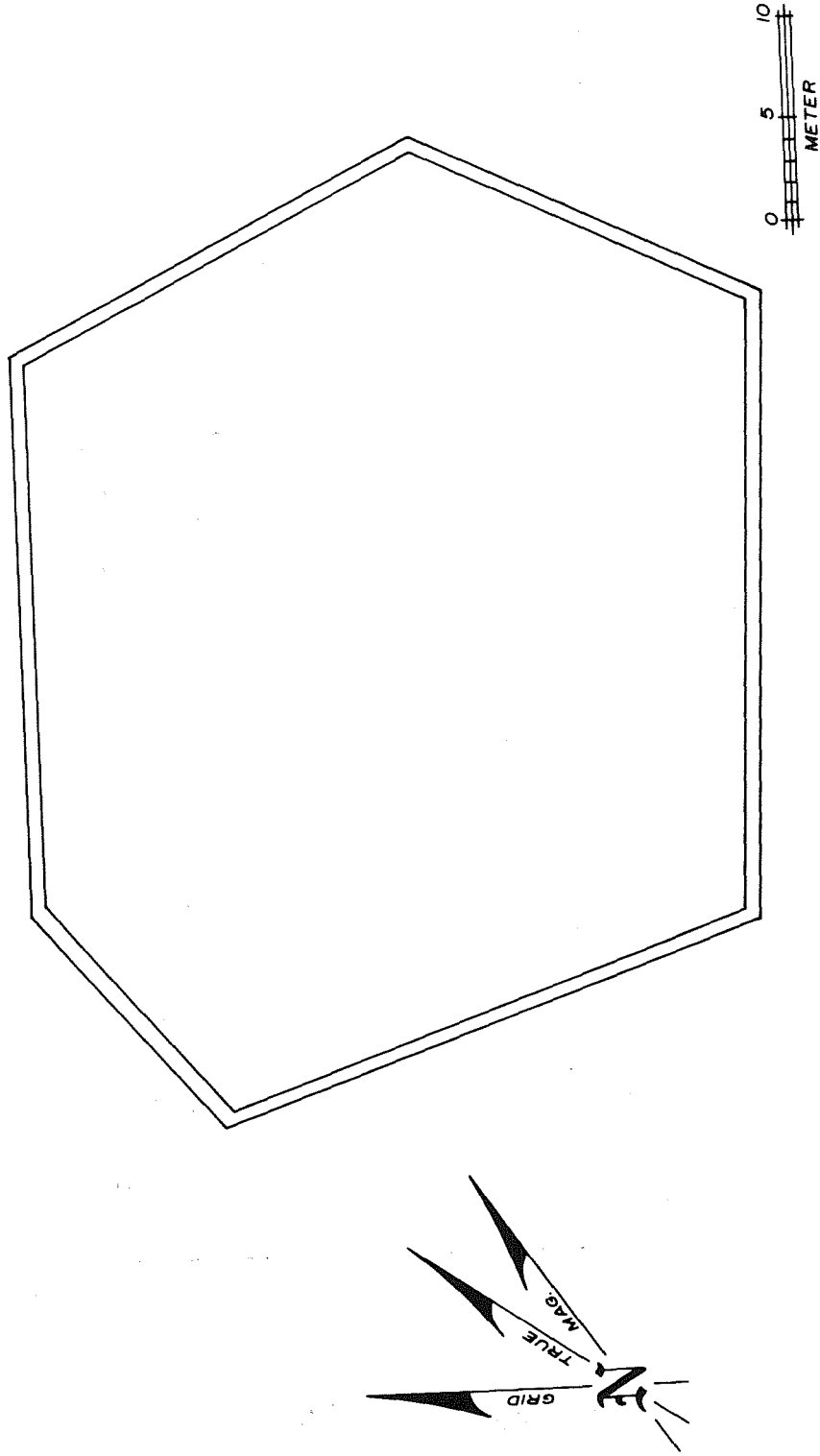


Figure 13. Map of Construction Phase A.

