# ARCHAEOLOGICAL INVESTIGATIONS AT ESTANCIA SANTIAGO

By

Michael P. Marshall

With contributions by David H. Snow

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## PREFACE AND ACKNOWLEDGMENTS

The following document concerns the ruins of a 17th century Spanish estancia on the west bank of the Rio Grande, opposite Bernalillo, New Mexico. The estancia is adjacent to Santiago Pueblo (LA 326), a Southern Tiwa Pueblo established about A.D.1450 and subject to a major assault by the Coronado expedition in 1541 (as part of what historians describe as the Tiguex War). Santiago Pueblo is believed to be the Moho Pueblo described in the Coronado expedition's records. Much of the pueblo was destroyed during Coronado's siege, but sections of the pueblo were resettled and the occupation appears to have continued into the 17th century. The pueblo was occupied at the time of initial Spanish colonization in 1598, and is identified as "Santiago" on the 1602 Enrico Martínez Map.

During the early decades of the 17th century, the Tiwa population at the pueblo was likely subject to the Spanish policy of *reducción*, probably with resettlement at the pueblo and mission at Sandia. However, the presence of Glaze F sherds in Santiago Pueblo's south middens, in scattered parts of the room blocks, and in the plaza kiva indicates that parts of the pueblo continued to be inhabited and were contemporaneous with the Juan Esteban de Fagoaga's estancia, built on a high bench point near the southeast corner of pueblo about 1630–1640.

The estancia was a multi-room adobe structure with a front gallery or inset portal. The Spanish artifacts found in the nearby south pueblo room blocks suggest that rooms of the old village accommodated Pueblo families that served the estancia, or were inhabited by estancia residents. Juan Esteban de Fagoaga died in 1662. His family may have continued to use the estancia, but like all others in New Mexico it was abandoned during the Pueblo Revolt of 1680.

Excavations at Santiago Pueblo, including at the estancia, were completed in 1934–1935. However, the project records concerning the estancia are schematic. This is partly because the estancia building was razed to its foundations sometime soon after its abandonment.

In 2013–2015 a comprehensive survey of the south Santiago Pueblo area was completed on a volunteer basis by Clay Mathers and myself. This effort included a systematic metal detection survey, with GPS piece plotting, by Mathers, resulting in a comprehensive examination of the Coronado Expedition's 1541 siege at the pueblo (Mathers 2019, 2020; Mathers and Marshall 2020). The survey also included a detailed artifact analysis of other cultural remains at the site completed by Marshall, including the estancia area, the south pueblo middens, adjacent structural depressions, and the general landscape. In this report only the Estancia Santiago area is discussed, but comparisons with the Santiago Pueblo's south middens are also provided.

Most of the survey work was conducted on land owned by Sandia Pueblo and under permit from Sandia Pueblo and an ARPA permit issued by the Bureau of Indian Affairs. The work could not have been completed without the blessing of Sandia Pueblo Governor Victor Montoya, who recognized the historic importance of this ancestral site, and who wished to see the story told of the resistance and resilience of the Tiwa peoples during and in the wake of the Tiguex War. The artifacts collected during the Santiago South investigations were submitted by Sandia Pueblo to the Maxwell Museum of Anthropology for curation.

During the preparation of this paper in June and July 2020, much assistance and direction concerning Spanish Colonial archaeology and history in New Mexico was provided by Cordelia Snow. A preliminary review of the paper was provided by Peter McKenna, and numerous improvements were made during the final editing by David Phillips. To all of these people, my gratitude.

Michael P. Marshall
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# Chapter 1

# INTRODUCTION

In 1934 and 1935, archaeological excavations on a bench point 50 m from the southeast corner of Pueblo Santiago revealed a "Spanish style" building associated with native earthen wares but also with numerous Spanish artifacts. Some members of the 1934–1935 excavation team believed that LA 326 was Puaray Pueblo and that the Spanish structure was a possible chapel or church (Tichy 1936). Other members of the staff felt reasonably sure that LA 326 was not Puaray Pueblo, since historical evidence places that village on the east bank of the Rio Grande, about 10 km south of Santiago (as shown on the Enrico Martínez map of 1602 [Eidenbach 2012:14–17; see also Snow 1974). Other scholars have identified the Spanish component of LA 326 as a likely *rancho* (Toulouse 1976), probably Estancia de Santiago, founded by Juan Estėban de Fagoaga (Snow 1976). This identification is based on the 1662 testimony by Fagoaga, who referred to his *asistencia y morada* of Santiago, in existence by the 1640s and about 12 leagues from Santo Domingo (Hackett 1937:229) (End Note 1). I agree with this identification and refer to the structure as Estancia de Santiago (and at times as the East Component of the Santiago South study area).

Few archaeological details were recorded during the 1934–1935 excavation of the *rancho*. This is probably because "Only the bare outline of the building foundation remained," suggesting that the building was "purposely destroyed" (Tichy 1939) or robbed for building materials. Part of the structure had cobblestone and adobe foundations, with adobe block walls. Today a few stones are scattered in the area but no clear evidence of foundation alignments is present. Nonetheless, the large number of artifacts, including majolica and other Spanish materials, argues for a somewhat prolonged occupation in the 1600s. The location of Estancia de Santiago is shown in Figure 1.

## Context

Estancia Santiago is a late component of the Santiago Pueblo (LA 326) site complex. The pueblo, now almost entirely destroyed, was a large single-plaza village with 450 excavated rooms and a large kiva, also excavated (Figure 2). The pueblo was inhabited from ca. A.D. 1450 into the 1600s (End Notes).

Bradley Vierra's "The Tiquex Province: A Tale of Two Cities" (1987) summarizes the results of the 1934–1935 excavations at Kuaua and Santiago Pueblo, based on a review of mostly unpublished field notes in the Laboratory of Anthropology archives. Vierra's paper includes descriptions of Santiago Pueblo and Estancia Santiago, a schematic map of the pueblo, a plan of the kiva and a description of its stratigraphy, and a general inventory of artifacts and other materials found at the site.

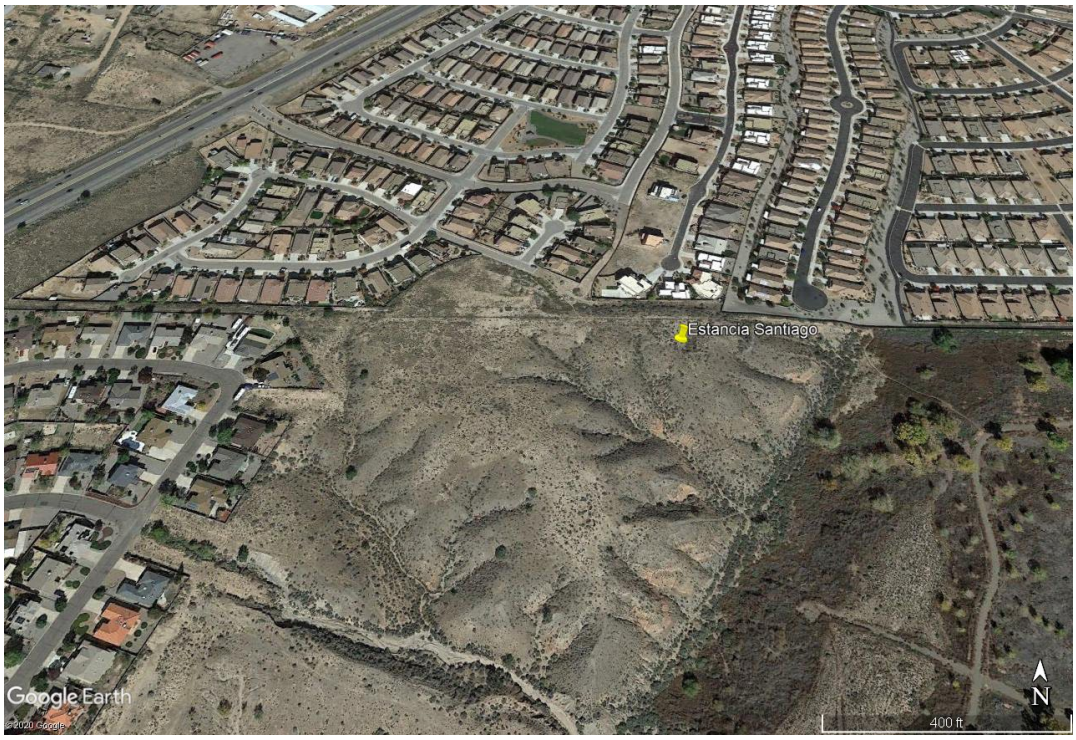


**Figure 1.** Location of Estancia Santiago and the South Santiago Pueblo survey area. View to north. Image source: Google Earth.

**Figure 2.** Aerial photograph of Santiago Pueblo by Gordon Vivian. The image shows the excavated south and west room blocks and the kiva in in the northwest plaza area. View to the north. The estancia site (marked by an arrow) is next to and southeast of the south room block. The outlines of the estancia building are visible, as is the midden test (dark area) to the east. Courtesy Palace of the Governors Photo Archives (NMHM/DCA), Negative No. 042030.

The Estancia Santiago area included three site components as well as scattered materials associated with the 1541 siege of the pueblo by the Coronado expedition. The components include a Pueblo III period (Santa Fe phase) pit house, an adobe and masonry building with associated middens and features dating to the 1600s Spanish occupation of the area, and a minor component reflecting post-Pueblo Revolt use of the area in the early 1700s. Artifacts from nearby Santiago Pueblo may also be mixed into the collections. The midden deposits in the estancia area appear to be mostly associated with the 1600s occupation.

## Other Estancia Sites

This report includes comparisons of the Estancia Santiago site with other Rio Grande estancia locations. Table 1 lists the location and references for each of the additional estancias.

