

Final Report on the 2011-2017 Fieldwork at LA 20,000 La Cienega, New Mexico



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Abstract

This report details the work undertaken to explore the foundations of Spanish New Mexican society at LA 20,000. Originally identified in 1980 when the landowner trenched through the midden, the site is the most complex, best preserved 17th-century Spanish ranch thus far identified archaeologically. The site was the location of 11 years of fieldwork, first by the Museum of New Mexico, then by Mr. David H. Snow and Dr. Marianne Stoller. This site affords an unparalleled opportunity to explore 17th-century New Mexico and the foundations of Hispanic society. Our major research goals were: to investigate the construction and use of space at the ranch to understand the economic activities; to reconstruct foodways to understand the process of selecting and transforming plants and animals into meals as indicators of the interplay among ethnicity, social dynamics and environment; and to explore how the productive relationships structured and were structured by the environment.

With financial support from the National Science Foundation, expertise from the Andrew Fiske Memorial Center for Archaeological Research, and support from El Rancho de las Golondrinas, we first conducted a foundational project to revive the legacy collections from previous excavations, to assess the state of the extant collections and excavation notes, to create complete site maps, and to conduct a shallow geophysical survey. We describe these efforts. Our second project consisted of targeted excavation, artifact and sample collection, and analysis. The excavation strategy included a focus on anomalies identified in the geophysical survey, and the recovery of botanical and faunal remains. Much of our efforts were concentrated on investigating the architecture at the site and construction methods used in the structures. We have created a catalogue of the material culture and samples collected, and analysis of that material is ongoing. We present the results of the faunal, palynological, and other analyses. Finally, we offer a few suggestions for future work at the site and with the site's material.

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The work presented here was done by a number of Fiske Center staff, students from the University of Massachusetts Boston, University of California Santa Cruz, Columbia, and Harvard, and archaeologists from Albion Environmental.

The work could not have been done without the assistance of Fiske Center Senior staff. Dr. John Steinberg was a co-PI on the geophysical survey and GIS work undertaken under the first National Science Foundation grant. Drs. David Landon and Stephen Mrozowski were co-PIs for the second NSF grant. Their willingness to bring expertise in project management as well as analytical methods made this project possible.

A number of people were responsible for the field work. In 2012 Drs. Brian Damiata and John Steinberg, and University of Massachusetts Boston graduate students Kyle Edwards, and Caitlin Connick completed the geophysical survey and site collections assessment. Caitlin Connick and Stephanie Hallinan populated the artifact and sample database. Eric Johnson and John Steinberg created the complete georeferenced site map.

In 2015, UMB graduate students Adam Brinkman, Carolyn Horlacher, Richard Roy, and Stephanie Hallinan, and UMB graduate Daniel Mulcahy were responsible for the majority of field work. Drs. Landon and Mrozowski assisted with excavation and Ann Mrozowski helped with the field work.

In 2016, UMB graduate student Adam Brinkman served as teaching assistant. UMB graduate students Christina Spellman, Melanie Lerman, Madelaine Penney, and Ivana Ivanova, UMB graduate Chantelle Dashner-Griffiths, UMB visiting research Marianne Sallum, and UCSC graduate student Danielle Huerta were the main field crew. Harvard graduate students Wade Campbell and Eric Johnson helped with critical excavation and survey work. Dennis Piechota, Fiske Center senior staff member, took and analyzed micromorphology samples. Dr. Stephen Mrozowski also assisted with the excavations and project management

In 2017 Christina Spellman served as teaching assistant. UMB graduate students Ivana Ivanova, Ana Opishinski, Anya Gruber, Annie Greco, Adam Vitali, and Clint Lindsay, and UCSC graduate student Danielle Huerta undertook the majority of field work. We were lucky to have John Ellison from Albion and Evin Grody from Columbia University play key roles in excavations. Dennis Piechota and Steve Mrozowski, once again, helped with sample taking and field work.

Once excavations were complete Christina Spellman and Clint Lindsay were responsible for artifact cleaning and processing. Christina Spellman did a majority of the artifact analysis and ceramic cataloguing. Clint Lindsay and John Ellison analyzed the lithics. Maddie Penney, Allie Crowder, Jared Muehlbauer, and Katherine Albert drafted profiles, and Clint Lindsay kept the maps updated.

A number of graduate students have undertaken more extensive analysis of the collections using LA 20,000 materials for their MA theses. Ana Opishinski, under the direction of David Landon analyzed the fauna; Caitlin Connick and Adam Brinkman examined the ceramics from Snow and Stoller's excavations; Anya Gruber analyzed the pollen; and Stephanie Hallinan under the direction of Drs. Doug Bolender and John Steinberg analyzed Spanish site spatial data. Ivana Ivanova is the process of analyzing the recently collected botanical data, Danielle Huerta is using some of the ceramics for her PhD dissertation at UCSC, Emily Dawson is analyzing the phytoliths for her dissertation at the University of Texas, and Katherine Albert is investigating and providing reconstructions of the site's structures.

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CHAPTER 1

INTRODUCTION

This report details the work undertaken to explore the foundations of Spanish New Mexican society at LA 20,000. By conducting archaeological excavations and obtaining environmental samples from one of the most important early colonial Spanish sites in New Mexico, LA 20,000, we will be able to address significant questions about the Spanish colonization of this region. During the 17th century, colonists introduced new flora and fauna, which had an impact on the environment, but subsistence activities, such as crop and livestock production, were also shaped by local environmental constraints. Spanish households were typically pluralistic - composed of people from a variety of ethnic backgrounds, and they relied on indigenous Plains and Pueblo peoples for labor. Indigenous peoples often had well-developed understandings of environmental conditions and the distribution of resources, and this information would have been useful to colonizers. However, the political nature of intra-household interactions, especially in a colonial context, made the transmission of knowledge and the establishment of new practices complex. We know surprisingly little about the details of the daily practices that constituted household activities, but colonists' ranches, such as LA 20,000, were key arenas in which cross-cultural interactions and exchange of information took place because the performance of daily activities brought indigenous peoples and colonists together. Detailed archaeological investigation at LA 20,000 has the potential to provide information critical to the development of models of how such processes unfolded.