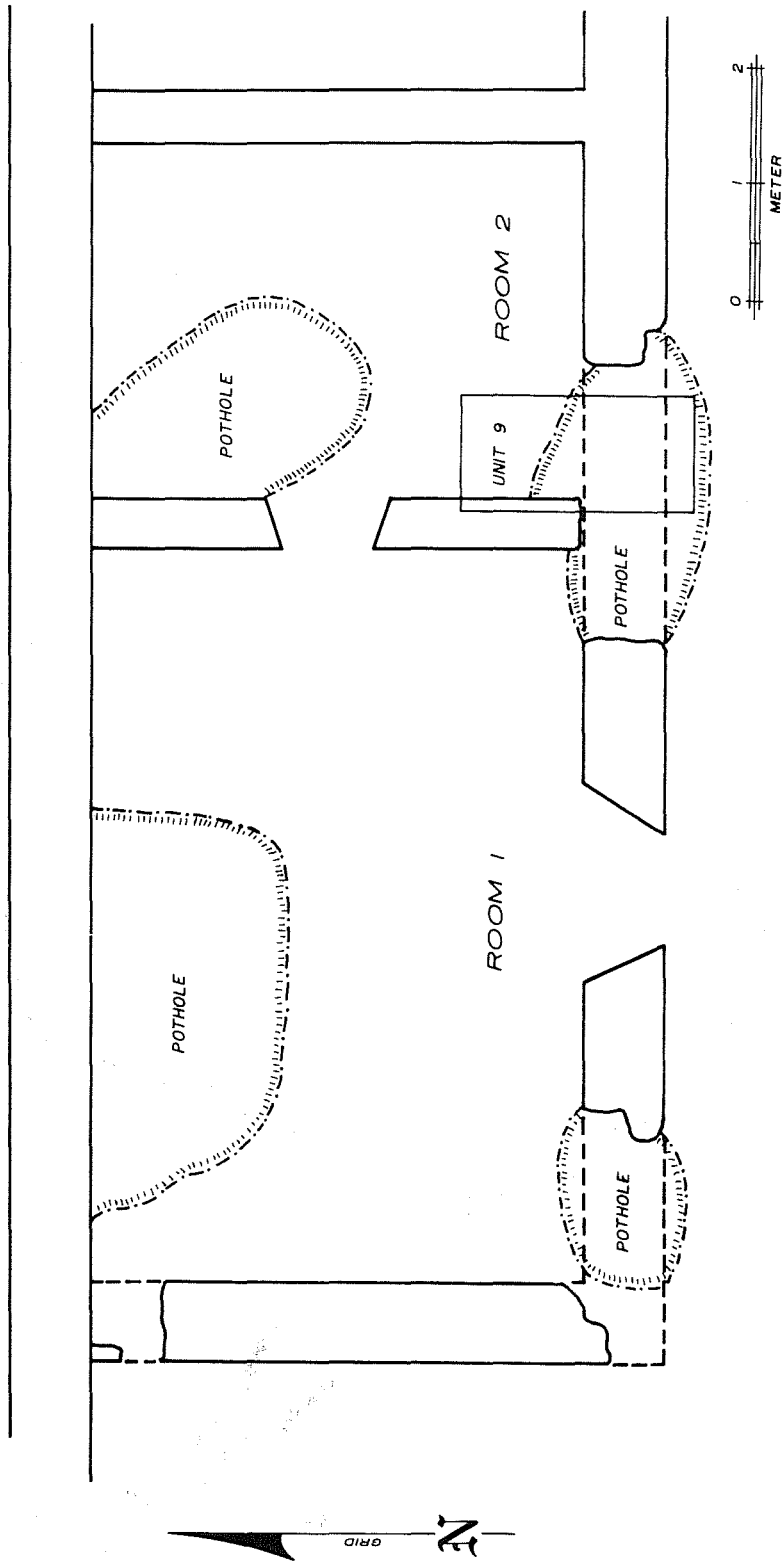


Figure 14. Detail of Rooms 1 and 2, Showing Architecture and Disturbances.

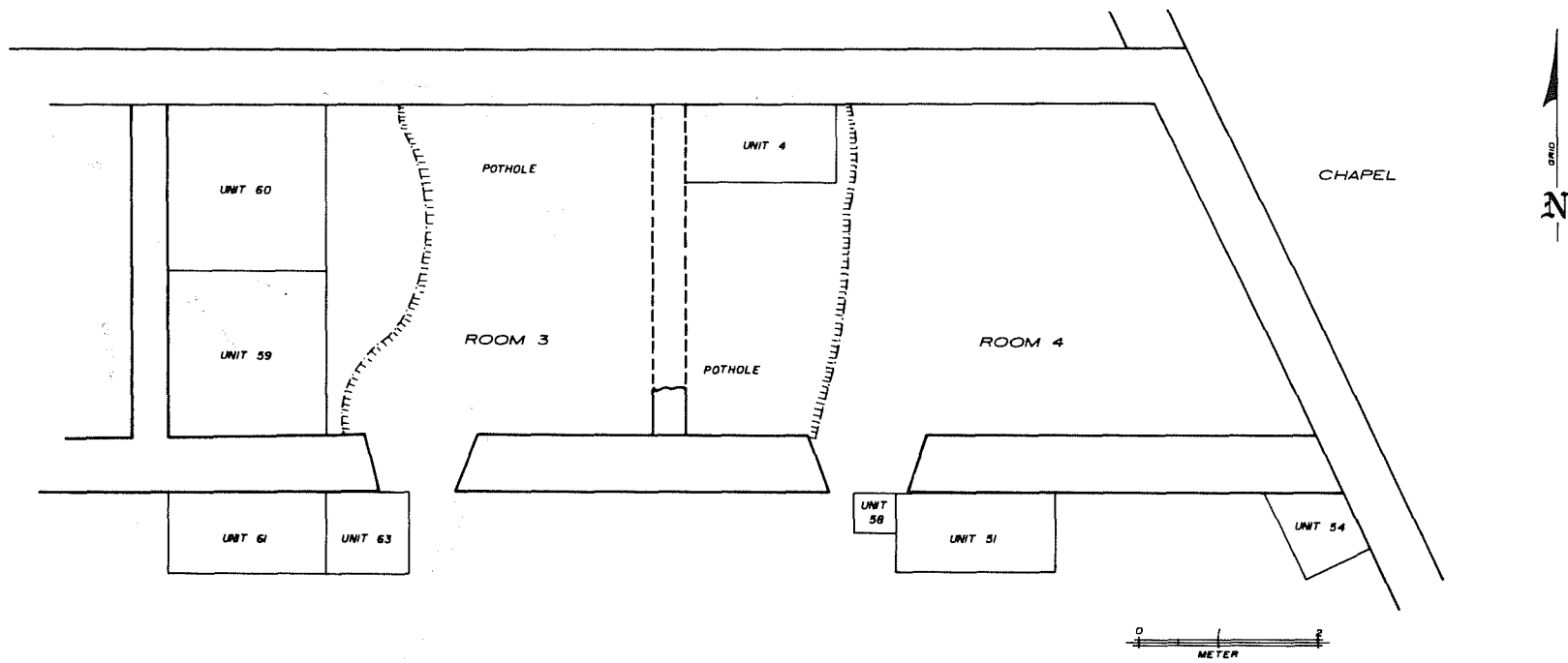


Figure 15. Detail of Rooms 3 and 4, Plan of North Wall.