**Table 1. Other Estancia Sites Noted in this Report.**

| Site Name, LA No. | Location | References |
|---|---|---|
| Boyd 16/3, LA 16768 | Lower Santa Fe Drainage | Gabe 2019; Tashjian et. al 1985 |
| Boyd 16/2, LA 16767 | Lower Santa Fe Drainage | Gabe 2019; Tashjian et. al 1985 |
| Boyd 16-1, component of La Cieneguilla Pueblo, LA 16 | La Cieneguilla Area | Roney and Marshall 2019 |
| Sanchez Site, LA 20,000 | La Cienega Area | Connick 2018; Gabe 2019; Snow 1976; Tashjian et al. 1985; Trigg 2020 |
| Las Majadas, LA 591 | Cochiti Area | Gabe 2019; Snow 1973 |
| Cochiti Springs, LA 34 | Cochiti Area | Gave 2019; Snow 1971 |
| Signal Site, LA 9142 | Lower Galisteo Drainage | Alexander 1971; Gabe 2019 |
| Casa Quemada, LA 4955 | 400 m south of Kuaua Pueblo | Gabe 2019; Wiseman et al. 2017 |
| Casa Acequia, LA 44534 | Lower Las Huertas Drainage | Gabe 2019; Marshall et al. 1986 |
| Ojo de la Cabra Estancias Isleta Pueblo Site Nos.IPS-17 and IPS-18 | 14.5 km east of Isleta Pueblo Lower Hells Canyon Arroyo | Marshall et al. 2017 |
| Metzler Site, LA 103997 | Mouth of Comanche Canyon, 24 km SE of Tome Hill | Hibben et al. 1985; Schuyler 2019 |
| Comanche Springs LA 14904 | 16 km east of Tome | Gabe 2019; Hibben et al. 1985; Schuyler 2019 |
| Estancia Acomilla LA 286 | West base of San Acacia Butte-Socorro District | Bletzer 2009; Marshall and Walt 1984 |

**End Note 1**: **Historic Context**

*(by David Snow, 2013)*

Now virtually destroyed by gravel operations, Pueblo Santiago originally was identified by Adolph Bandelier as the Puaray Pueblo of 16th century Spanish *entrada* accounts, although he also recognized that it was, at the same time, called Santiago (Snow 1976). The name "Santiago" first appears on the 1602 Enrico Martínez map and is mentioned in Fray Gerónimo Zárate Salmerón's *Relaciones*, written sometime early in the 1630s (Milich 1966), in which he claimed that a priest martyred in 1580–1581 met his death at "the pueblo called Santiago, a league and a half up the river" from Puaray Pueblo (Milich 1966:35).

This same information was repeated by Fray Alonso de Benavides in his 1634 Memorial (Hodge et al. 1945:55–56), an account possibly obtained by Benavides from Zárate Salmerón, as it is not mentioned in Benavides' 1630 Memorial. The earliest reference to Pueblo Santiago, however, is from the 1602 Enrico Martínez map of the Rio Grande pueblos, prepared on the basis of information obtained from members of Oñate's expedition in 1598. The map correctly shows Pueblo Santiago on the west side of the Rio Grande. The origin of this name is unknown but the connotation of military engagements is suggestive.

The 1602 Martínez map apparently reflects pueblos occupied at the time of the map, as there is no indication that any depicted had been abandoned or were in ruins at the time information was received for preparation of the map. Whether Pueblo Santiago was still occupied when Friars Zárate Salmerón and Benavides were in New Mexico during the 1620s is not known, but it is a possibility, as Rio Grande Glaze F is present (Vierra 1989; see Tichy 1939; Vivian 1934).

How long the pueblo might have been occupied into the 17th century simply is not known. We are ignorant of just when such a grant might have been made, though as early as 1614, Spaniards already were occupying lands in or next to the Sandia mission jurisdiction (Barrett 2012). The mission at Sandia was established as early as 1613, and Sandia Pueblo likely served as the community into which nearby pueblo peoples were congregated. Puaray and Alameda Pueblos, nevertheless, remained occupied as *visitas* of Sandia mission until the 1680 Revolt. The spiritual needs of the Spaniards in Sandia's ecclesiastical jurisdiction were provided by the priest stationed at the mission there.

Immediately south of the southern room block of the former pueblo are the foundations a curious structure that clearly reflects the Spanish Colonial use of cobblestones for foundations. Upon these were laid the adobe bricks of the superstructure (e.g., Tichy 1939). This same foundation technique occurs at other colonial residential sites of 17th century date, including nearby LA 4955 (Casa Quemada), LA 20000 (the Sanchez Site), LA 591 (Las Majadas), LA 34 (Cochiti Springs Site), LA 9142 (the Signal Site), LA 16767 and LA 16768 (the "Santa Fe River sites"), and others.

Vivian (1934:158–159), following Bandelier's conjecture, suggested that the architectural remains off the southeast corner of Santiago Pueblo were of a church or chapel, and he mentioned the recovery of "Spanish porcelain" and Pueblo vessels made in Spanish forms. Tichy (1939:151–154) subsequently expressed some doubt about the feature being a church or chapel, and later investigators have suggested that it was the remains of a secular structure—perhaps a *rancho* (Toulouse 1976), or the home of Juan Estéban de Fagoaga (Snow 1976). It has been suggested, reasonably enough, that the structure was associated with the Estancia de Santiago belonging to Fagoaga, whose *asistencia y morada* were within the jurisdiction of Sandia Pueblo, some 12

leagues from Santa Fe, in 1662. Another document identifies the location as 12 leagues south of Santo Domingo (Barrett 2012:248).

An *asistencia* is defined as a *casa de huéspedes* or a *pieza destinada para las visitas de* confianza—that is, an inn or place of business. (AGN, Inq. T. 593, ff 313–320; T. 582, exp 2, p. 38; 596, f 36ff; AGN, Real Audiencia, Concurso de Peñalosa, Vol. 3, Leg. 1, No. 1, f. 24v [José Antonio Esquibel, personal communication, 2013]). Here, a *morada* is simply a residence, not a *penitente* chapel! Hackett [1937:229] translates *morada* as "farm," which is unlikely, given the location of the site. Also unlikely was the establishment of an inn on the west side of the Rio Grande, since the Camino Real was on the river's east side.

Aged 55 (more or less) when he testified in Santa Fe in April 1662, Fagoaga was a Basque and a single man, a native of the Valle de Ollarzu in the province of Vizcaya, Spain. It is unknown, however, whether Fagoaga's *estancia* was *de labor*, that is, an agricultural grant, or for cattle. The Spanish structure likely was Fagoaga's residence and place of business, whatever the latter might have been. Fagoaga died in May, shortly after his testimony, and was buried at Sandia mission. Nothing more is known about the man or when he arrived in New Mexico. Fagoaga family members were active merchants in Mexico City during the 18th and early 19th centuries.

**End Note 2: Pueblo Santiago (LA 326)**

The first reference to the Pueblo of Santiago, on the west bank of the Rio Grande south of its confluence with the Jemez River, appears on the earliest detailed map of New Mexico, compiled by cartographer Enrico Martínez in 1602 (Eidenbach 2012:14). The fact that Santiago Pueblo is listed on the map, together with the presence of Glaze F ceramics at the site, indicate that the village was re-established after the devastation wrought by Coronado's siege and continued to be inhabited into the 17th Century. Santiago Pueblo is among the oldest mapped Spanish places in the Tiguex Province, and predates the named villages of Sandia Pueblo and Isleta Pueblo. The name given to pueblo, Santiago, during the early colonization period suggests the probability that the name commemorates Coronado's siege at the site.

The pueblo was mentioned by Zarate Salmerón about 1627–1628, in reference to the Chamuscado-Rodriguez expedition of 1580 and the death of the three priests who remained at Puaray Pueblo following the expedition's return to Mexico. Father Juan de Santa Maria was killed by the Tiwas at San Pablo Pueblo east of the "Puaray Mountains" (Sandia Mountains). Fray Francisco Lopez was killed near the village of Puaray; following his death, "The captain of the pueblo showed signs of sorrow over the death of the [priest], and in order that the same thing should not happen to the lay priest who was left behind (Fray Agustin Ruiz) he took him with him to the pueblo called Santiago, a league and a half up the river. Here he guarded him as carefully as he could but, in an unmindful moment, the Indians came and did the same thing, killing Fray Agustin Ruiz also, and threw his body into the river which was at high water" (Milich 1966:35).

Sandia Pueblo is on the east bank of the Rio Grande, 6.3 km southeast of Santiago. Sandia was one of the principal Tiwa villages during the prehistoric period and was well established as a large adobe pueblo by the 14th century (Marshall 2008). The traditional Tiwa name for Sandia is Nafait (Dusty Place) and is likely the village of Napeya listed in the Oñate records (Hodge 1910:429 ). The pueblo appears as one of number of sites identified as the Pueblos del Valle de Puará on the Enrico Martínez Map (Eidenbach 2012:16–17). The earliest (ca. 1627–1628) Spanish name for Sandia Mountain was Sierra de Puaray (Salmerón, in Milich 1966:34), named after the Tiwa Pueblo of Puaray first identified in the 1581 Gallegos *relación* of the Chamuscado-

Rodriguez Expedition (Hammond and Rey 1966:104). The same pueblo, albeit called Puala, is described in Espejo documents of 1583 (Hammond and Rey 1966:177).The name Sandia does not appear on the 1602 Enrico Martínez map but it was likely one of the pueblos in the group referred to as Valle de Puará. The first mention of the name San Francisco de Sandia is about 1610 (Kessell 1980:138), when the mission was founded. The name was used soon afterward, in 1612, by Fray Isidro Ordóñez (Ebright et al. 2014:124).

Considering the early (1602) reference to the Pueblo of Santiago and the rather odd and uncharacteristic early Spanish use of the name Sandia (watermelon), John Sinclair (1980) considered the possibility that the mountain range was earlier named Sierra Santiago, which became corrupted to Sierra Sandia. "The early Franciscans were the name givers. And why name a mountain for a vegetable when a saint is available?" (Sinclair 1980:185). David Snow has dismissed "the rather tortured Watermelon—Sunset on the Mountain fable" (personal communication, 2014). The name Sandia is often spelled in Territorial period documents as San Dia, suggesting a reference to Santo Día (Holy Day). However, this is likely an interpretation of early Anglo-American travelers, little familiar with the Spanish language. Perhaps the term Sandia was a Spanish corruption of the traditional pueblo name *T'uf Shurn Tia* (Green Reed Place), with *Shurn Tia* being heard as Sandia (Ebright et al. 2004:123).

## Chapter 2

## SITE DESCRIPTION

Most of the Santiago Pueblo site complex was destroyed by a gravel pit and dairy operation and is now a suburban housing development. However, the south margins of the pueblo complex remain relatively intact, including the area of Estancia Santiago (Figures 1 and 2). The estancia was built on a high gravel bench point about 50 m southeast of the pueblo, and extends over an area measuring 50 m north-south by 70 m east-west. In 2013–2015, the Santiago South survey project identified the features shown in Figure 3. These include the scattered remnants of the estancia building (Feature E-4), a large depression from a former test trench in what appears to have been a trash-filled borrow pit (Feature E-1), two large bench edge middens dating to the 17th century (Features E-3 and E-5), and a Pueblo III period pit house depression (Feature E-2).