The household at LA 20,000 is an outstanding context for understanding the development of these interactions in the context of a rural ranch (Snow nd; Stoller and Snow nd). It is a single component 17th-century Spanish ranch located near a branch of the Camino Real, the main road from Mexico City to Santa Fe and further north (Stoller and Snow nd). It is also situated at the juncture of several Puebloan ethnic groups, Keresan, Tewa, and Galisteo Basin and near large Pueblo villages of San Marcos, Cieneguilla, and Cochiti (Anscheutz pers comm). While it is possibly the home of the *encomendero* for nearby Cieneguilla, *encomenderos* did not necessarily live close to their *encomiendas*, and despite efforts by David Snow and Marianne Stoller, the site's inhabitants have not been identified. LA 20,000 is the largest, most complex, and best-preserved 17th-century Spanish New Mexican ranch thus far archaeologically identified (Stoller and Snow nd).

With permission from El Rancho de las Golondrinas and support from the museum's director and staff along with funding from two grants from the National Science Foundation and the Fiske Center for Archaeological Research, we have been examining the site records and artifacts from previous excavations at LA 20,000 and we conducted excavations at LA 20,000 during the summer months from 2015 through 2017. This report details our project goals and achievements from our mapping, excavations, and analysis.

Site Location and Environmental Context

LA 20,000 is located approximately 12 miles south of Santa Fe, just off interstate 25 in the village of La Cienega (Figure 1). The site is within the Santa Fe River watershed just upstream from where La Cienega Creek joins the Santa Fe River. The site is located at about 1790 masl, and is oriented along the south slope of a hill, which rises 100 feet above the site.

Scree from the hill has covered the northwesternmost portion of the site to a depth of about 2 meters, but other areas of the site are much less deeply buried. Bed rock outcrops can be seen on the hill slope above the site. While the ranch complex does not have a view of the Cienega Creek, it is located just a few hundred meters from that water course, just above the floodplain (Figure 2). The structures primarily face south and have a view of rolling terrain toward Albuquerque.

The site was identified in 1980 and was the location of 11 seasons of archaeological excavations during the 1980s and 1990s, initially by the Museum of New Mexico in 1980 but primarily by Mr. David H. Snow and Dr. Marianne Stoller of Colorado College. Their foundational work located the structures that comprise this 17th-century ranch. These include a large house, a substantial barn, a corral, and midden deposits located south of the house. Immediately to the south of the ranch's corral and barn is an arroyo and a *tanque* that has impacted the integrity of the barn and corral. According to Dr. Stoller's notes, in the late 1980s or early 1990s, she and Snow began raising funds from private donors as well as the Hispanic Colonial Historical Foundation, the Spanish Colonial Art Society, and the New Mexico Community Foundation to purchase the land on which the site was located. The majority of the land surrounding the core ranch structures, the house, barn, and corral, was then donated to the El Rancho de las Golondrinas Charitable Trust, and it is now fenced, although the *torreon* and any fields or acequias which have not been identified lie outside the protected property line.



Figure 1. Location of LA 20,000 on the Tetilla Peak quad map.

Vegetation

Aerial views of the landscape show diverse vegetation zones that, like much of the Southwest, vary by altitude and access to moisture (Figure 2). The vegetation on the site inhabits a drier environment than in the nearby Cienega Creek floodplain. The arboreal vegetation associated with site is a mixture of bosque (willows, *Salix* sp., and Russian olive (*Elaeagnus angustifolia*)) along the stream and junipers (*Juniperus* sp.) on the hillslope above the site. There is a small piñon (*Pinus edulis*) at the north eastern edge, and a few junipers south across the arroyo. Several Siberian elms (*Ulmus pumila*), a 19th-century introduction, are located just south of the property line. The shrub stratum includes saltbush (*Atriplex* sp.) and rabbitbush (*Chrysothamnus* sp.), and wolfberry (*Lycium* sp.), particularly near the erosional edges along the eastern third of the site and the *tanque* edge. There is an occasional cholla (*Opuntia* sp.). Grasses predominate, especially at the far eastern edge of the site. *Kochia* dominates the mid-section of the site. Throughout, tickseed (*Lappula* sp.) and globe mallow (*Spharalcea* sp.) are common. Introduced puncture vine (*Tribulus terrestris*) is prevalent in the area that had been graded, especially under the Siberian elm. In 1995, the first author conducted a small vegetation transect in the area of midden and identified, in addition to the vegetation listed above, Brassicaceae (mustard family) and downy chess (a grass - *Bromus tectorum*) in high densities.



Figure 2. Kite photo of the top of the hill north of LA 20,000 showing the Cienega Creek Valley beyond.

Geology

The geology of the region influences the surface water and thus the vegetation. Underground water moves through gravels and sands westward from the mountain slopes and plains to the east. The basalt flows in the area act as a barrier to the downward migration of water, which is forced to the surface through seeps and springs (Sun and Baldwin 1958). These are common in the Cienega area. The area immediately around the site is covered with Ancha formation sand and gravel laid down during the Pliocene/Pleistocene. This formation is probably the source of coarse gravel materials from the hill above the site.

Hillsides in the surrounding the area are latitic to andesitic flows and breccias (Sun and Baldwin 1958). The basalt flows are visible to the north and west from the hilltop above the site. Down cutting through the Ancha formation sand and gravels has taken place and portions of the site are on red sand, especially to the east. Other portions of the site appear to be resting on a fine brown silt. Across the arroyo from the site at the far eastern edge, the geology is different. Clay beds are visible through the down cut across the arroyo (Figure 3). These are perhaps Cretaceous period red sandstone and mudstone or clay beds in the Galisteo formation.