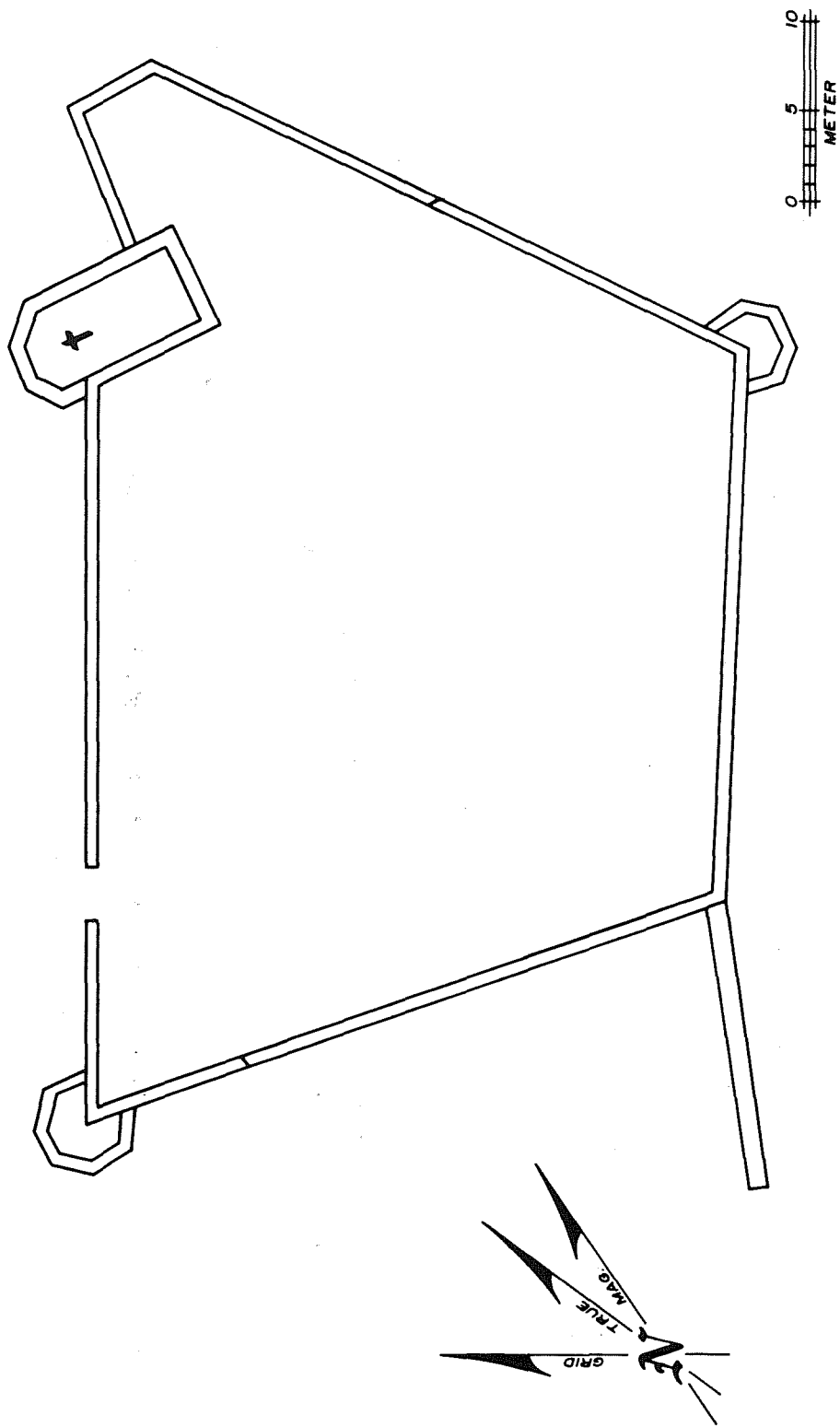


Figure 16. Map of Construction Phase B.