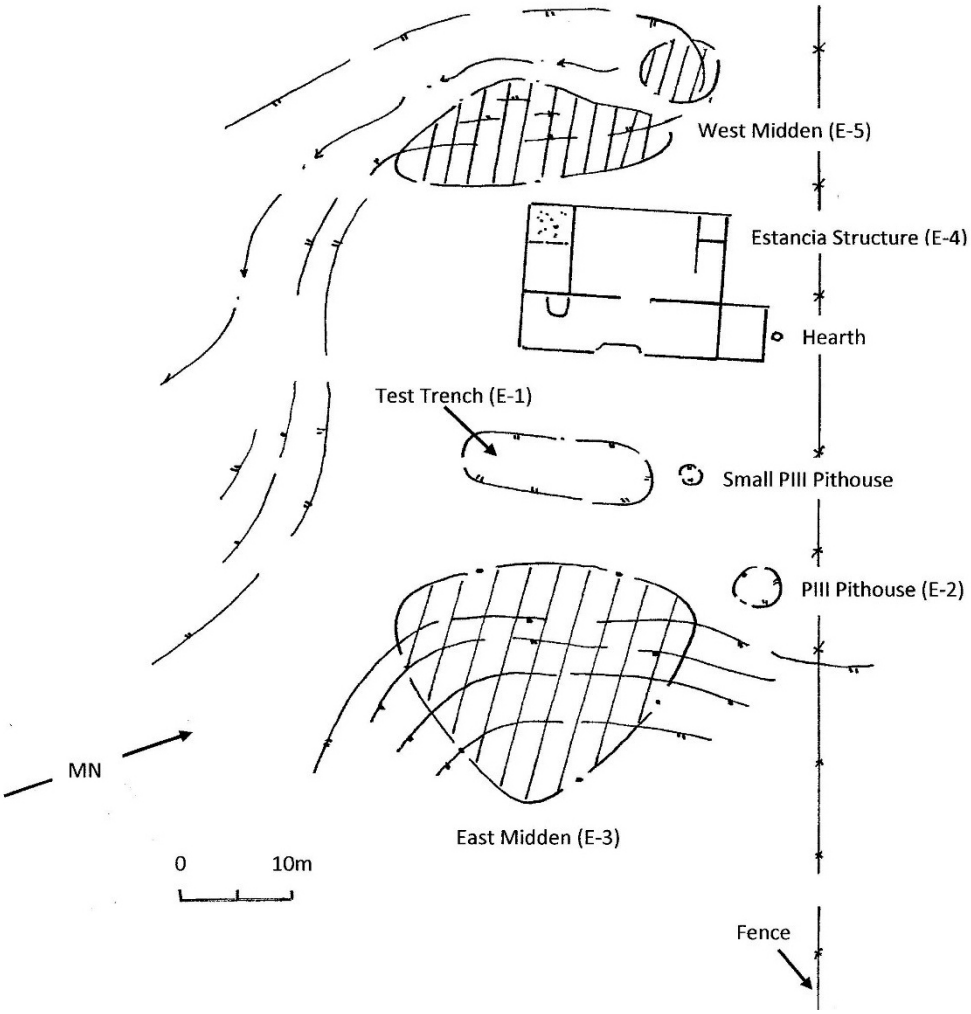


**Figure 3.** Estancia Santiago site map. Based on survey work in 2013–2015, with Hendron's 1934–1935 estancia building added.

Artifact samples were taken from each of these feature areas, but revealed no significant inter-provenience variation. The ceramic samples indicate that the primary component is Spanish, from the 17th century. Scattered sherds from a Pueblo III period component and a few post-Revolt sherds are also present. The post-Revolt sherds, which are highly fragmentary, suggest early 18th century short term use of the area, either as a camp or perhaps related to the removal of building materials from the site.

## The Estancia Building (Feature E-4)

According to Hendron's 1934–1935 field map, the main building of the estancia was about 13 by 16 m in plan, with an appended north room that measured about 5 by 5 m. The largest room in the structure measured 5.5 by 12 m. It had two bin-like structures at the north wall. A 3.5 m wide central entryway in the east wall suggested a possible double door. This room had rather massive foundation walls, about 1.0 m thick, of adobe and rock.

Other walls in the structure were less substantial (about 30 to 55 cm) and were either adobe or adobe and rock.

> A general summing up of the building would be to describe it as being enclosed entirely on three sides by thick walls of stone and adobe, and partially enclosed on the southeastern side, by a somewhat narrow adobe wall of a later date (evidence for later construction?), for most of the original wall on this side had disappeared. The southeastern side may have had some sort of a portal at one time, and this side most likely contained the main entrance. If one will note the ground plan it will also be seen that additional walls, or possibly parts of old buttresses, appear at various exterior points. Note that the interior of the building is divided into several small rooms. However, these dividing walls, of inferior construction, appeared to have been set in after the main building was finished [Tichy 1939].

This confusing description is probably due to the poor condition of the structural remains at the time of excavation. Some of the structural descriptions from the excavations are difficult to follow and the map published in *El Palacio* (Tichy 1939) is cropped, leaving out adjacent structures and features. Figure 3 represents a "best estimate" redrafted site plan, following Hendron's map, his field note measurements, and information recorded in 2013–2015.

Today the estancia building is defined by scattered stones (Feature E-4) in the west part of the bench top, extending 25 m north-south by 10 m east-west. These stones are from a foundation; there is no evidence of a low mound or of adobe-derived soil, and only one short wall alignment. The stones are cobbles and clasts measuring 10 to 30 cm across and are mostly fine-grained basalt and quartzite, with lesser quantities of vesicular basalt, sandstone, and limestone. All of these rock types are native to adjacent bench slopes.

Of a more closely examined sample of 75 stones, two were metate fragments and one was a fragment of a large sandstone mortar. This last was the only mortar found during the 2013–2015 fieldwork.

The rock scatter also included two large, very carefully shaped pieces of ground stone, unlike the less formal, predominately basalt metates and manos on the pueblo middens. One was a large, thick slab metate and the other was a large two hand mano; both were of coarse white sandstone or quartzite. I suspect that these two grinding stones indicate Spanish Colonial use. Ground stone is common throughout the estancia area, as are tabular sandstone spalls and slabs which may have been from *comales* (griddle stones).

## The Trash Pit Test (Feature E-1)

A trash deposit 7 m east of the estancia building, on top of the bench, was tested during the 1934–1935 excavation. The trench was placed in a depression which was thought to be kiva, but . proved to be a 1 m deep, trash-filled pit. Today the location is marked by a large rectangular pit (5 by 16 m across, 1 m deep), most likely enlarged by treasure hunters. The original test found bands of ash, of dark charcoal-laden soil, and of trash. According to the field notes, this fill contained numerous artifacts and "a tremendous number and variety of animal bones, numbering 12 to 15 filled or partially filled sacks" (Hendron 1934–1935).

The depth of the trash deposits, on an otherwise level bench, indicates that the feature was a trash-filled borrow pit. A similar trash-filled pit was found at Comanche Springs (Hibben 1985) and next to both of the Ojo de la Cabra estancias (Marshall et al. 2017). Like the Estancia Santiago trash pit, the Comanche Springs contained a large number of artifacts. The Spanish must have excavated the pits to obtain material for adobe, then filled the pits with trash.

## The Bench Edge Middens

The 2013–2015 survey identified two large bench edge middens from the 17$^{th}$ century. The 1934–1935 excavation notes make no mention of these middens. Backfill from the excavation may have been dumped in these areas, but most of the deposits are likely in situ midden. Many thousands of artifacts are present in these midden areas.

### The East Midden (Feature E-3)

This midden is on the east edge of the bench edge and on the adjacent slope. The deposit is a 30 to 50 cm high mound of charcoal-stained soil, which extends 20 m east-west by 26 m north-south. The deposit contains an estimated 200 cubic meters of fill. A few cobbles are scattered over the mound surface. The density of surface sherds ranges from 20 to 45 per square meter.

Lithic material is considerably less dense, at 3 to 5 specimens per square meter. Obsidian is uncommon compared to the pueblo middens. Bone fragments range from 1 to 9 per square meter. Most of the bone is burned; it includes large and small mammal bone and one fish vertebra. Majolica, olive jar, porcelain, and flat glass fragments occur in minor quantities. One of the Tewa Polychrome sherds is a soup plate. A single Jemez Black-on-white sherd was also found.

### The West Midden (Feature E-5)

This midden is just west of the estancia building. The midden is on the west end of the bench and on the adjacent slope drained by the west arroyo. This midden is about 28 m north-south by 10 m east-west. The midden has an estimated mean depth of 25 cm and contains about 70 cubic meters of midden fill. Artifact density counts are highest on top of the west edge of the bench, near the scattered cobblestones, and on the upper slope of the west arroyo. Surface sherd densities range from 40 to 75 per square meter, with lithic densities of 2 to 8 specimens per square meter. No bones were noted in this midden area. Another section of this midden, about 5 by 7 across, is located at the head (north end) of the west arroyo. Almost all of the olive jar fragments recovered from the site came from this arroyo head location.

## Circular Pit House Depression (Feature E-2)

A circular depression is located 4 m south of the section fence, on the east edge of the bench. This feature is the Pueblo III period pit house excavated in 1934–1935. The depression measures 6.0 m in diameter, and is surrounded by a low berm, 2 to 3 m wide, of soil and gravel 2. The depression is 1 m deep. An analysis of sherds surrounding the depression showed that they resembled the mixed assemblage found elsewhere in East Component area. A second small pit structure was found nearby (Feature J on the Hendron map), but no evidence of this structure is evident today.

# Chapter 3

# NATIVE AMERICAN CERAMICS

This chapter begins by examining the predominantly 17th century Puebloan ceramic material recovered from the 2013–2015 Estancia Santiago survey and comparing it to materials recorded from the South Santiago pueblo middens and the sample obtained from the excavation of a nearby 16th century camp, LA 54147 (Marshall 1989). This work was undertaken in an effort to gain insights into the nature, similarities, and differences among the ceramic assemblages from these different contexts. I also discuss the contemporary Colono Form ceramics and provide brief notes on ceramic materials from the early Pueblo III period component and on the few scattered Post-Revolt (early 18th Century) sherds.

## The 17th Century Estancia Ceramics and Comparisons with Materials Found Elsewhere in the Santiago South Study Area

Rim forms are shown in Figure 4. The estancia assemblage is characterized by a high incidence of plain (undecorated) glazeware sherds, many from vessels with direct rims and hemispherical form (End Note 1), by a moderately low utility ware index, by nearly equal frequencies of Glaze E and F forms, and by a diversity of temper types similar to those for the pueblo midden and encampment samples. Other ceramics include seven sherds of Tewa Bichrome and Polychrome, including one Tewa soup bowl and one sherd of Acoma red-slipped glazeware. Utility ware ceramics are entirely plain, with polished interiors. Most utility ware is tempered with basalt, but some specimens are tempered with quartz sand or granitic sand.

The pueblo middens exhibit a wider range of glazeware rim forms, as they were in use long before the 17th century, but like the estancia they include a fair number of E–F forms. Utility ware frequencies in the pueblo middens are somewhat higher than those of the estancia and the camp (LA 54147). The ratio of sherds to pieces of chipped stone from the pueblo middens is 4.2:1, somewhat similar to the estancia index, 4.0:1 (534 sherds, 134 pieces of chipped stone).

The camp (LA 54147) has a predominance of Glaze E (with no F rims), a moderately low utility index, and an inordinate number of glazeware jar sherds (nearly twice the frequency seen from the estancia and pueblo middens). The camp also has an extremely high ratio of sherds to pieces of chipped stone (40.3:1). In other words, when compared to sherds, chipped stone was about 1/3 to 1/4 as common at the camp as in the estancia and pueblo middens.