There is a spring upslope about 400 meters to the east of the site. In the past, water from the spring flowed perennially by the site, but recently water from the spring remains on the surface just a few meters from the seep. Snow and Stoller noted a possible *torreon* to the south of the midden. If the *torreon* was occupied during the 17th century, water from the spring may have divided the site, separating the house, barn and corral from the *torreon*. This spring may have been the source of the domestic water for the LA 20,000 household along with water for agricultural purposes.

Various environmental and cultural changes have clearly impacted the site since its occupation in the 1600s. An aerial photograph (Figure 4), which perhaps dates to the 1980s, shows the area around the site was used as a trailer park and illustrates some of the impacts of that use. Burned trash from the trailer park was evident in several places and metal debris from the 20th-century occupation interfered with remote sensing equipment. Trash, such as car parts and carpet, was also deposited in the erosional surfaces at the eastern half of the site. The water table has been lowered and invasive species including Siberian elm, Russian olive and puncture vine can be found on or immediately adjacent to the site.

It is likely that in the 17th century, the stream from the spring would have been at about the same level as the site. Since then, there has been significant arroyo downcutting of the stream, and erosion from the hillslope has created channels that impact the site, especially on the east side. The site has also been impacted by a former landowner who bulldozed a tanque out of the sediments along the stream. Wiseman (1980 field notes) indicates that part of the site has been graded to level the land for the trailer park, and an undated black and white aerial photo shows that the site had a two track running across it (Figure 4).

The area around the site has increasing numbers of households, some of which are engaged in agriculture. The floodplain of the Cienega Creek is planted in hay, orchards, and vineyards. Some of that agricultural land can be seen in Figure 2. Also visible in Figure 2 is the bosque vegetation with invasive Russian olive along Cienega Creek.



Figure 3. View from the east edge of the site, southward toward the clay beds exposed by the arroyo downcutting.



Figure 4. Aerial photograph of the trailer park on the site. The photograph is oriented to the northeast; north is to the top left.

Previous Field Work

Originally identified in 1980 when the landowner trenched through the midden, the site was first recorded by Reggie Wiseman of the Museum of New Mexico. The location of the site at the base of a steep hill has resulted in substantial sedimentation that buried and preserved structures. In some cases the overburden is nearly 2 meters deep, but in others, the walls are visible on the surface. Limited excavation under the auspices of the Museum of New Mexico occurred in 1980 and 1982, but substantial investigation into the site began in 1987 when Dr. Marianne Stoller and Mr. David Snow undertook excavations as a field school from Colorado College. Excavations continued under their supervision until 1995. Snow and Stoller found evidence for several structures – a large house, a barn, a corral, and perhaps additional outbuildings (Figure 5; Snow nd). To assist their record keeping, they divided the site into areas called “units.” These units are not excavation units, but areas that roughly correspond to areas and structures on the site: Unit A covers all but the northeast quadrant of the house; Unit B, the barn; Unit C, the corral; Unit D, the area to the east of the corral; and Unit E covers the area north of the Golondrinas property line and includes the northeast corner of the house and some of the barn (Figure 5; Snow nd).

Snow and Stoller’s previous excavations focused on outlining the structures associated with the ranch (Figure 6). They identified a house with a possible earlier room on the exterior of the house’s southwest corner, an external adobe brick platform, and a bread oven (or *horno*) attached to the exterior of the house’s eastern wall; a barn with internal walls, cobblestone floor, and pillar supports; a sizable corral and possible herder’s quarters outside the eastern wall of the corral; and a possible *torreon* south of the house. Some of these architectural features are unusual for 17th-century ranches – the cobble surface, pillars, adobe platform, *torreon*, and *horno*, although surviving documentation of many features is slim. In addition to the architecture, these excavations have uncovered a midden nearly 1-m thick directly south of the house.

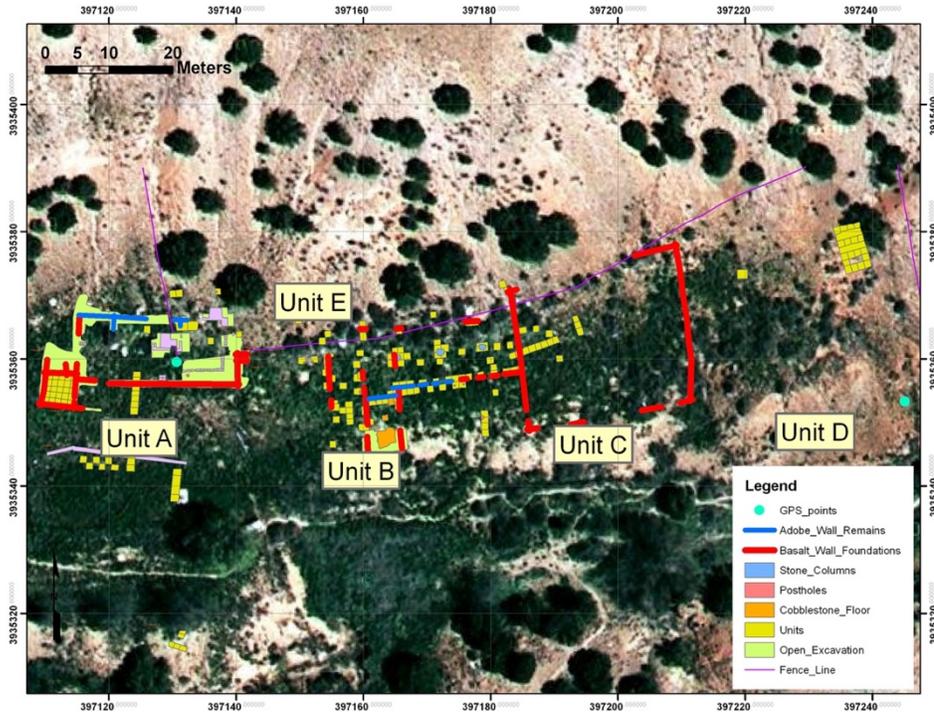


Figure 5. LA 20,000 unit designations given by Snow and Stoller. Unit A refers to the house and midden; Unit B, the barn; Unit C, the corral; Unit E refers to the area north of the property owned by Las Golondrinas. The *torreon* is located at the lower left corner of the figure and can be identified by the 5 yellow squares denoting excavation units.