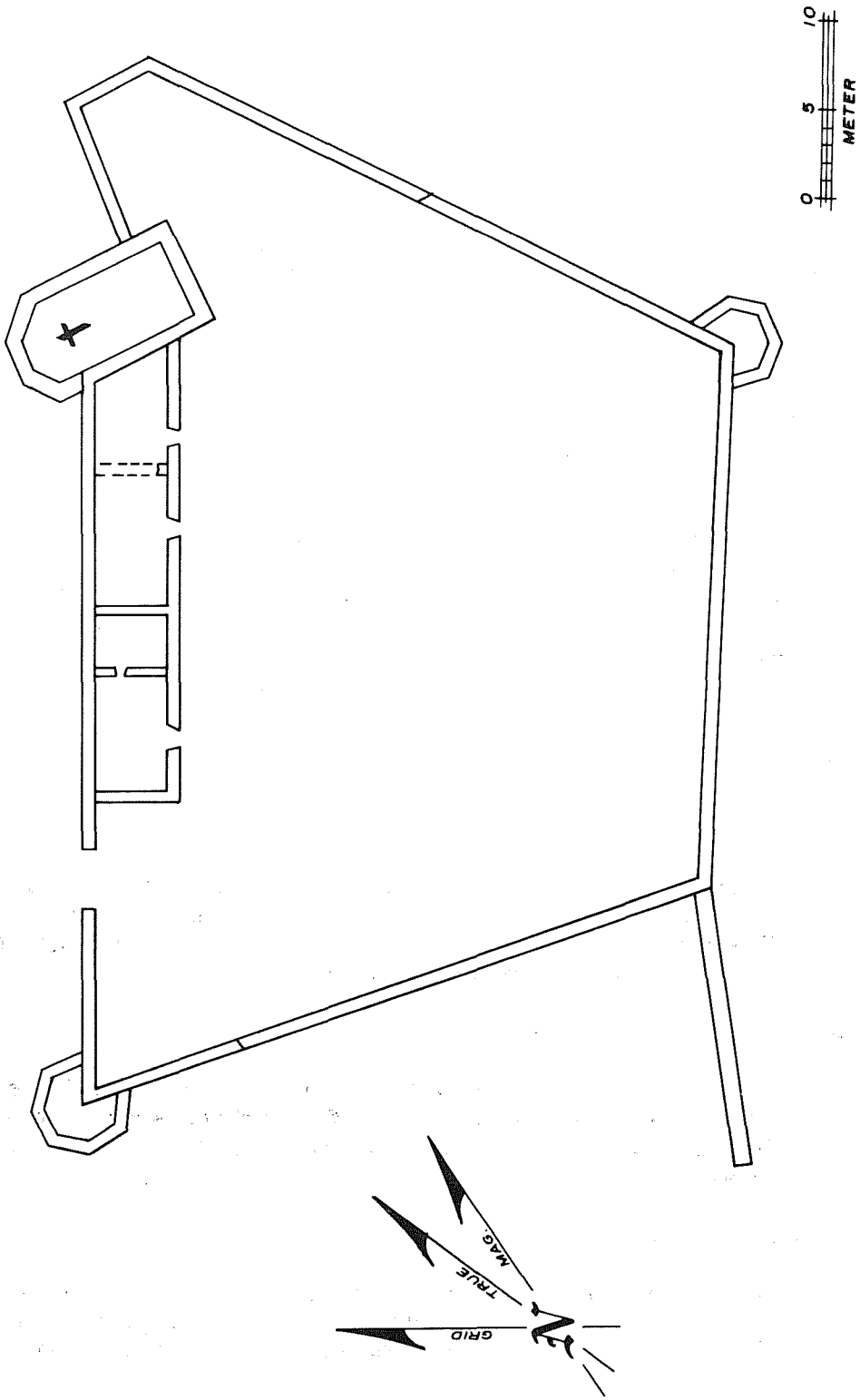


Figure 17. Map of Construction Phase C.

styles. The general size, shape, and color of the stone in Rooms 1-4, is also not evident elsewhere in the compound, which would indicate that they were quarried from a different location and laid by different masons than were the walls and structures mentioned as being included in the first major renovation of the compound.

The construction of Rooms 1-4 began with the building of two large rooms with a bonded, central partition wall separating them. The east, central, and west walls of these two rooms abutted onto the original north compound wall. Abutted partition walls were then built to subdivide the two large rooms into two rooms each, which created Rooms 1-4. Rooms 1, 3, and 4 have exterior splayed doorways. Room 2 has a splayed doorway on the west interior wall, connecting it with Room 1. The total interior measurements of Rooms 1-4 are 24.60 m x 4.20 m. The exterior walls of these rooms are comparable in width to the original compound walls, ca. 70 cm. The interior partition walls are smaller in width, ca. 43 cm. These room walls were built much more carefully and professionally than were the remainder of the compound walls. The sandstone used in Rooms 1-4 appears to have been faced or cut to provide a flat side for the interior and exterior faces of the wall. During construction these stones were carefully leveled, and spaces were filled with smaller sandstone chinking stones. The sandstone was layered in an interlocking pattern and set into a brown sandy clay mortar. No interior or exterior wall plaster was detected on the existing walls. Rooms 3 and 4 did have plaster floors (see Units 59 and 60, this report, and Ivey and Fox 1981:16-18, Fig. 4).

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APPENDIX C.

ANALYSIS OF FAUNAL REMAINS RECOVERED
DURING THE 1984 EXCAVATIONS AT RANCHO DE LAS CABRAS

D. Gentry Steele and Gary B. DeMarcay

Faunal remains from Rancho de las Cabras were collected during the 1982 and 1984 field seasons, and the collections from the two seasons have been analyzed by McClure (1983) and the present authors, respectively. The sample recovered from 1982 consisted of approximately 19 kg of bone of which 9 kg (47.4%) were unidentifiable fragments. The 1984 season's faunal sample consisted of 4.128 kg of bone of which 1.71 kg (41.4%) were unidentifiable. Numerically, the 1984 sample consisted of 2340 bones and bone fragments of which 1819 (77.7%) were unidentifiable fragments.