The counts of rim forms from various proveniences in the area are provided in Table 2 (End Note 2). Proportionally, direct (Glaze A) rim forms are most common in the estancia sample (44 percent of the total) and occur in lesser numbers in the pueblo's south middens (9 percent) and the encampment site (17 percent). Most of the direct rims from the estancia are from hemispherical cups or small bowls, which are most likely Colono Ware (forms made by the Pueblos for Spanish use).

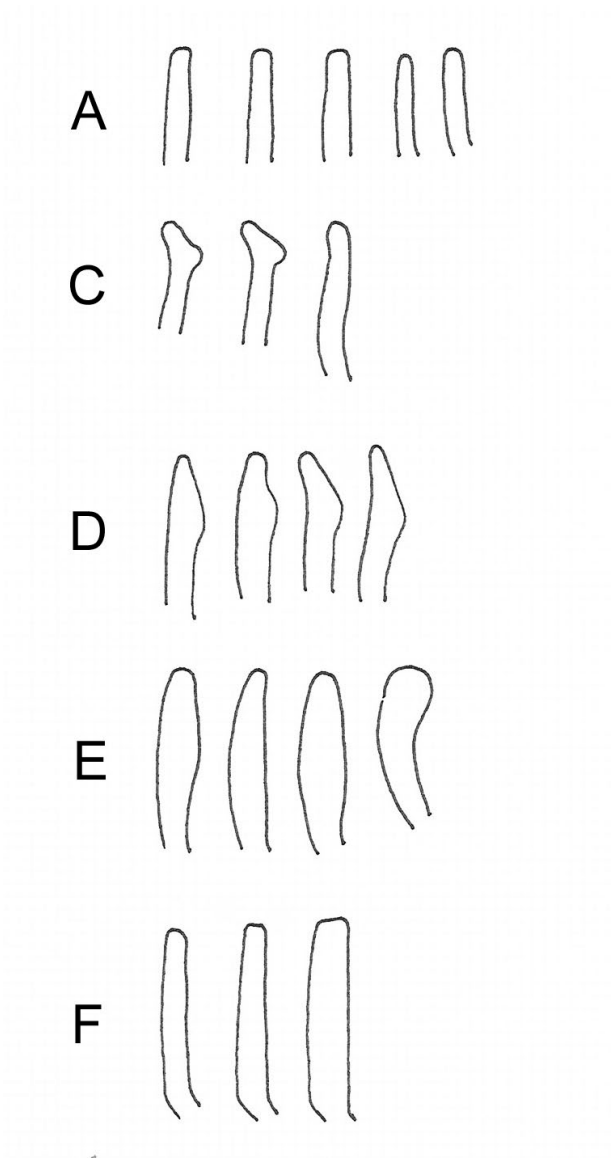


**Figure 4.** Glazeware rim forms from Estancia Santiago.

**Table 2. Glazeware Rim Forms.**

| Provenience | A | B | C | D | E | F | Total |
|---|---|---|---|---|---|---|---|
| Estancia | 29 | 0 | 6 | 7 | 13 | 11 | 66 |
| Pueblo south middens | 9 | 1 | 5 | 18 | 44 | 27 | 104 |
| Camp (LA 54147) | 32 | 0 | 7 | 18 | 135 | 0 | 192 |

Glaze E forms are most frequent in the camp (70 percent), followed by the south middens (42 percent) and the estancia (20 percent). Glaze F forms occurred at the estancia (17 percent) and in the pueblo's south middens (26 percent), but were not present in the camp. The Glaze F rims indicate that the pueblo and the estancia were occupied well into the 17$^{th}$ century.

Rims of C, D and perhaps a few E sherds from the Estancia Santiago collection may represent scattered debris from the Pueblo occupation, prior to establishment of the estancia. However, there is no evidence of an early pueblo midden in the East Component (estancia) area.

The absence of typical (Agua Fria and San Clemente) Glaze A variants, the near-absence of Glaze B material, and the low incidence of C forms suggest that the occupation of Santiago Pueblo probably did not begin until about the time Glaze D was introduced in the second half of the 15th century. This is much later than the early 14th century founding dates for nearby Kuaua Pueblo and other Tiwa pueblos in the area. Santiago Pueblo may have been established by a faction from a nearby pueblo, or that it was a scion pueblo. In any event, they probably were a displaced population, thus one more likely to take a defensive posture. In turn, this may explain the pueblo's fairly defensible location, its layout (compact, with a single plaza and narrow entry), and why Santiago's inhabitants so vigorously resisted Coronado's invasion

The sherds in the Santiago Pueblo area are broken down by service versus utility wares in Table 3. The sample from the Estancia Santiago east midden revealed a low relative frequency of utility sherds (37 percent) compared to those with decorated or polished services (62 percent). The relative frequency of utility sherds is lower than for the pueblo middens (53 percent) but similar to that for the camp (LA 54147; 44 percent). Ceramic samples from nearby estancias also reveal a low incidence of utility material (19 percent at Casa Acequia in the Las Huertas drainage; 33 percent at Casa Quemada, just south of Kuaua Pueblo). It appears that at estancia sites in general, the relative frequency of utility ware sherds is lower than at nearby pueblos. This is especially evident at the Ojo de la Cabra estancias (east of Isleta Pueblo), where,utility ware sherds are 4 percent of the total at IPS 18 and only 0.4% at IPS-18 (Marshall et al. 2017). The lowest relative frequencies of utility wares seem to occur at *rancho*-like estancias somewhat distant from native pueblos, while being more common at sites near those pueblos (Casa Quemada near Kuaua, Estancia Santiago near Santiago Pueblo). The overall low incidence of native utility ware vessels at estancia sites may reflect differences in culinary habits or perhaps the use of copper kettles by the Spanish.

**Table 3. Utility Ware Sherds Versus Service Ware Sherds.**

| Provenience | Utility Wares | Service Wares | Total |
|---|---|---|---|
| Estancia Santiago | 178 (37.2%) | 300 (62.8%) | 478 (100.0%) |
| Pueblo south middens | 874 (53.4%) | 762 (46.6%) | 1636 (100.0%) |
| Camp (LA 54147) | 2570 (43.5%) | 3336 (56.5%) | 5906 (100.0%) |

The frequencies of glazeware bowl and jar sherds are shown in Table 4. The relative incidence of glazeware bowls and jars at Estancia Santiago is similar to that for the sample from the south pueblo middens. Jar sherds are much more common in the glazeware sample from the camp (LA 54147), as I have noted previously (Marshall 1989:112–115). The camp assemblage is atypical of assemblages in Pueblo villages, which may relate to its transient nature.

**Table 4. Glazeware Sherds by Vessel Form.**

| Provenience | Bowls | Jars | Total |
|---|---|---|---|
| Estancia Santiago | 625 (79.2%) | 164 (20.8%) | 789 (100.0%) |
| Pueblo south middens | 729 (75.0%) | 243 (25.0%) | 972 (100.0%) |
| Camp (LA 54147) | 1473 (52.6%) | 1330 (47.4%) | 2803 (100.0%) |

High temper type diversity is evident in all of the sample areas, reflecting the use of both local and imported glazeware vessels (Table 5). The most common temper types are basalt and rhyolitic tuff, which may indicate vessels made locally or nearby. However, a significant number of vessels were imported from Tonque Pueblo (18 percent of the sherds) and from the San Marcos area (15 percent). The only obvious internal differences in the sample group are the high frequency of rhyolitic tuff and crushed white rock in sherds from the camp (LA 54147) and the high incidence of Tonque-derived material in the south pueblo middens.

**Table 5. Glazeware Temper Types by Provenience.**

| Temper | Estancia | South Middens | LA 54147 |
|---|---|---|---|
| Basalt | 303 (36.3%) | 393 (38.9%) | 872 (31.3%) |
| Rhyolitic tuff | 159 (19.0%) | 144 (14.3%) | 916 (32.8%) |
| Tonque—hornblende latite | 181 (21.7%) | 323 (32.0%) | 350 (12.5%) |
| Crushed white rock (San Marcos area) | 56 (6.7%) | 48 (4.8%) | 608 (21.8%) |
| Granitic sand | 4 (0.5%) | 0 | 0 |
| Sand | 123 (14.7%) | 101 (10.0%) | 23 (0.8%) |
| Scoria | 3 (0.4%) | 0 | 20 (0.7%) |
| Sherd—Acoma | 6 (0.7%) | 1 (0.1%) | 1 (0.0%) |
| Total | 835 (100.0%) | 1010 (100.0%) | 2790 (100.0%) |

The incidence of unpainted versus glaze painted sherds was recorded for the estancia and south midden areas (Table 6). Many body sherds from Rio Grande Glaze Ware vessels are plain, so the relative frequency of painted vessels was higher than the numbers in Table 6 suggest. The variations in frequencies shown in that table do reflect, in a general way, the relative numbers of plain versus decorated vessels. There was a high incidence of plain polished materials at the estancia relative to the pueblo middens. Many of these plain polished vessels were small hemispherical cups and bowls (with an 8 to 10 cm rim diameter, that of a standard coffee cup), which for the most part do not occur in the pueblo middens (End Note 3). A comparison with the Ojo de la Cabra estancia sites, IPS 17 and 18, revealed that the incidence of plain vessels is even higher in some estancia locations (Marshall at al. 2017).

**Table 6. Plain Versus Glaze Painted Sherds.**

| Provenience | Plain | Glaze Paint | Total |
|---|---|---|---|
| Estancia Santiago | 543 (69.3%) | 241 (30.7%) | 784 (100.0%) |
| Pueblo south middens | 479 (40.7%) | 697 (59.3%) | 1176 (100.0%) |
| Ojo de la Cabra IPS 17 | 421 (94.2%) | 26 (5.8%) | 447 (100.0%) |
| Ojo de la Cabra IPS 18 | 362 (85.4%) | 62 (14.6%) | 424 (100.0%) |

The incidence of sherds versus chipped stone artifacts is shown in Table 7. It is likely that some of the chipped stone in the estancia sample derives from the Pueblo III period component, so the ratio of sherds to chipped stone should not be taken as typical of 17th century estancias. It is at least clear that the incidence of chipped stone relative to sherds is much lower in the sample from the camp (LA 54147).

**Table 7. Sherds Versus Chipped Stone.**

| Provenience | Sherds | Chipped Stone | Total |
|---|---|---|---|
| Estancia Santiago | 534 (80.0%) | 134 (20.0%) | 668 (100.0%) |
| Pueblo south middens | 1339 (81.4%) | 306 (18.6%) | 1645 (100.0%) |
| Camp (LA 54147) | 6597 (97.6%) | 161 (2.4%) | 6758 (100.0%) |

No gunflints have been identified from Estancia Santiago, whereas they appear at various other 17th century estancia sites (Gabe 2019:275). This may be because they were not recognized during the 1934–1935 excavations and because the sample size from the recent survey is rather small.