Figure 6. Undated photographs of Snow and Stoller's excavations of the western wall of the house. Left: facing north, right facing south. The photo on the right shows the proximity of the trailer park and road to the structures on the site.

Ceramic types and dendrochronology of two beams recovered from the barn indicate the ranch was occupied from about 1629 to 1680 (Snow nd). These dates combined with the presence of charring in the structures suggest the site was burned during the Rebellion, and there is no evidence that the site was reoccupied after the 1692 Reconquest (Stoller and Snow nd), although the corrals may have been re-used. The catastrophic burning suggested that there might be well-preserved, in situ artifacts. Previous excavations recovered a large quantity of Pueblo ceramics, much smaller quantities of imported *majolicas*, olive jars, indigenous Mexican ceramics, and a very few specimens of porcelain. They found small quantities of metal and glass, a small lithic assemblage, numerous animal bones and they took botanical samples (Snow nd; Trigg 1999, 2005).

The large amount of information gathered by Snow and Stoller has great value for understanding the 17th-century colonization of New Mexico. However, only a limited amount of information about the site is accessible. Some groundbreaking analysis on ceramic wares (Thomas et al. 1992) has been undertaken. A short manuscript on the excavations was drafted by David Snow (Snow nd), and he has also written on the nature of the ceramics at LA 20,000. Both Snow and Stoller have given conference presentations. However, a comprehensive description of the site and artifacts recovered has not been undertaken. Moreover, the research potential of the site has not yet been tapped. At the urging of Snow, the first author re-engaged work at LA 20,000. With permission of El Rancho de las Golondrinas, we began a research program designed to incorporate the information already collected with targeted excavation, sample collection, and analysis.

Research Questions

To understand the foundations of Hispanic society in the American Southwest, we developed 3 main goals for our research program. Our major goals were: to investigate the construction and use of space at the ranch to understand the economic activities because these integrated indigenous peoples; to reconstruct foodways to understand the process of selecting and transforming plants and animals into meals as indicators of the interplay among ethnicity, social dynamics and environment; and to explore how the productive relationships structured and were structured by the environment. We gathered information by: 1) excavating portions of LA 20,000 to understand the architecture and spatial distribution of structures and artifacts; 2) collecting artifacts and materials such as botanicals and fauna to understand foodways; and 3) taking environmental samples in order to reconstruct landscape and vegetation changes. We also wanted to revive the legacy collections and notes left by Snow and Stoller as these form a significant portion of what we know about the stratigraphic relationships at the site and the material culture used by the 17th-century inhabitants.

CHAPTER 2

PREPARATORY WORK 2011-2013

Our first step in the research program was to revive the information collected by Snow and Stoller so that we could make the most of significant work that had already been done. We needed to know what artifact and sample collections existed, and we needed a detailed site map. In November 2011, the entire senior staff of Fiske Center for Archaeological Research at University of Massachusetts Boston made a one-week trip to examine LA 20,000 and to assess the notes and collections that were held at El Rancho de Las Golondrinas. During that trip, we mapped visible features, primarily basalt cobbles, on the surface of the site. We also did several preliminary geophysical surveys to test the application of those techniques to the site and the sediments. Finally, we re-opened one area excavated by Snow and Stoller to test our ability to find previously identified features and geo-reference them. Our brief trip made clear that the shallow geophysics had the potential for identifying previously undocumented features and structures. We were able to locate structural elements identified by Snow and Stoller (Figure 7), and we made a geo-referenced map of the visible features. Our assessment of the field notes and artifacts at Las Golondrinas showed that some artifact types were missing, especially noteworthy were the faunal remains. Some of these have subsequently been located by David Snow. Student field notes are generally available, although most from the earliest years of the project are missing. Extant PI field notes are very limited. Site forms are available from the first discovery of the site in 1980 and from later years (1994 and 1995) but are lacking from other field seasons. As a consequence, the student field notebooks constitute the major documentation of the site. Multiple versions of site maps existed, but none showed all of the excavation units. These issues are extremely common with legacy collections.

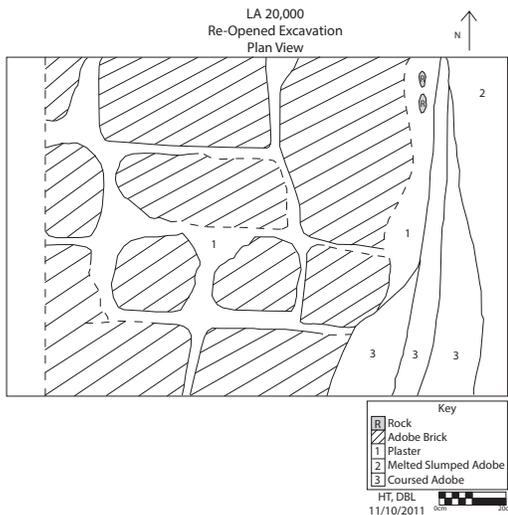


Figure 7. Re-excavation of adobe brick floor first identified by Snow and Stoller.

With this information in hand, we went to the National Science Foundation and requested funding: 1) to create a single, complete, georeferenced site map, 2) to identify the quantity and

distribution of artifacts already recovered, and 3) conduct archaeogeophysical survey of the site. Under NSF grant BCS #1221564, we assessed the quantity and distribution of the material recovered and accuracy of the spatial data generated during the 11 years of testing and field schools. We performed a geophysical survey of the site to assess the nature of unexcavated archaeological features and relocate the field school excavations. To create the most complete map possible, we read through the numerous student field notes, and combined sketch maps in those notes with the numerous versions of the site map. This work allowed us to identify the previous excavations, the major architectural elements revealed during those excavations, and geophysical anomalies.