Before interpreting the faunal sample a few comments should be made as to how the assemblage was accumulated over time, and what taphonomic agents acted upon the assemblage to reduce the bone to its recovered condition. The site of the ranch was apparently occupied prehistorically by indigenous Indians of the region; then the ranch was established and occupied by people of both Spanish and North American Indian descent. Finally, after the ranch was abandoned, the area continued to be used to the present time by people of Spanish or English descent (A. J. Taylor, personal communication). Given this varied human utilization of the area it is obvious that one of the major accumulators of the bone assemblage were the human occupants. Additionally, however, other probable contributors to the assemblage can be identified. McClure (1983) suggested that the large number of bones of the hispid cotton rat in stratum 37 were probably the remnants of owl pellets. He also identified the remains of domestic dog from the site, and it is certainly possible that this predator could have carried refuse back to the site from its hunting forays. In addition to these human and nonhuman predators which concentrated bone in the vicinity of the site, other animals could have resided in the site area and subsequently died there, thus contributing their remains to the assemblage. For instance, the almost complete remains of a pocket gopher from a rodent burrow in Unit 59 probably represent an animal that died in its burrow, rather than being the prey of one of the predators occupying the site. When all possible sources responsible for the bone present in the assemblage are considered, it becomes apparent that reconstructing the dietary habits of the human occupants must be done judiciously.

In addition to considering how the assemblage came to be, it is also necessary to consider how the various bone pieces came to be reduced from their original condition in life, and how they came to be scattered throughout the site. This is particularly necessary if inferences about human food processing and consumption are to be made on the basis of the condition of the bone in the assemblage. First to consider is the incomplete nature of the sample and the degree of comminution of the material. No individual represented in the bone assemblage was represented by a complete skeleton. The closest approximation to a complete skeleton is the approximately 75% complete skeleton of a pocket gopher which appears to have died in its burrow. The rest of the individuals present in the sample are represented by single bones or bone fragments.

The second point to emphasize is that the majority of the sample consists of unidentifiable fragments of bone, or the incomplete but recognizable elements. Less than 2% of the sample consists of complete bones. This incomplete and comminuted condition of the material which is typical of bone assemblages from human habitation sites, is brought about by a series of taphonomic factors. Humans, as they process animals for food or for other uses, are one of the major taphonomic factors rendering bone. The process of butchering usually results in the disarticulation of the skeleton and breakage of some of the elements. Evidence of this process, in the form of cut marks on the bone, could be detected on some of the bones recovered during the 1982 and 1984 seasons.

Further reduction of the bone could have occurred if marrow processing or bone grease processing occurred at the site. McClure (1983) felt that all of the cow bones from the earlier excavation had been broken by impact which he inferred as evidence for marrow processing. Many of the fragments of the long bones of the large mammals recovered during the 1984 season were also broken while green, but there was no direct evidence of the breaks having been caused by human involvement. While we agree with McClure that humans could well have been rendering marrow or even bone grease at the site, the evidence acquired during the 1984 excavation does not allow us to confirm his observation. We did, however, find evidence of carnivore gnaw marks on some of the bones so they too were probably a taphonomic agent reducing the bone at the site. Other documented causes for bone reduction at the site are burning noted by McClure (1983) and the present authors, and dessication and the resulting postdepositional breakage noted by the present authors.

While we could gather little evidence about how the bone became distributed throughout the site by an examination of the bone itself, a note of caution should be raised about the possible movement of bone from one stratum to another by rodent activity. Rodent burrows were noted during the process of excavation (A. J. Taylor, personal communication). This is mentioned here because two pieces of unidentified artiodactyl bone were recovered from strata predating the establishment of the ranch, and it is possible that these bones could represent the intrusion of elements of domestic caprine into the lower levels, rather than elements of deer or pronghorn which would have been in the area prehistorically.

Dietary Patterns

Table 3 lists the faunal remains by occupation period and by unit from the 1984 period of excavation, and Table 4 provides a systematic list of the fauna recovered from the site during the 1982 and 1984 field seasons. From the combined seasons 34 taxa were recovered with 17 of these taxa being recovered in 1984. While all of these could have served as a food resource by occupants of the site, and many have been used as food resources by North American Indians in south Texas (Hester 1975, 1980; Hester and Hill 1975; Steele 1986, n.d.; Steele and Assad 1986; Steele and Mokry, in press), identifying what was indeed human food refuse at this site is more difficult. Even more difficult is inferring the specific food habits of the Indians and the Spanish who occupied the site. Minimally, the artiodactyls, the rabbits,

TABLE 3. NUMBER OF IDENTIFIED SPECIMENS (NISP) RECOVERED FOR EACH TAXA FROM STRATIGRAPHIC LAYER IN EACH EXCAVATION UNIT

	?	UNIT 59			UNIT 62			UNIT 63			ALL UNITS		
		A	B	C	A	B	C	A	B	C	A	B	C
MAMMALIA	1	-	2	-	-	-	-	2	-	-	2	2	-
Carnivora													
Mustelidae													
Mephitis	-	-	-	1	-	-	-	-	-	-	-	-	1
Artiodactyla	1	-	5	1	-	-	1	10	1	-	10	6	2
Cervidae													
Odocoileus	1	-	2	-	-	-	-	9	1	-	9	3	-
Bovidae													
Bos	3	-	-	-	-	9	-	12	-	-	12	9	-
Capridae	45	-	32	-	-	11	-	28	-	-	28	43	-
Capra	-	-	-	-	-	-	-	1	-	-	1	-	-
Ovis	1	-	-	-	-	-	-	1	-	-	1	-	-
Suidae													
Sus	-	-	-	-	-	-	-	1	-	-	1	-	-
Lagomorpha													
Leporidae							1						1
Sylvilagus	-	-	-	-	-	-	1	-	-	-	-	-	1
Rodentia	1	-	3	-	-	4	2	-	-	-	-	7	2
Cricetidae													
Neotoma	-	-	-	-	-	-	1	-	-	-	-	-	1
Sigmodon	3	-	-	-	-	19	-	1	-	-	1	19	-
Geomyidae													
Geomys	-	-	-	26	-	-	-	-	-	-	-	-	26
Scuriidae													
Spermophilus	-	-	7	-	-	1	1	1	-	-	1	8	1
OSTEICHTHYES	1	-	30	-	-	-	-	-	-	-	-	30	-
Cypriniformes													
Ictaluridae													
Ictalurus	68	-	114	1	-	2	-	10	-	-	10	116	1
AVES	-	-	-	-	-	1	-	-	-	-	-	1	-
REPTILIA													
Testudines													
Emydidae													
Chrysemys	-	-	-	-	-	-	-	3	-	-	3	-	-
Trionchidae													
Trionyx	1	-	1	-	-	-	-	2	-	-	2	1	-
Crocodylia													
Alligatoridae													
Alligator	-	-	1	-	-	1	-	-	-	-	-	2	-
Serpentes													
Colubridae													
Lampropeltis	-	-	-	-	-	-	-	3	-	-	3	-	-