## Colono Form Ceramics

The Colono Form ceramics found at Estancia Santiago were made by local Native Americans but in Spanish shapes. I use the term Colono Form, rather than the more common Colonoware, since the Pueblos that produced vessels in Spanish shapes did so as part of separate local pottery-making traditions. To identify these vessels as a single ware, when they came from multiple long-established Puebloan wares, seems inconsistent.

### 1934–1935 Excavation

Numerous Colono Form sherds were recovered from Estancia Santiago and the South Santiago Pueblo room blocks during the 1934–1935 excavation. The Colono Form types listed in the notes include soup bowls, candleholders, and ring-based vessels. These are not described, and little specific provenience information is provided. Tichy's 1939 report states only that "A small clay horse's head was removed from the refuse of the Spanish structure" and that "A number of fragmentary candleholders were found in the refuse of the Spanish structure and in the rooms of the West and South House" (i.e., the west and south pueblo room blocks; Tichy 1939:158).

Based on a partial review of the Museum of Indian Arts and Culture (MIAC) inventory for LA 326, that inventory includes, at a minimum, the following Colono Form items: five cups, two candleholders, a polished red pitcher, and a ringed-based vessel. One ringed-based, tan-red, polished sherd from the kiva (MIAC No. 44584/11) apparently came from a four-sided vessel, unlike any Puebloan Colono Form known to me. This specimen is most likely a Native Mexican import.

A Kotyiti Glaze-on-tan cup from LA 326 is illustrated in Figure 5. It has a flat base, about 8 cm in diameter, and a handle made from a squared single coil. The walls, almost cylindrical, expand upward to a 10 cm rim diameter. A second handled cup from the pueblo (Kotyiti Glaze-on-red cup; MIAC No. 49915/11; Section 9, Room No. 3) is illustrated by Gordon Wilson (1984:62). On that cup as well, the wall expands upward, to a thin, flaring, ticked rim. The base is rounded to flat. The vertical handle is a broad strap.


**Figure 5.** Colono Form Kotyiti Glaze-on-tan cup from LA 326. MIAC Collections, No. 43110. Photographed by Carol Price for the Pottery Typology Project, Office of Archaeological Studies (Wilson 2022). Used by permission.

It would be useful to examine the materials from LA 326 (Santiago Pueblo) curated at the MIAC and Maxwell Museum of Anthropology, to obtain details on Colono Form types and frequencies.

**2013–2015 Surface Survey**

During the recent surface survey, the only Colono Forms identified included a single ring-based plain glazeware and a Tewa Polychrome soup bowl. The many polished plain sherds from small

cups and bowls found during the 2013–2015 surface collections are also probable Colono Form, in that they were made for Spanish use and were rarely found on the south pueblo middens. While ceramic spindle whorls are not a Colono Form item, their distribution is suggestive. They are present in the Estancia samples, but none was found in the Pueblo middens during the recent surface surveys.

## Pueblo III Period Component

A single pit house and a small circular near-surface structure were also excavated in the East Component (estancia) area. These features dated to the Santa Fe phase (early Pueblo III period, ca. A.D. 1150–1250).

The pit house (Feature R or Pit Structure No. 2), about 15 m northeast of the estancia building, was about 4.3 m in diameter. The structure is visible today as a conspicuous depression just south of the section fence line.

Based on Hendron's 1934–1935 field notes, the near-surface room (Feature J) was about 10 m east of the estancia building, was circular, and measured about 1.8 m in diameter and 43 cm in depth. No evidence of the near-surface room survives today.

Ceramic evidence of a Pueblo III period occupation in the estancia area included 69 sherds of Santa Fe phase affinity (Table 8). The painted sherds are mostly Santa Fe Black-on-white (either confirmed or probable) but also include two sherds of Socorro Black-on-white and one of St. Johns Polychrome.

The utility sherds are corrugated and blind corrugated and are mostly tempered with sand or schist. These sherds were scattered over the entire estancia site. No evidence of this early occupation was noted in other parts of the Santiago South survey area, but two small Pueblo III period sites have been identified on bench edges to the south.

**Table 8. Sherds Associated with the Santa Fe Phase Component.**

| Type or Ware | Count |
|---|---|
| Santa Fe Black-on-white | 23 |
| Probable Santa Fe Black-on-white | 19 |
| Socorro Black-on-white | 2 |
| St. Johns Polychrome | 1 |
| Plain and corrugated, schist temper | 5 |
| Corrugated-indented (wide coil), basalt temper | 1 |
| Plain and blind corrugated, sand temper | 1 |
| Plain and blind corrugated, granitic sand temper | 7 |
| Corrugated-indented, sand temper* | 8 |
| Lino Gray | 2 |
| Total | 69 |

*Including 1 Cibola Gray Ware

## Post-Revolt (Early 18th Century) Component

Thirty-nine sherds indicative of a post-Revolt, probably short-term use of the estancia area were found (Table 9). These sherds were scattered throughout the estancia site. None of the utility sherds were assigned to this late reoccupation, but some of the sand-tempered utility pottery recorded at the site was most likely of post-Revolt affinity. Thick sand-tempered utility wares, typical of later 18th century assemblages in the Bernalillo area, were not found. Also lacking are wares such as the locally made, Kapo style black polished pottery common at Sandia Pueblo, which was reoccupied in 1748 (Marshall 2008). It appears that the post-Revolt reuse of the estancia area dated to the early 1700s and was related to short-term use of the area, or to the quarrying of building materials.

**Table 9. Post-Revolt Sherds.**

| Description | Count |
|---|---|
| *Basalt-tempered group (Zia)* | |
| Plain red | 8 |
| Mineral paint bichrome | 10 |
| Mineral paint polychrome | 1 |
| *Sand-tempered group (Santa Ana)* | |
| Plain red | 16 |
| Mineral paint bichrome | 2 |
| Mineral paint polychrome | 2 |
| Total | 39 |

**End Note 1: Direct Rim Forms**

The direct rims on hemispherical bowls found at Estancia Santiago are similar to Glaze A rim forms identified by Mera (1933) and others. However, most of the glazeware sherds with direct rims identified at Santiago are clearly not Glaze A (Agua Fria and San Clemente) types. Direct rims are found in lesser numbers throughout the glazeware continuum, and in some areas continued to be common after the nominal end of Glaze A production. Glaze A rims occur in association with D and E rims at sites in the southern glazeware production area, including at Pottery Mound Pueblo (Marshall 2021). The direct rims at Estancia Santiago and in many other estancia sites of the 17th century are most often on smaller hemispherical bowls associated with Glaze E and F forms. In some cases, an undecorated direct rim edge might be mistaken for a Glaze F, but larger sherds will or will not display the F form with its abrupt angle change in the upper wall. Like the direct rim materials from Estancia Santiago, these later materials are often undecorated and were made primarily for Spanish use.

**End Note 2: Dating of Glazeware Rim Forms.**

The dating of Rio Grande Glaze Ware bowl rims developed by Mera (1933), Oppelt (1988), and others, should be considered approximate, with a good deal of overlap in the rim forms in samples from specific single component locations. In general, the earlier materials with A to C rims display matte glazeware paint, contrasting with the later, D to F, sculpted rims with more vitric glaze paint. Glaze C rim forms seem to have emerged in the early 15th century, persisting into later periods. It also appears that rim sculpting began earlier in some areas, such as the Galisteo Basin, than in others. In general, Glaze D rims began to become popular in the late 15th century, Glaze E in the 16th century, and Glaze F in the 17th century.

Based on tree-ring-based cross-dating reported by McKenna and Miles (1991) and a 17th century stratigraphic section at the Isleta Pueblo Mission, from 1613–1680 (Marshall 2015), an overlap in Glaze E and F rim forms occurred between 1625 and 1650, followed by almost exclusive use of Glaze F and higher frequencies of plain sherds from glazeware vessels between 1650 and 1681. Unfortunately, this sequence of, and overlap in, E and F forms does little to shed light on the beginning and end dates for Estancia Santiago.

**End Note 3: High Incidence of Late 17th Century Undecorated Glazeware**

Rio Grande sherds from the late 17th century, attributable to the glazeware tradition based on paste, are often plain (i.e., not painted). In the Isleta Pueblo mission samples, early 17th century deposits showed a higher incidence of glaze paint decorated vessels, while late 17th century deposits showed a higher incidence of plain polished vessels (Marshall 2015:71). This shift may have been a general trend in the region. The increased incidence of plain vessels is more evident in sites of Spanish affinity, since Pueblo potters who supplied the vessels (in trade or as tribute) often left off the glaze paint decorations. It is not clear whether the Spanish directed the potters to leave off pagan motifs, or if the potters simply did not bother with the extra work.

In some instances, the low incidence of decorated glazeware vessels is extreme. At the Ojo de la Cabra estancia sites, the dominant imports came from Isleta Pueblo, and exhibit only a trace of glaze paint decoration. Most of the glaze painted material found at those estancia sites was instead imported from the pueblos of the eastern Manzano Mountains. In turn, this pattern suggests that at some 17th century pueblos, vessels of the glazeware tradition were more likely to be painted than at others.

# Chapter 4

# SPANISH ARTIFACTS

It is not possible to determine the precise number of Spanish-made artifacts recovered from Estancia Santiago and Santiago Pueblo. Between the numbers listed in Hendron's field notes and the items found during the recent survey, the minimum count is 352 majolica fragments, 27 olive jar sherds, four glass fragments, two green glaze specimens, one sherd resembling a bizcocho tile, 44 spindle whorls, and 11 metal items. Spanish artifacts described by Goggin (1968) and Plowden (1958) may not be included in these counts. Most of this material, including the items found during the recent survey, are curated by the Museum of New Mexico and the Maxwell Museum of Anthropology.

## Overview

### 1934–1935 Excavation

Most of the 17th century Spanish materials recovered during the 1934–1935 excavation came from the estancia component and the southern part of the adjacent pueblo room block, but some Spanish items were also found in the kiva midden fill, 125 meters northwest of the estancia.

Hendron's 1934–1935 field notes identify the following materials from the test trench in the trash-filled pit east of the Spanish structure: 54 "Spanish porcelain" (majolica) specimens, 12 "Spanish wine jar sherds" (olive jars), and 18 ceramic spindle whorls. In the same field notes, Spanish artifacts found in the building area of the estancia include 248 Spanish "porcelain sherds" (majolica), six olive jar sherds, a fragment of a copper object, an iron knife point, a possible iron hook, and 12 spindle whorls. Many small, crudely formed, unpainted bird and animal figurines, including a clay horse's head, were also found. Four fragments of copper tubing identified from the "Spanish Structure" are likely aglets associated with Coronado's siege.

Spanish artifacts listed in the 1934–1935 excavation records, but not tabulated or identified by provenience, include numerous majolica fragments, a copper knife blade, "pen-points" (crossbow quarrel heads; see Ellis 1957), iron spikes, nails, part of a probable hatchet, iron mesh (chain mail), and a piece of gold leaf from the kiva (this may be copper-tinted mica). Also present were a number of plain polished candleholders. It can be seen from this brief inventory that the items found in 1934–1935 include chain mail, crossbow quarrel heads, aglets, nails, and perhaps other materials associated with Coronado's siege of the pueblo—of which the 1934–1935 excavators were unaware.