All available site records from the 11 years of fieldwork have been organized and scanned to pdf files. These include 178 student and a few PI field notes (organized by year), various versions of the site map, field specimen sheets (also organized by year), inventory sheets, artifact and specialized analyses, and miscellaneous notes and correspondence. We have created a list of site records that we know are missing: certain student notebooks (29 of at least 200) and the 1994 field specimen sheets.

There was no single map with all of Snow and Stoller's excavated areas on it. An even more significant problem was that the most comprehensive maps outlined the large areas that had been excavated, but did not specify the proveniences within them. Maps with the greatest overview of excavations had extremely limited detail about the placement of excavation units. The detail in Unit A, the residential structure, was particularly poor. We had several issues in creating the master site map: 1). identifying all spaces that were excavated; 2.) precisely locating the excavated units because various versions of the maps located some units in different locations and many units were not placed on any overview map; and 3). identifying and creating geometries for each excavation unit so that we could link them to artifacts (which are identified by excavation unit).

To create the most accurate and complete site map, first we collated the various versions reconciling differences with the remote sensing and student notebooks when possible. To georeference the site map, we used GPS units to correlate known markers on the map, such as the site datum and survey points, rubber-sheeting to best fit the known mapping points. Also using GPS, we extensively mapped all visible surface features such as wall alignments, which added to the accuracy and specificity of the map. Finally we examined all 178 available field notebooks, and made digital copies of the sketch maps. These maps were graded for their quality (if they gave the orientation, a scale, identified the excavation unit, amount of detail) and utility depending on how much usable information they contained. Those with usable information were added to the master site map. We also used the textual notes in the notebooks to help name, locate and associate excavation units in space. The accurate and specific naming of proveniences was critical for locating the recovered artifacts in space since the field specimen sheets and inventory of artifacts are based on excavation units. Even though the quality of student notes varied tremendously, they were critical to the success of the mapping project. The composite map was created in ArcGIS to facilitate the spatial analysis of artifacts and produce an accurate site map.

Cataloguing

We created a digital database of the artifacts and samples recovered. Prior to this, there was only a paper inventory of artifacts and this was frequently missing critical information about

artifact provenience and could not be easily searched. By re-examining field specimen sheets, we were able to augment the existing incomplete inventory.

While we had previously created a basic database of material culture based on an inventory produced in 1995, the quality of data in the database was such that we could not link it to GIS or other analytical software. In many places, critical pieces of information were missing often because they were lacking, incorrect, or ambiguous in the original paper inventory. For example, provenience information was particularly spotty because frequently the inventory had a field specimen number and a site area, but a particular excavation unit was not mentioned. As provenience is particularly important for undertaking even the most rudimentary spatial analyses, we spent considerable time examining the data in the inventory, correcting inaccuracies, fixing ambiguities, and filling in missing information. We cross-referenced inventory numbers with the specimen numbers on the field specimen sheets to provide more complete provenience information. The field specimen sheets were also useful for identifying artifacts or samples that were not on the original inventory. We have created an Excel workbook with the first sheet for the master inventory and subsequent sheets for each material culture or sample type taken by Snow and Stoller.

We have created a relational database in Filemaker that links excavation provenience with various artifact types and samples, and uploaded the Excel workbooks into the Filemaker database. The ceramic, faunal, and floral assemblages are particularly important for the goals of the larger project. Our database (in Excel and FilemakerPro) is fully searchable, has information on nearly 30,000 artifacts including over 28,000 ceramics sherds, pieces of glass, and soil samples, and most importantly it can be linked to the detailed site map so that the distribution of artifacts can be analyzed using GIS.

Geophysical Survey

The geophysical survey was conducted by Drs. John Steinberg and Brian Damiata in the fall of 2012 (Figure 8). They used both conductivity meters (EM) and ground penetrating radar (GPR) at transect intervals of .25 m across the majority of the site within boundaries of the land owned by Las Golondrinas, except for the area along the arroyo at the south end of the site and channel cutting at the eastern half of the site. These areas were too unstable and eroded and we were concerned that additional trampling from the survey would negatively impact the site. The sediments exposed in these areas probably significantly pre-date the site. We obtained permission from the owner of the land immediately to the north of the site, and Steinberg and Damiata were able to survey a portion of this area. In general, survey passes were conducted north-south, but in the adjacent property, the survey was conducted east-west. Prior to the geophysical survey, brush was removed from site to ensure good ground contact for the GPR and placed in the erosional areas. Metal dating to the use of the site as a trailer park and trash dump interfered with the geophysics. When possible, we cleared the surface of modern metal. A full geophysical report is provided in Appendix A, but the following provides an overview.



Figure 8. Dr. Brian Damiata using GPR on a transect.

Geophysical Survey Results

The geophysical results suggest that significant features have not yet been excavated. These features may help refine our understanding of the architecture of the site or establish the function of portions of the site. The findings are detailed below, grouped by area (the midden, the domestic structure, the possible barn, and the corral). Geophysical anomalies are identified by A and a number (e.g., A1) while architectural and other features such as walls previously identified are labeled as Elements. See Figure 9 for the overview of anomalies and elements at LA 20,000 and Figure 10 for a GPR radargram.

Many of the excavated and previously identified features present as anomalies in both the EM and GPR. Few other anomalies present in both methods. Because the previous excavators left standing architecture intact and then backfilled or in a few cases (AY area of the house, and two possible units in Unit E north of the barn) did not backfill, the contrast between the standing excavated features and the backfilled soils and sediments may be stronger than if those standing features were not excavated. The major exception is A6, which is very distinct in the GPR (especially in the 30 cm bgs (below ground surface) slice) and shows up as a low in the IP2 (in phase) of the EM.