Key: ? = unknown occupational period
 A = postabandonment period of occupation
 B = period of occupation of the ranch
 C = period of occupation prior to the establishment of the ranch

Note: The taxa are listed for the occupation levels in Units 59, 62, and 63. All three unit samples are combined for the total number of specimens.

TABLE 4. SYSTEMATIC LIST OF THE IDENTIFIED FAUNA RECOVERED FROM THE 1982 AND 1984 FIELD SEASONS AT RANCHO DE LAS CABRAS

	1982	1984		1982	1984
CLASS MAMMALIA	x	x	CLASS OSTEICTHYES	x	x
Order Marsupialia			Order Cypriniformes		
Didelphidae			Family Ictaluridae		
Didelphis	x	-	Ictalurus	x	x
Order Artiodactyla			Order Perciformes		
Bovidae			Sciaenidae		
Bos	x	x	Aplodinotus	x	-
Cervidae					
Odocoileus	x	x			
Capridae			CLASS AVES	x	x
Capra	x	x	Order Gruiformes		
Ovis	x	x	Meleagridae		
Tayassuidae			Meleagris	x	-
Dicotyles	x	-	Order Galliformes		
Suidae			Gallus	x	-
Sus	x	-	Phasianidae		
Order Perissodactyla			Colinus	x	-
Equidae			Order Falconiformes		
Equus	x	-	Cathartidae		
Order Carnivora			Cathartes	x	-
Canidae					
Canis	x	-	CLASS AMPHIBIA		
cf. Urocyon	x	-	Order Anura		
Mustelidae			Bufonidae		
Mephitis	-	x	Bufo	x	-
Spilogale	x	-			
Order Chiroptera	x	-			
Order Lagomorpha			CLASS REPTILIA		
Leporidae			Order Crocodylia		
Sylvilagus	x	x	Alligatoridae		
Order Rodentia			Alligator	-	x
Herteromyidae			Order Serpentes		
Perognathus	x	-	Colubridae		
Muridae			Elaphe	x	-
Neotoma	x	x	Lampropeltis	x	x
Sigmodon	x	x	Order Testudines		
Peromyscus	x	-	Emydidae		
Geomyidae			Chrysemys	-	x
Geomys	x	x	Pseudemys	x	-
Sciuridae			Trionychidae		
Spermophilus	x	x	Trionyx	x	x
			Chelydridae		
			Chelydra	x	-

the fish, most of the birds, and possibly the alligators and the turtles served as fare for one or both of the cultural groups occupying the site.

For the 1984 season the assemblage was broken down into three occupational periods: pre-ranch, ranch, and postabandonment of the ranch. When the samples from these three occupation periods were compared it became apparent that the pre-ranch period of occupation was characterized by the utilization of small fauna while the ranch and postabandonment of the ranch periods were characterized by the utilization of the large domestic species of cows, sheep, and goats. This confirms the historical record reported by Ivey (1983) and McClure's (1983) conclusion. Additionally, however, the archaeological record documents the taking, and probable use as food, of both terrestrial and aquatic game during the Historic period of occupation. Deer elements were recorded both by McClure and the present authors, as well as a variety of turtles, alligators, fish, and birds. The number of elements of fish particularly suggests that these may have been commonly taken from the nearby San Antonio River or other water sources.

The large size of the cow and caprine sample made it possible to determine if only certain portions of these animals were being used as food fare or if almost the entire animal was being utilized (the assumption is that butchered parts not consumed would have been disposed of away from the immediate vicinity of the ranch). McClure alluded to this question when he noted an unexpected low number of cervical vertebrae of cows in the midden sample and suggested that these may have been fed to the dogs and thus were destroyed. Table 5 documents the elements recovered from cows and caprines in 1984. Both cows and caprines from the periods of occupation of the ranch and after its abandonment are represented by skeletal elements from the head, trunk, and limbs. Only the innominate and femur are strikingly absent. This suggests that most of the carcass of these animals was consumed by humans. Given the large and awkward shape of the innominates and femora it is probable that the flesh was flayed from these bones, and the bones themselves discarded with the offal.

For these large domesticants it is also possible to determine the most common age of slaughter. For both the caprines and the cows the vast majority of specimens for which age could be determined were subadult. This inference was based upon the fact that the large majority of the long bones had not yet fused, a growth process which signals maturity. McClure (1983) also noted this. The preferential selection of the young and more tender animals is possible when there is an abundance of animals available.