Vierra's 1989 report describes and illustrates multiple items from the 1934–1935 excavation, now at the Museum of New Mexico. They include a pitcher handle and plowshare blade from the estancia structure and a cinch ring, an axe blade, and a blade fragment from sheep shears from the south pueblo room block (Vierra 1989:143–144). These items, not mentioned by Tichy (1939), probably were associated with the estancia.

Table 10 lists the majolica types at the sites and their estimated dates. The Ichetucknee Blue-on-white was tentatively identified by David Snow (End Note). Many of the majolica fragments from the Santiago Estancia component are rather small, so some type identifications are considered tentative. Specific beginning and end dates for New Mexico may require revision after further research.

**Table 10. Estimated Dates for Selected Majolica Types from LA 326.**

| Type | Florida Museum of Nat. Hist. 2022 | Goggin 1968 (Number Listed) | Plowden 1958 (Number Listed) |
|---|---|---|---|
| Ichetucknee Blue-on-white | 1600–1650 | 1550–1625 | 1550–1650 |
| San Luis Blue-on-white | 1550–1650 | 1630–1690 | 1635–1700 (1) |
| San Luis Polychrome* | 1650–1750 | 1660–1720 | |
| Fig Springs Polychrome | 1610–1660 | 1610–1660 | 1615–1650 (12) |
| Puebla Polychrome | 1650–1725 | 1650–1700 (5) | 1650–1700 (9) |
| Puebla Blue-on-white | 1675–1800 | 1700–1850 | (58) |
| Abo Polychrome | 1650–1750 | (13) | 1650–1700 (26) |
| Puaray Polychrome | 1675–1700 | (8) | (9) |
| Aucilla Polychrome | 1650–1700 | (1) | (1) |
| Castillo Polychrome | 1680–1710 | 1680–1850 | 1680–1700 (13) |
| Aranama Polychrome | 1750–1800 | 1750–1800 | (1) |
| Huejotzingo Blue-banded | 1700–1850 | 18th and 19th cents. | 1700+ |
| (Total Identified) | | (27) | (131) |

*Lister and Lister (1976:134) also list San Luis Polychrome from LA 326.

Goggin (1968:84) concluded that the site was occupied twice, with the primary occupation before the Pueblo Revolt of 1680 and with minor use in the 18th century. This reconstruction is supported by the predominance of Glaze F sherds among the Pueblo-made ceramics, with very few of post-Revolt matte paint sherds.

**Santiago South Survey, 2013–2015**

Other than items associated with Coronado, the Spanish-related artifacts found during the recent survey all date to the 17th century. All were found at the East Component Estancia, with the exception of two religious medallions found in the southwest part of the survey area, about 200 m from the estancia. Items found in the estancia area during the surface survey include 50 majolica fragments, 15 spindle whorls, nine olive jar fragments, four glass fragments (three flat glass fragments, apparently from mirrors, and one blue glass bead), four Chinese porcelain sherds, one piece of dark green Mexican glaze ware, and a specimen of brown-on-cream bizcocho pottery.

None of the materials described below are associated with Coronado's siege, but relate to the 17th century occupation of the East Component Estancia, and perhaps to the minor reoccupation of the location as *rancho* or *puesto* during the early 18th century. However, a few metal items associated with Coronado's siege were found on the east bench point.

## Majolica

Majolica sherds from the 2013–2015 survey are shown in Figures 6 and 7. In 2013, David Snow inspected majolica samples collected from the Estancia Santiago component and noted that over the years, more than 500 majolica fragments had been recovered from the Santiago site complex (End Note). This is, apparently, the largest collection of majolica fragments from a single 17th century Spanish estancia site in the Rio Grande area, and more than twice the number recovered from Las Majadas and the Santa Fe River Site (LA 16768) (Gabe 2019:266). Most of the majolica sherds recovered from the Estancia Santiago are listed in the Museum of New Mexico collections records, but the entire collection has never been subjected to formal analysis.


**Figure 6.** Majolica fragments from the 2013–2015 surface sample. Some sherds were not unidentified by type. Top row: Puebla Polychrome (M-38) and three foot rings. Second row, right: Abo Polychrome (M-24). Third row, second from left: San Luis Blue-on-white (M-7). Fourth row, left: Abo Polychrome rim sherd (M-35). Fourth row, third and fourth from left: Abo Polychrome (M-35), San Luis Blue-on-white (M-30). Fifth row, first and second from left: Abo Polychrome rim sherd (M-56), San Luis Blue-on-white (M-15). Fifth row, right: Puebla Blue-on-white (M-16).

**Figure 7.** Additional Majolica fragments from the 2013–2015 surface sample. Upper left: probable Abo Polychrome. Upper right: probable San Luis Blue-on-white. Lower left: green glaze. Lower right: probable Puebla Blue-on-white.

The inordinate quantities of majolica from Estancia Santiago—more than found at many mission sites—indicates that the owner of the estancia was affluent and well-connected to trade along the Camino Real. Many of the majolica types from the estancia first appeared in the late 17th century. Although the identifications and dates are sometimes tentative, as I noted above, the evidence suggests that the main occupation of Estancia Santiago dates to the middle to late 17th century.

### *Botijas*

Nine *botija* (olive jar) fragments, probably from five or six different vessels, were found at the East Component estancia (Figure 8). Most of these sherds came from the West Building provenience and from the west arroyo (from the midden at its northern head). One specimen (FS-1) was found in the east bench area.

The clustering of these specimens in the western part of the estancia component is curious, since the east slope midden exhibits the highest density and diversity of Spanish materials (but not a single *botija* sherd). However, 18 additional *botija* fragments mentioned in the 1934–1935 excavation notes are described as coming from both the east test trench and the west building area.


**Figure 8.** *Botija* fragments from the 2013–2015 surface sample.

A single unglazed *botija* sherd was also found on the surface of the camp (LA 54147) (Marshall 1989). No other Spanish ceramics were found at the camp during the excavations (Vierra 1989), and it is possible that the specimen found there derives from the estancia occupied about a century after Coronado's siege.

All of the *botija* specimens found during the recent survey are unglazed. Most are from large jars with wheel marks and smoothed, yellow-tinted exterior surfaces. The interior surfaces are brown to terracotta in color and scraped or eroded. One bulbous rim sherd (FS-1) was found south of the excavated borrow pit-midden. It is of the typical Middle Style (ca. 1580–1780) identified by Goggin (1960:265). This rim specimen exhibits a few marks from the tool used to thin the wall below the bulbous rim. A second specimen (FS 60) is from a somewhat smaller jar with a flared neck and with very yellow exterior surface. A third example, from a large jar (FS-48), shows light exterior polishing and very distinct wheel marks on the interior.

*Botija* fragments are often less frequent than majolica in New Mexico's Spanish Colonial period sites (Gabe 2019:266). *Botijas* appear to have been used to transport liquids (such as oils and wine) or contents packed in liquid (hence "olive jar"). Afterwards, the vessels were probably used as water jars. At the Isleta Mission, *botija* fragments first appear in the late 17$^{th}$ century deposits and include both unglazed specimens and ones with green-glazed interiors (Marshall 2015; Snow and Marshall 2022). Other examples have been found along the Camino Real. Twenty-three were found at Paraje de San Diego (Fournier 1996:37), while a cluster south of

Paraje Aleman included 50 sherds from two vessels, one glazed and one unglazed (Marshall 1991:48).

### Bizcocho Ware

A single matte paint, brown-on-cream sherd was found on the east bench slope at the estancia. This specimen is quite similar to two sherds found in the late 17th century deposits at Isleta Pueblo Mission (Snow and Marshall 2022). The sherds from both locations are tile-like (flat and thin). The Estancia Santiago specimen is 5 mm thick, while those from Isleta are 3 mm thick. The Santiago specimen has a reddish-brown matte paint on a highly polished cream-yellow slip. The paste is almost white and the temper is very fine quartz.

### Ceramic Spindle Whorls

Although ceramic spindle whorls were not imported, they were common at Spanish sites in 17th century New Mexico. Fifteen ceramic spindle whorls were found during the Santiago South survey (Figures 9 and 10). All are perforated circular worked sherds.


**Figure 9.** Spindle whorl fragments found at Estancia Santiago during the 2013–2015 survey. All were made from Rio Grande Glaze Ware sherds. The upper right specimen had a large hole and was not a spindle whorl.

**Figure 10.** Puebla Polychrome spindle whorl. Diameter: 4.3 cm. The sherd was found by a collector and was returned to the site during the 2013–2015 survey.

The records for the excavation (Hendron 1934–1935; Tichy 1939) mention the presence of many other ceramic spindle whorls, including 30 from the estancia area.

The whorls are associated with the 17th century Spanish component. Not a single whorl was found on the pueblo south middens or elsewhere in the 2013–2015 Santiago South survey area. This pattern parallels the concentration of olive jar fragments, majolica, porcelain, and glass at the estancia, to the exclusion of other parts of the site.

Most of the whorls found in the estancia component area were made from glazeware sherds. Based on distances from centers of holes to worked edges, the whorls ranged from 3.7 to 5.5 cm in diameter. None of the glazeware examples appears to have been selected for its painted decoration; most are from plain parts of vessels. However, a Puebla Polychrome sherd (Figure 13) was present in a box of artifacts returned to the site during the 2013 survey work, by an anonymous collector. While its exact provenience is unknown, most likely it came from the estancia.

Spindle whorls often occur at 17th century estancia sites in New Mexico, but are less common at 17th century pueblos. Caroline Gabe (2019:266) identified spindle whorls at all of the Spanish sites she studied; they were especially common as Las Majadas, Casa Quemada, Comanche Springs, and the Sanchez Site, suggesting that the textile production was important at those locations. In contrast, only two specimens were recovered from the Isleta Pueblo mission tests (Marshall 2015).

The 17th century spindle whorls were most likely used to spin wool, while those predating the arrival of the Spanish are thought to be associated with cotton textile production (Winthrop and Winthrop 1975). Prehistoric examples are not that common; in some cases, such as at Pottery Mound, they are entirely absent. At La Cieneguilla Pueblo (LA 16) area, spindle whorls occur only in the Boyd Site (16-1) estancia area, with none documented for the prehistoric pueblo. For that matter, none were found at the 18th to early 19th century Hispanic village (Roney and Marshall 2019).

The 2013–2015 survey also found a fragment of a circular glazeware worked sherd with a large central hole (Figure 9, top right). The complete worked sherd was 4.0 cm in diameter, with a central hole 2.0 cm in diameter. While it is included with the spindle whorls, its function is unknown.

## Chinese Porcelain

Four fragments of Chinese porcelain were found during the 2013–2015 survey (Figure 11). All four were found at the estancia.