In general, the IP (in phase) of the EM is the most distinct method, and the IP3, the clearest application of the method. IP3 seems to be particularly sensitive to walls made with basalt, both buried and exposed on the surface. High readings (e.g., 1.4-1.6 ppt) correlate very well with previously excavated basalt or basalt footed walls. Strong reflectors from GPR slices ranging from 27-33 cm bgs also correlate with already excavated features particularly those containing basalt cobbles. Both the IP3 map and the GPR 30 cm bgs slice present a few of the adobe-only walls excavated. For the IP3, the adobe-only walls present as lows (0.8 ppt) while for the GPR, they present as weak reflectors.

Area 1 – Midden

One of the most distinct and dynamic anomalies (A1) runs to the north and east of the midden. A1 is most visible in IP3 as a distinct high (1.5 ppt) and appears to parallel the east-west

southernmost wall of Area A Feature 52 (Element 2) before curving to the south around the midden. A1 is so distinct that there is a possibility that it is a modern pipe; however, if it is not, but is instead part of the Spanish site, the exploration of this anomaly will be critical to understanding the overall layout of the ranch. However, A3, an anomaly to east of midden, may be related to A1, and A1, A2, A3 and A9 may all be related to the road, parking area and berm shown on the original map. There may be a hint of A1 in the Q3 map where A1 intercepts the pipe trench in test pit F. However, the records of the excavation of test pit F (or any of the nearby test pits/trench excavations) do not suggest anything but midden deposits.

Area 2 - Units A and E – Domestic Structure

The domestic structure made of adobe and basalt-footed adobe walls is the most complex area of the site, both in terms of its excavation and the features. From the perspective of the geophysics, the most distinct area is the adobe wall with basalt footings that surrounds Feature 52 (Elements 1, 2, 3, and 4). This is most distinct in IP3 as a high, IP 2 (also high), and IP 1 as a low. Feature 4 (Elements 13 and 14) is also quite distinct in the IP3 and the GPR, particularly the 30 cm bgs slice. The east wall of Feature 64 is also very distinct in both the IP and the GPR. The *horno* (bread oven - Feature 60 - Element 16) would have been more distinct if it were not on the modern fence line; nonetheless, it is visible in the Q, IP and GPR. Many of the northern excavated walls and floors are recorded as being only adobe, and they do not seem to present well in any of the geophysical methods or techniques.

The domestic structure was extensively excavated; therefore there are relatively few anomalies that were not uncovered. There are several exceptions. One may be A 23, a distinct high IP area just to the east of Feature 52. The IP here does suggest a substantial anomaly (A 23) running north-south, with the same orientation and layout as other walls in Feature 52. Another anomaly to the west of Features 53 and 50 is A17, a weak high in IP3. A third anomaly, with the same orientation as the walls of Feature 52, is A2, most distinct as a high in IP3 and a low in IP 1. A2 may also be related to A1 and the midden described above. Excavations at A2 have the potential to connect two complex sets of features, 52 and 64, into a coherent structure.

Area 3 - Unit B - Barn

There is an 8-m gap between the eastern most excavations in Area 2 and the western most excavations of Area 3. In this area are several back dirt piles. A 3-cm thick deposit of charred metal and other household debris, probably from the demolition of the trailer park, was partially removed before geophysical survey. Nonetheless, the geophysics confirms that this gap likely does not contain any substantial buried architecture or features.

According to Snow, much of southern portion of Area 3 had been cleared with heavy earth moving equipment excavating a containment pond; these activities exposed a number of stub ends of basalt footings. It is unknown how much of the surface was removed mechanically, but this removal might explain why Area 3 has some of the most distinct geophysical anomalies. Many of the other geophysical anomalies in Unit B have been partially excavated.

The geophysics suggests that there are three parallel north-south walls in the western part of Area 3. All of these walls were encountered in various excavations but not connected, and the geophysical readings, particularly, IP3 suggest that they are coherent. The space between the three walls is about the same (4.7m) and most of the excavations suggest that they are basalt cobble footings with adobe on top. The westernmost wall consists of Elements 41, 42, 43, and 44 and probably 40. The middle wall consists of Elements 45, 46, 50, 52 and 55. Anomalies A19,

A7, and A22 suggest that this center wall is a coherent structure. The west and center walls may be tied together by A7, best seen in the GPR (33 cm bgs slice). The geophysics, particularly IP3 suggest that Element 57 is not much larger than the area excavated. A5 suggests that Element 60 is substantially larger than the area excavated (Unit B TP 1). The easternmost wall of the three, defined by Elements 60 and 63 is less clear, but A4 suggests that it might be related to Element 65. A20 and A21 hint that there might be a fourth north-south running wall. A perpendicular wall defined by Elements 64, 70, 71, 72, 77, 79, 82, and 83 presents as a coherent medium low (1 ppt) against a lower background (0.8 ppt) in IP3. Six meters south of this east wall, A6 might be a parallel east-west running wall; this is best seen in the GPR (39 cm bgs slice) and as a low in IP3. A9, best seen in GPR slice 30 cm bgs may be a continuation of this structure. A6 and A9 could be a geological stratum eroding out of the impoundment walls. If they are archaeological features, they could be parts of a 42-m long wall. The western part of A6, A8, and A18 suggest a parallel north-south running wall 2m west of the western corral wall (Elements 87, 86, 85, 84, 95, 94, and 93). The strongest anomalies in Area 3 are the three excavated pillars or chimneys (Elements 67, 72, and 81). These elements are substantially higher than most other anomalies. There might be a fourth, unnamed pillar where Unit B Excavation 67 was performed, but the excavators did not note a pillar.

Area 4- Units C and D - Corral and eastern site

The geophysics confirms the original excavators' conclusions that there are no structures within the corral walls. The corral walls (Elements 87, 86, 85, 84, 95, 94, 93, 92, 91, 90, 8, and 88) are clearly visible in IP1, IP2 and especially IP3, as well as many of the GPR slices, particularly 30 and 33 cm bgs.