One other dietary consideration is whether the human inhabitants of the site processed the bones for marrow or for bone grease. Binford (1981:150-162) documented for Eskimos the processing of marrow both for snacks as well as for a regular food item, and marrow processing has been inferred as one of the major bone reduction activities which occurred in prehistoric human sites in south Texas (Steele 1986). McClure (1983) felt that the majority of the bones recovered during the 1982 field season suggested that marrow processing also occurred at Rancho de las Cabras. This cannot be substantiated on the basis of the faunal collection recovered in 1984. While we indeed have many long bone fragments broken while they were fresh, we have not recovered bones

TABLE 5. DISTRIBUTION BY SKELETAL ELEMENT OF THE SAMPLE COW AND CAPRINE BONES

	Bos		Caprine	
	A	B	A	B
Cranial	-	-	-	-
Mandible	-	-	-	1
Teeth	-	5	-	7
Scapula	-	1	-	-
Cervical v.	1	-	-	5
Thoracic v.	1	1	3	2
Lumbar v.	-	-	-	-
Caudal v.	-	-	-	-
Ribs	5	1	7	1
Humerus	-	-	-	-
Radius	1	1	1	2
Ulna	-	-	-	-
Carpals	1	-	-	-
Metacarpals	-	-	1	-
Innominate	-	-	-	-
Femur	-	-	-	-
Tibia	-	-	-	1
Calcaneus	-	-	-	-
Astragalus	1	-	1	-
Tarsals	-	-	-	-
Metatarsals	-	-	1	2
Phalanges	2	-	7	12

Note: A = postabandonment period of occupation
 B = period of occupation of the ranch

evidencing points of impact which would clearly identify humans as the reducing agent.

The Environment

One of the major types of information the analysis of faunal remains can provide concerns the types of habitats which existed around a site during specific times and what portions of these habitats the human occupants of the site were utilizing. At Rancho de las Cabras the wild fauna represented in the site are the same taxa which occur in the region today, suggesting that in a broad perspective the environment was similar then to what it is today. In terms of habitat utilization the presence of deer, collared peccary, and cottontail rabbit remains document that the human occupants harvested upland species. The presence of the turtle, alligator, and fish remains document the harvesting of riverine resources.

Description of Taxa

Presented below are the descriptions of the taxa recovered during the 1984 field season. The material recovered, provenience, and comments pertinent to that material is provided for each taxa. For the 1984 field season faunal material was examined from Units 59, 62, and 63. The material was divided into three periods of occupation based upon information provided by the field director. Material from the pre-ranch period of occupation consists of bone recovered from Unit 59, stratum 4; Unit 62, strata 2-4; and Unit 63, stratum 5. Material from the period of occupation of the ranch consists of the bone recovered from occupation surfaces from the three units plus the material from the plaster floor in Unit 59. Material from the period of abandonment of the ranch consists of bone recovered from Unit 59, strata 1-3; Unit 62, strata 1a and 1b; and Unit 63, strata 1-4. One field excavation layer (5 and 5a), the hard-packed dirt floor from Unit 59, could not unequivocally be assigned to either the period of occupation or the period after the abandonment of the ranch, so material from this layer was treated separately in the analysis.

Class Mammalia

Order: Indeterminate (mammals)

Referred Material: Material consists of nondiagnostic bone fragments representing small-, medium-, and large-sized mammals, recovered in all layers and all units.

Remarks: Most of the material probably represents bone fragments from cows and caprines since these were the most commonly recovered taxa. An examination of these fragments documents the presence of both step-fractures and spiral fractures which indicates the bone was comminuted over a relatively long period of time, and probably by a variety of taphonomic agents.

Order: Carnivora

Family: Mustelidae

cf. **Mephitis** (skunk)

Referred Material: A lower canine from Unit 59, stratum 4, the period prior to the establishment of the ranch.

Order: Artiodactyla

Family: Indeterminate (cloven-hooved mammals)

Referred Material: Material consists of fragments representing a variety of skeletal elements from all units which could be deer, caprines, or pronghorn.

Family: Cervidae

Odocoileus cf. **O. virginianus** (white-tailed deer)

Referred Material: Material consists of cranial and postcranial remains recovered from strata associated with the occupation of the ranch and from strata deposited after the abandonment of the ranch, Unit 59, strata 1, 2, and the earthen floor, and Unit 63, strata 1b, 2, and 3.

Remarks: The deer remains recovered from the site could be assigned to the genus **Odocoileus** on the basis of the structural features of the bone, but identification as to species is presumed because white-tailed deer occur in this part of the state, and mule deer have not been recorded this far south (Davis 1974; Hall 1981). Both adult and subadult deer are represented in the assemblage.

Family: Bovidae

Bos (domestic cow)

Referred Material: Material consists of cranial and postcranial remains recovered from all units from strata associated with the occupation of the ranch and from strata deposited after the abandonment of the ranch.

Remarks: The bovid material recovered from this site has been assigned to the taxon **Bos** on the basis of historical documentation of cattle living in the ranch environs. It is possible, however, that some of the remains may also represent bison, since this species was present occasionally in the region during historic times as well. Several of the bone fragments recovered evidenced cut marks around the articular ends. Some of the recovered articular ends also evidence gnaw marks from carnivores, possibly from dogs co-habiting the site with humans. Although most of the bovid bones were highly comminuted, as were most of the bones recovered from the site,

there is no direct evidence that the bone was reduced during the process of marrow extraction or the processing of bone grease.

Family: Capridae

Genus: Indeterminate (caprines)

Referred Material: Material consists of cranial and postcranial fragments recovered from all units from strata associated with the period of occupation of the ranch and the period after its abandonment.