**Figure 11.** Chinese porcelain fragments. Upper left: M-66. Upper right: M-25. Lower left: M-17. Lower right: M-41.

Chinese porcelain vessels were exported to Mexico via the Philippines, arriving at San Blas and Acapulco between 1565 and 1815. They were then transported to Mexico City, and some were shipped north (at a roughly 300 percent markup) along the 1,600 mile (2600 km) long Camino Real de Tierra Adentro to New Mexico's 17th century settlements. When purchased in New Mexico, porcelain vessels were reported to be worth their weight in silver (C. Snow 1999:71). Other Chinese products that occasionally reached New Mexico included silk, ivory, and spices.

It is a most curious experience to find fragments of porcelain from the far side of the world in the dust between one's feet, at a 17th century settlement in a province once described by Diego De Vargas as "remote beyond compare." These vessels also appear in traces at other estancias, including Casa Quemada (1 specimen), the Signal Site, (2), Comanche Springs (5), and the Sanchez site (6) (Gabe 2019:266). Chinese porcelain has also been found at Quarai, Abo, the Palace of the Governors, and San Gabriel del Yunque, along the Camino Real at Paraje San Diego (Fournier1999:165), at the Isleta Pueblo mission (Marshall 2015), and elsewhere.

## Glass

Four glass artifacts were found at the estancia during the 2013–2015 survey, including three flat glass specimens and one amethyst colored faceted bead (Figure 12 and Table 11).

The flat glass specimens appear to be from mirrors. With the exception of glass beads sometimes found in large numbers with burials, glass artifacts are rare in Spanish Colonial period New Mexico sites. This is not surprising, given the material's fragility and the difficulties of transportation along the Camino Real. In the Isleta Pueblo mission test excavations (Marshall 2020), only four glass fragments (all from vials) were found, compared more than 4,000 ceramic artifacts.

Glass mirror fragments are extremely rare in 17th century New Mexico sites. Two small fragments of flat glass believed to be from mirrors were found in the excavations at San Gabriel del Yunque (Ellis 1989:75). Most of the glass artifacts from San Gabriel are beads (and most of those are blue); 23 other glass fragments include fragments of small bottles or vials and of a stemmed wine glass (Ellis 1989:57, 61, 67).

Glass items mentioned in the records of the Oñate Expedition to New Mexico include "Nineteen small Flemish mirrors, 82 ½ dozen glass earrings, and 900 glass beads called aquamarines (Hammond and Rey 1953:221). Elsewhere in the expedition records (Ulloa Inspection, p. 109), thousands of glass beads, hundreds of glass earrings, and a few glass buttons are listed (Levine 1999:8).


**Figure 12.** Glass artifacts from Estancia Santiago. Lower left: hexagonal faceted bead. The remaining items are flat glass mirror fragments.

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**Table 11. Glass Specimens.**

| Specimen No. and Type | Location | Comment |
|---|---|---|
| FS-18<br>Flat Glass | Edge of East Component East Bench, east of depression | Opalescent green-black with clear interior. Both surfaces highly polished and reflective but pitted. 4.0 cm across, 2.5 mm thick. |
| FS-19<br>Flat Glass | Slope of East Component East Bench | Pale white, highly pitted surface, like extremely old window glass. No evidence of surface coating, but this is probably a mirror fragment. 1.7 cm across, 2.0 mm thick. |
| FS-69<br>Flat Glass | East Component, East Slope. | Quite similar to FS-18, but thicker and with a greener tint. Surfaces are similar to those of FS-18. 2.0 cm across, 3.5mm thick. |
| FS-68<br>Purple Glass Bead | East Component, East Slope | Amethyst colored, faceted (hexagonal) cross section. Surface quite rough and pitted. 1.7 cm in diameter, 7 mm thick, hole about 3 mm. |

Even in the 18th century, glass mirror fragments are rarely found in New Mexico sites. However, four flat glass mirror specimens were reported from two early 18th century sites in the Dinetah (Hooded Fireplace and Tapacito Pueblitos) (Marshall 1995:33, 69). In 1776, the Dominguez Inspection of the New Mexico missions noted two medium-sized mirrors in the Chapel of Our Lady of Light in Santa Fe "for use of the priests when vesting." The mirrors were donated to the chapel by Doña Juana Roybal (Adams and Chavez 1954:35). Dominguez also noted a mirror on a table in the sacristy at San Ildefonso (Adams and Chavez 1954:67). Other glass items noted by Dominquez include rosary beads (Adams and Chavez 1954:67, 86), glass ornamentation on a tabernacle in the sacristy at Santa Cruz, and glass cruets (Adams and Chavez 1954:54, 94, 211).

## Religious Medallions

Two religious medallions were found in the Santiago South area, about 200 m southwest of the estancia. One is small copper alloy specimen with an octagonal frame. It depicts San Tomás de Vil Nova (Villanueva) on one side and San A(u)gustín on the other Tomás Villanueva was canonized in 1658 so the medal was not made before that year. The octagonal shape is typical of late 17th to Early 18th century medals.

The other medallion is a small oval with the Immaculate Conception on one face and the Madonna and Child on the other. It is similar to one identified by Deagan (2002:500) and appears to dates to about 1650. Thus, both medallions appear to be from the 17th century, consistent with the estimated occupation of the Estancia Santiago, and clearly not from the Coronado siege of early 1541 (Clay Mathers, personal communication, 2013 and 2014).

**End Note: Imported Colonial Ceramics, Estancia Santiago**
*David Snow, 2013*

A wide range of *majolicas*, as well as Chinese porcelains and olive jars, are reported from surface collections at and in the vicinity of the Santiago Spanish structure (Plowden 1958; Snow 1965).The *majolicas* identified in those reports number 532 sherds. Roughly half are identified as Puebla Blue-on-white; a little more than 5 percent are "unclassified" styles. Eight polychrome styles (199), dominated by Abo Polychrome (59), are 37 percent of the total number of decorated examples. Included in these earlier collections were "olive jar" (*botija*) and Chinese porcelain sherds (but are not counted in those lists).These early counts include collections made by this writer and the late E Boyd, now housed at the Museum of New Mexico. Additional surface collections of Spanish ceramics, including olive jar sherds, from the same area at the Spanish site were made by Howard Elam, but their current whereabouts are unknown. The Spanish structure is the "type site" for Puaray Polychrome *majolica*, named by Goggin from the former name of the nearby pueblo ruin.

I use the term *botija* rather than "olive jar" since a wide variety of foodstuffs and liquids was carried in these larger earthenware jars (e.g., Goggin 1960), including olives and olive oil, dried vegetables, wine, medicinal liquids, and honey. Bills of lading and manifests of the 16th and 17th centuries frequently refer to both *botijas* and *botijuelas* (the latter is a diminutive form), indicating differences in vessel sizes. The larger *botija* might have carried roughly one *arroba* (11.5 kg, 25 pounds).

Franciscan missions were not the only recipients—perhaps not even the primary ones—of ceramics imported from New Spain in the 17th century. The 1648 mission supply manifest listed only one box of *loza de puebla*, presumably for the 24 extant missions (but *loza* is not listed in the 1628 manifest of mission supplies). In fact, far fewer majolica sherds and types have been recovered from New Mexico's Franciscan missions than from contemporary residential sites (e.g., Snow 1965). The number of majolica sherds from Estancia Fagoaga alone (555) is far larger than for any single 17th century mission in New Mexico.

Merchants at Parral were a likely source of such "luxuries" for individuals and government officials in New Mexico. In 1662, for example, the Inquisition inventoried the effects of Doña Teresa de Aguilera y Rocha, wife of Governor López de Mendizábal, and listed "*una borcelana de China y un jarro chocolatero de la puebla ... Mas dos platones y sinco Platos de La puebla y una tasa de lo mismo ... Mas dos tinajas y menos de media de manteca*" ("a porcelain piece from China and a jar for making chocolate from Puebla ... Also, two platters and five plates from Puebla and a cup of the same ... Also, two large jars and less than a half of a third of lard"). Fournier (1996) provides a further sense of the nature of pottery imported to New Mexico in the 17th century.

Although no *majolica* was identified in the list of household equipment and the supplies manifest for Oñate's colonists, a small number of non-indigenous sherds were excavated by Florence Ellis at Yungue in 1962. These were submitted to E Boyd for identification. Most were of types previously unreported in New Mexico; they included three sherds of San Luis "Blue-on-cream" (Blue-on-white). Both olive jar and Chinese porcelains were present, as well as several varieties of unidentified Iberian and (apparently) Mexican ceramics.

Although Chinese porcelain has been recovered from New Mexico's 17th century missions, none are listed in the supplies furnished by the crown, perhaps, because of their high costs (e.g., Snow 1986).

In Florida and the adjacent Caribbean Islands, Goggin (1960) grouped San Luis Blue-on-white with his "early 17th century" styles, while Abo and Puebla Polychromes—both present at Estancia Santiago—were assigned to the "late 17th century" **(**such fine chronological distinctions are not yet apparent in New Mexico)**.** In an earlier overview (Snow 1965), I noted the tendency for majolica paste of 17th century specimens to be light-colored, while those of subsequent periods most frequently fired to darker, reddish hues. The sherds identified here all have the light-colored pastes typical of New Mexico's 17th century majolica.

In summary, the identified types are characteristic of 17th century colonial missions and residential sites (e.g., Snow 1965, 1973). The earlier collections from Estancia Fagoaga include Fig Springs Polychrome (12), Castillo Polychrome (13), Puebla Polychrome (33), Puaray Polychrome (31), Abo Polychrome (59), Aucilla Polychrome (1), San Luis Blue-on-white (3), and several unidentified or unclassified polychrome styles These are in addition to Puebla Blue-on-white and unclassified blue-on-white sherds, as well as *botija* and porcelain sherds.

## Chapter 5

## MISCELLANEOUS ITEMS

### Slag

A scatter of 74 pieces of slag was found just west of the west estancia arroyo, north and west of the estancia building, in a roughly 35 by 25 m area. A few additional fragments were found scattered along the north fence, east and north of the estancia building. The main scatter was on the level surface of a bench extending from the north fence to the south bench slope; these items were piece plotted using a GPS unit, and mapped by Clay Mathers. This area includes a curious rectangular patch of grass (measuring 3 by 4 m) with some charcoal nearby. The patch of grass may mark the location of a forge or other blacksmithing feature.

Most of the slag fragments measure 1 cm to 3 cm across, with the largest specimen measuring 10 cm across. They are lightweight, vesicular, and gray to green in color, with bubbles and frothy surfaces (Figure 13). None appears to contain much metal; most likely they are vitrified soil or adobe.

**Figure 13.** Examples of slag from the bench north and west of Estancia Santiago. The largest specimen illustrated measures 4 cm across.

Slag of this type was not found elsewhere in the Santiago South survey area. Slag has been identified at other estancia sites including Las Majadas, Comanche Springs, and LA 16768. The smelting of lead is suggested by slag and litharge at Las Majadas (Snow 1973).