In a test pit to the east of the eastern corral wall, a basalt cobble wall foundation was identified (Element 96). The geophysics, particularly the IP3 and to a lesser extent GPR slice 33 bgs, suggest that this wall may be connected to the corral. Anomalies A10, A11, A12 A13, A14 A15, and A16 suggest a relatively unexplored structure. The basalt cobbles associated with these anomalies that are visible on the surface have been mapped, but the strength of the high IP3 anomalies suggest that there are additional subsurface cobbles that may form a structure that should be further investigated.

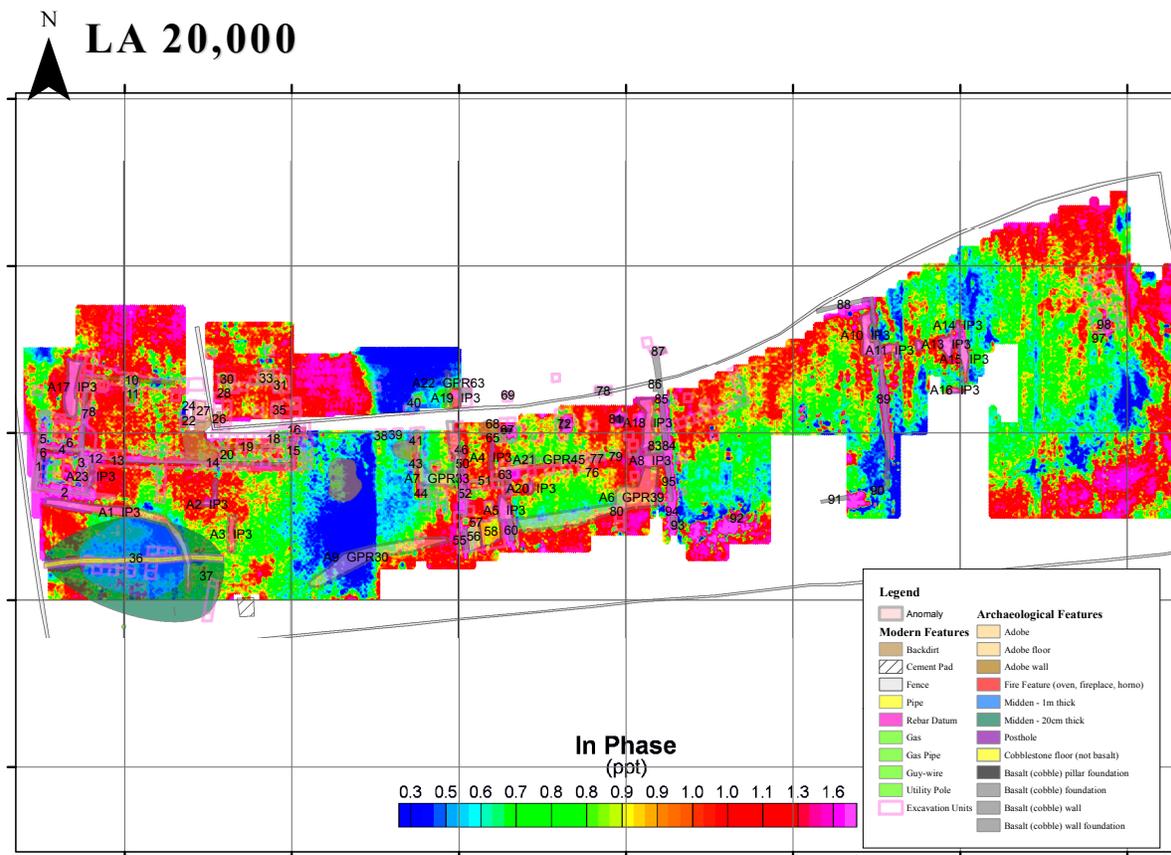


Figure 9. EM in phase with anomalies noted.

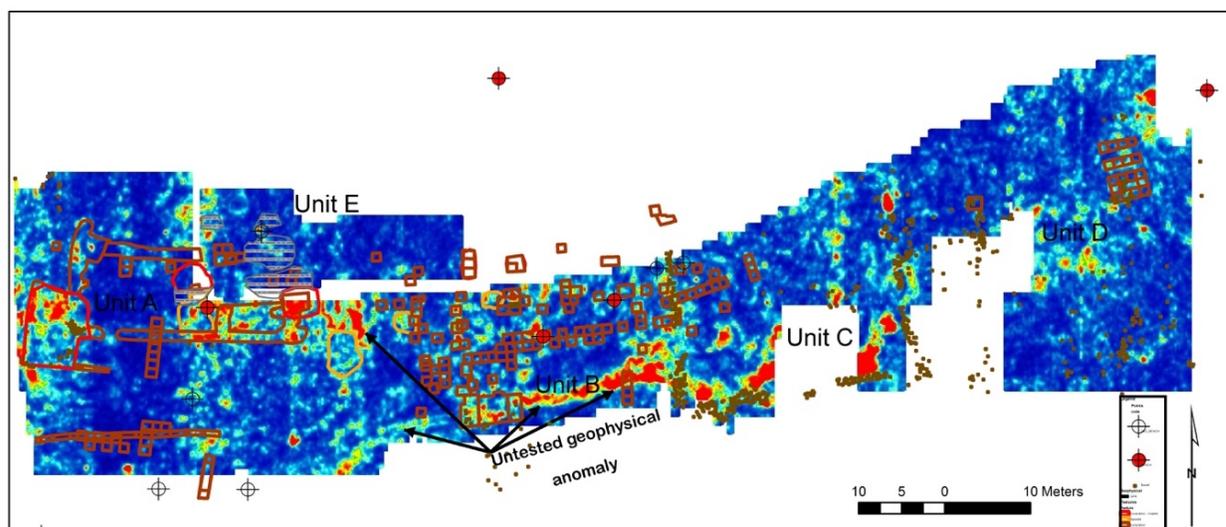


Figure 10. Ground penetrating radargram.