Remarks: Distinguishing sheep and goat bones is as notoriously difficult as distinguishing cow and bison, therefore most of the remains representing these two genera are classified within the family Capridae. We do know, however, from historical records and the positively identified remains present in the analyzed sample that both sheep and goats were present at the site.

Capra hircus (domestic goat)

Referred Material: Left scapula from Unit 63, stratum 4, the period of occupation after abandonment of the ranch.

Remarks: The identified archaeological specimen had several features of the articular end of the scapula which compared favorably with the goat specimens available for examination and consistently differed in these features from the sheep specimens which were available for comparison.

Ovis aries (domestic sheep)

Referred Material: Right scapula from Unit 63, stratum 4, the period after the abandonment of the ranch.

Remarks: As with the **Capra** specimen described above, this sheep specimen had several features which compared favorably with the sheep specimens available in the Comparative Faunal Collection, Department of Anthropology, Texas A&M University and differed in these features with the goats with which it was compared.

Family: Suidae

Sus scrofa (domestic pig)

Referred Material: Material consists of a right mandibular fragment recovered from Unit 63, stratum 1, the period after abandonment of the ranch.

Order: Lagomorpha

Family: Leporidae

Sylvilagus (cottontail rabbits)

Referred Material: Material consists of a left distal humerus fragment from Unit 62, stratum 3, from the period of occupation prior to the establishment of the ranch.

Remarks: The location of Rancho de las Cabras lies in the zone of sympatry for *S. floridanus* and *S. audubonii*, so this fragment could belong to either species.

Order: Rodentia

Family: Cricetidae

Neotoma (wood rat)

Referred Material: Material consists of a basal cranial fragment recovered from Unit 62, stratum 3, the period of occupation prior to the establishment of the ranch.

Remarks: Rancho de las Cabras falls within the range of *N. micropus* and near the southern range of *N. albigula*, but the fragment available was not diagnostic enough to distinguish between these two species.

Sigmodon (hispid cotton rat)

Referred Material: Cranial and postcranial elements were recovered from occupations associated with the ranch and after the ranch was abandoned.

Remarks: The large amount of the *Sigmodon* remains were recovered from stratum 1 and represents the remains of several specimens. McClure (1983) also noted the high frequency of small animals, particularly *Sigmodon*, and suggested these remains could be the remnants of owl pellets. Certainly owls or hawks will prey on large numbers of one or a few species of animals, and will deposit the skeletal remains in regurgitated pellets around their nest. The species distribution and the distribution of the bones within the site is also different than would be expected if humans were preying upon the rodents. At prehistoric human habitation sites in south Texas, where the inhabitants harvested small game, more species of small game were recovered in the midden deposits, and the material was scattered more uniformly throughout the sites (see DeMarcey and Steele 1986; Steele 1986, n.d.; Steele and Assad 1986, for American Indian habitation sites from south Texas containing the remains of small mammals).

Family: Geomyidae

Geomys (pocket gopher)

Referred Material: Material consists of the almost complete remains of one subadult specimen recovered from a rodent burrow in Unit 59, stratum 4.

Remarks: The locality of the site lies within the range of both **G. bursarius** and **G. personatus**. The recovered remains compares favorably with **G. bursarius**, the eastern pocket gopher.

Family: Sciuridae

Spermophilus (ground squirrel)

Referred Material: Material consists of postcranial elements recovered from all occupation levels in all units.

Remarks: While McClure (1983) identified several specimens of the large species of **Spermophilus**, the rock squirrel, from the midden remains; the specimens we have recovered are of a smaller species of the ground squirrels such as **S. spilosoma** or **S. mexicanus**, both of which occur within the region.

Class Osteichthyes ¹

Order: Cypriniformes

Family: Ictaluridae

Ictalurus (Catfish)

Referred Material: Material consists of cranial and postcranial remains from periods of occupation prior to the establishment of the ranch, during the period of the ranch, and after the abandonment of the ranch.

Remarks: Based on the number of spines and the range in the size of the vertebrae it is apparent that several specimens of catfish comprise the sample.

Class Aves

Order: Indeterminate (birds)

Referred Material: Material consists of five fragments of bird bone recovered from Unit 62 from deposits associated with the period of occupation of the ranch.

Class Reptilia

Order: Testudines

Family: Indeterminate (turtles)

Referred Material: Material consists of fragments of the carapace and plastron of unidentified specimens of turtles from Units 59 and 62 associated with the period of occupation of the ranch.

Family: Emydidae

Chrysemys (water turtle)

Referred Material: Material consists of three carapace fragments of a large individual of this genus recovered from Unit 63, stratum 4, the period of occupation after abandonment of the ranch.

Family: Trionchidae

Trionyx (spiny soft shell turtle)

Referred Material: Material consists of fragments of the carapace recovered from Unit 63, stratum 4 and Unit 59, stratum 2 from the periods of occupation of the ranch and after its abandonment.

Order: Crocodylia

Family: Alligatoridae

Alligator (alligator)

Referred Material: Material consists of a tooth recovered from Unit 59, stratum 3, and a scut from Unit 62, stratum 1, the period of occupation of the ranch.

Order: Serpentes

Family: Colubridae

cf. **Lampropeltis** (king snake)

Referred Material: Material consists of three vertebrae recovered from Unit 63, stratum 2, the period after the abandonment of the ranch.

Remarks: Although it is difficult to distinguish the genera of Colubridae on the basis of vertebrae, the specimens recovered compared favorably with the king snake **Lampropeltis**.

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