## Minerals

Only a few mineral specimens were found in the Santiago South survey area. Those located in the East Component estancia area include a small ground travertine square, a polished, rather heavy, green pebble, and small fragment of highly polished green-black marble. The marble item may have been an import from Mexico. It appears that the inhabitants of Estancia Santiago had little interest in mining, unlike other locations where ore samples were found—at Comanche Springs, for example (Gabe 2019:279). In contrast, mineral specimens observed on the Pueblo middens included five pieces of copper ore or copper carbonate, two pieces of hematite, three bits of turquoise, a piece of onyx, and a selenite ornament.

# Chapter 6

# DISCUSSION

During the Santiago South survey completed in 2013–2015, almost all of the 17th century Spanish artifacts were found at or near the building we have linked to the Estancia Santiago. The only exceptions were two religious medallions. In contrast, the only Spanish artifacts found in the Santiago Pueblo south middens, or elsewhere in the survey area, were associated with Coronado's siege of the pueblo. However, an earlier study found 17th century Spanish artifacts in the southern part of Santiago Pueblo, given Tichy's statement that "the South House [and] the southern tips of the West and East (Pueblo) houses, were the last to be occupied, for it was in these three localities where most European influence was to be noted" (Tichy 1939:156). Tichy did not specify what she meant by "European influence," and the lack of provenience information in her report prevents us from deriving a separate interpretation of her remark.

Glaze F ceramics and fragments of majolica were found in the midden fill of the pueblo's only kiva, about 125 meters northwest of the estancia. In the stratigraphic column placed in the kiva fill, Glaze E and F rims were found in all levels. For the stratigraphic sample as a whole, the 101 rim sherds include two Glaze C sherds, 12 Glaze D sherds, 26 Glaze E sherds, and 61 Glaze F sherds. The presence of Glaze F sherds and Spanish artifacts in parts of the pueblo and in the kiva fill, and of Glaze F sherds in the south pueblo middens, indicates that part of the pueblo was occupied into the later 17th century, contemporaneous with Santiago Estancia. The frequency of Spanish artifacts in the kiva fill suggests the possibility of a second Spanish component in the northwest part of the pueblo. Barrett (2012:137) and others have proposed an end date of about 1630 for Santiago Pueblo, followed by construction of Estancia Santiago, but his proposal was not confirmed by the present study.

Because the building at Estancia Santiago had been razed, only a general idea of its design and construction can be provided. We know that there was a single building at this location, and that its walls were of adobe with cobble block foundations. Some of the walls in the building were massive, 1.0 m thick. The building, like those at many other estancias, had one large *sala* (all-purpose room) fronted by a long, wide gallery which was probably partly open to the outside. This may have been a *portal* used for cooking, summer sleeping, and storage, perhaps similar to the inset *portales* in many historic houses at Isleta Pueblo (Figure 14). These features had elevated floors to prevent flooding, with low, narrow foundations in front, as suggested by the Estancia Santiago structure. Doors entering the *sala* may have been single or double; at Estancia Santiago, the latter is suggested by the wide entryway.

The bin-like structure at the south end of Estancia Santiago's gallery may have been an outdoor oven-hearth. The adobe bins in the large *sala* probably were storage boxes (*trojas*) for grain and other foods. One room on the south side of the *sala* had an apparent rock and adobe platform extending through roughly half of the unit. The function of this platform is unknown.

**Figure 14.** Traditional Isleta Pueblo house with inset portal, ca. 1912. This building may have resembled the one at Estancia Santiago. Source: Jesse Nusbaum Collection. Courtesy Palace of the Governors Photo Archives (NMHM/DCA), Negative No. 042038.

Caroline Gabe (2019) has provided the most comprehensive comparative study of Rio Grande estancia structures and their contents. Pratt and Snow (1988) also provide a summary of Rio Grande estancias. At some of those locations, hearths were placed on platforms which may have been oven-like *brasero* features (Comanche Spring, Las Majadas, and Cochiti Springs). However, the platform at Estancia Santiago appears the have been too large for such use, and may have been a sleeping area that would have been finished with adobe and covered with robes. There was no clear evidence at Estancia Santiago for interior hearths or corner fireplaces (such as those at Comanche Springs, Casa Quemada, Las Majadas, and the Signal Site), but these may have been demolished or missed during the excavations. Various estancias also had hearths consisting of floor pits, and in two locations these were large subrectangular pits next to walls (Casa Quemada, Cochiti Springs, and the Signal Site). No evidence of selenite windows was found at Estancia Santiago, but such windows may have been present at the Sanchez Site, Comanche Springs, and elsewhere.

Rooms in estancia buildings tended to be larger, with more massive walls, than at contemporary Pueblo dwellings. Many 17th century estancias were simple lines of rooms, but some were L-shaped and partly enclosed a courtyard or *placita*. Estancia Acomilla had two facing L-shaped room blocks defining a *placita,* and one of the blocks had a small, fully enclosed, apparent atrium (Marshall and Walt 1984:199). If this latter area was roofed, it might have functioned as the *sala*. Some estancia buildings were more block-like (Casa Acequia); one had a walled courtyard and attached corrals (Metzler Ruin). Large corrals were present next to the estancia buildings at Las Majadas and the Sanchez Site.

Detached, circular, *torreón*-like structures were found at two locations near La Cienega (LA 16167 and 20000). Square rooms identified as small towers were reported for Metzler Ruin, but supporting evidence was not provided. Most circular tower-like structures identified in New Mexico are from the 18th century.

At least two estancias had large outlying rooms which may have been workshops, warehouses or perhaps chapels (Comanche Springs and Estancia Acomilla). At Ojo de la Cabra, on the plains between Isleta Pueblo and the Manzano Mountains, two estancia buildings were built 750 meters apart. Next to these estancias is what appears to be a contemporaneous *pueblito*—a structure occupied by Puebloans and perhaps associated with the estancias. One room at Metzler Ruin and another at Las Majadas had mealing bins similar to those found in Puebloan structures. Adobe intramural bins, similar to those found at Estancia Santiago, occurred at Cochiti Spring, Las Majadas, and probably elsewhere.

In New Mexico, 17th century estancias seemed to have ranged from single family operations with few servants (especially cattle and sheep ranches) to larger, extended-family operations. In some locations, such as the Bernalillo-Santiago-Kuaua area, and in the lower Santa Fe River and Cienega area, 17th century estancias are found in loose clusters. In the following century, such loose clusters of ranchos became the seeds of villages and other communities that still exist today (Snow 1979:47).

Trash deposits at some estancias, including Estancia Santiago, were extensive, indicating relatively long term occupation and high levels of activity (for example, LA 16768, The Sanchez Site, and Comanche Springs). At other locations, smaller artifact inventories suggest short-term use by fewer individuals (the Signal Site, Casa Acequia, and others). At two estancias, trash was dumped into apparent borrow pits (Santiago and Comanche Spring); possible similar trash-filled depressions were noted at both Ojo de la Cabra estancias. It is possible that some 17th century sites identified as small Pueblo habitations, because of apparent kiva depressions, are estancias with incompletely filled borrow pits.

The number of residents at Estancia Santiago is difficult to estimate, especially since rooms in the south part of Santiago Pueblo (those with Spanish artifacts) may have been used by servants and others. However, the rather substantial trash deposits at the site clearly indicates considerable activity. In Juan Esteban Fagoaga's 1662 testimony, he referred to his estancia settlement as a farm (consistent with recovery of a peach pit), but the operation most likely also included the raising of livestock (consistent with the goat or sheep bones found there).

Most of the ceramic vessels used by the Spanish at estancia sites was produced by Pueblo potters, sometimes in Spanish forms such as soup bowls, ringed-based vessels, candleholders, handled cups, and small, undecorated hemispherical bowls or cups such as those found at Estancia Santiago. At most estancias, small amounts of majolica, green glaze wares, and olive jars were found, along with rare examples of glass, Chinese porcelain, and Mexican Indian red and black burnished ware. Estancia Santiago stands out for its quantity of majolica and Spanish artifacts, suggesting that the owner, Juan Estéban Fagoaga, and his fellow residents were affluent. Perhaps they were traders, carrying goods to and from the markets in Northern Mexico. Whatever the case, they were no doubt affiliated with Sandia Mission, established about 1610. In 1662 Fagoaga—a Basque born about 1607 in the Valle de Ollarzu, Vizcaya, Spain—was interred at that mission (Chapter 1, End Note 1; Inquisition records. AGN, Inq. t. 593,ff. 313–320).

Why and exactly when Estancia Santiago was abandoned is unknown, but it is easy to suspect that the cause was the Pueblo Revolt of 1680. At that time all of New Mexico's Spanish settlements, including its estancias, were abandoned. Some, including Casa Quemada (2.5 km northeast of Estancia Santiago) and the Sanchez site (in La Cienega), were burned. Some rooms at the south end of Santiago Pueblo that were likely occupied at the same time as the estancia show signs of fire. (The kiva at Santiago Pueblo may have burned earlier, albeit only a few burned beams were found, and was filled with trash in the late 17$^{th}$ Century [Tichy 1939]). While there is no evidence that Estancia Santiago burned, it appears that the building was razed to the foundations—possibly to efface the Spanish occupation or to discourage the *Castellanos* from returning, possibly as a source of building materials by returning colonists in the early post-Revolt era.

The few scattered post-Revolt, matte paint sherds found at Estancia Santiago indicate that a temporary camp may have been established at the site in the early 1700s; if so, there is no clear evidence of new construction. The location is mentioned in the 1716 Phelix Martínez diary of the campaign to the Hopi Pueblos, in which he ordered an advanced party to wait for his arrival at the *Paraje* or *Puesto de Santiago* near Bernalillo (Bloom 1931:178; Snow 1976:164 ). Additional mention of Santiago appears in land grant documents related to the Santiago tract and other locations, as late as 1768 (see Snow 1976 for the place name history of Santiago and the greater Bernalillo area).

Artifact collections from Santiago Pueblo and Estancia Santiago, from the 1934–1935 excavations, are curated at the Museum of New Mexico and the Maxwell Museum of Anthropology. To date, no detailed study of these collections has been completed. An examination of the Spanish artifacts and other materials in the collections has considerable potential to yield additional information concerning Estancia Santiago and its relationship to the Tiwa community of Santiago Pueblo. The description and illustration of both Spanish and Tiwa Pueblo materials, especially those from the South Room Block area, would be of great value to the interpretation of the site and the art history of the early Colonial period in New Mexico. There are also unpublished field notes in the Museum of New Mexico archives concerning the excavation of LA 326, which by careful examination would yield information beyond that presented in the present report.

The ruins of Estancia Santiago and other, similar 17th century estancias in New Mexico that have survived the inroads of historical and modern development, and are a most valuable cultural resource, having the potential to reveal a great deal about early Colonial life. Each of these sites needs to be preserved for future study. Even the partly excavated ruin of Estancia Santiago has considerable untapped research potential. The extensive middens on the benches east and west of the structure apparently were never excavated and contain many thousands of artifacts. We have learned a great deal about Estancia Santiago by our intensive surface survey of the site, but so much more could be discovered by further midden testing and modern scientific study of the remaining cultural deposits, artifacts, and faunal and botanical remains.

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