Mapping

Our mapping efforts allowed us to greatly refine the site map for LA 20,000. In particular we were able to map excavation units in the southern area of the house which were especially poorly defined. Figure 5 shows the level of detail of Snow and Stoller's most complete map and Figure 11 shows our refinements. To the best of our ability, each named excavation unit has a geometry in ArcGIS, but there are some excavation units that cannot be identified in space. See Appendix C for a series of maps with Snow and Stoller's excavation units labeled. There are three clusters of excavation units in Unit E for which we have relative positions among units, but we do not have precise absolute positions. Four feature excavations, Features 2, 3, 11, and 75, cannot and probably will never be located as the existing sketch maps are too vague. A number of surface collection areas also remain poorly defined. Finally, excavation units with Feature 50 cannot be refined further. Sadly, the majority of these poorly defined units refine the proveniences in the domestic structure, but we were able to add a great deal of detail to the map (Figure 11). As a result of the geophysical survey, we have identified 14 anomalies (Figure 11) that warrant investigation.

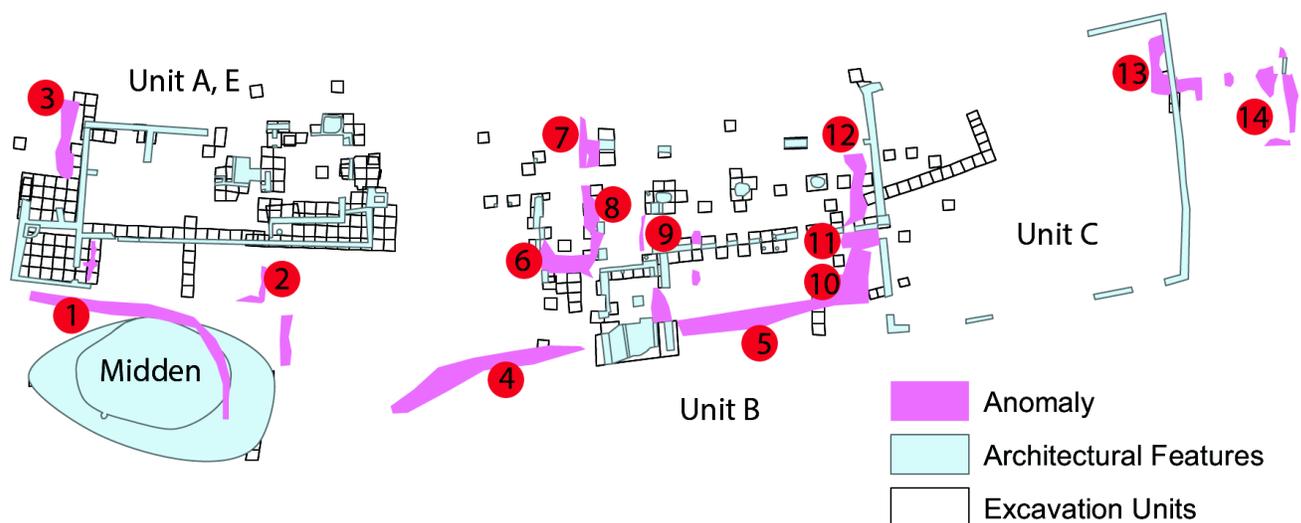


Figure 11. Combined geophysical surveys yielded the anomalies identified by Steinberg and Damiata. These are in pink and numbered. Architectural and midden elements discovered by Snow and Stoller are identified in blue.

Assessment of Features and Artifacts Collected by Snow and Stoller

Architecture – There are several locations described in the field notes that warranted additional testing because their functions are not well-understood. These include the bread oven, Feature 60, whose identification has been questioned by other archaeologists, the adobe platform on the north side of the house, and several features in Unit B, whose functions were alternatively described as a chimney and basalt cobbled foundation for pillars. The shallow geophysics

identified more than 20 anomalies several of which should be investigated as they may help us better understand the architecture of the site or uncover previously unknown structures.

Artifacts — The most important artifacts for the larger project goals of understanding ethnogenesis in New Mexico are the ceramics, faunal and floral materials. One goal of this project was to use the site maps and artifact inventories to assess the adequacy of these previously excavated collections to address questions of ethnogenesis.

Ceramics – In the database, there are nearly 3600 samples, which yield data for over 29,000 ceramic specimens. Roughly 90% of the samples, comprising 94% of the ceramics come from fairly well-provenienced samples, those that are clearly identified as belonging to one excavation unit or a very limited group of adjacent units. Many of the ceramics although not all have been previously identified to ceramic category (earthenware, porcelain, majolica) and culture of origin (Pueblo, Mexican, Spanish, Chinese) and counts were not provided for all samples. The ceramics assemblage, while robust, will need substantial hands-on analysis to refine the ceramics types and establish counts for all samples. It is clear, however, that additional excavation in selected portions of the domestic structure where the proveniencing is poor, such as the northern part of the domestic structure may help answer questions about special activity areas.

Faunal materials - Over 400 samples containing faunal materials were recovered during the 1980s-1990s excavations. Despite searching the storage locations multiple times over several years and contacting excavators and previous museum curators, much of the faunal materials could not be located. David Snow eventually found some but not all of the materials. A catalogue, created prior to the loss of the faunal collection, indicates substantial deposits of bones in several areas, the midden, Unit A and Unit B.

Floral remains – Floral remains consisted of flotation/soil samples and larger materials pulled from the screen. According to a note in the file, floral materials, especially soil samples, were not fully inventoried in 1995. We have attempted to remedy this problem by using the 11 years' worth of field specimen sheets to look for soil and flotation samples. These were only tentatively added to the inventory, because they may not still exist. We know that there are boxes of soil samples at the museum, but without inventorying the contents of the boxes, we cannot determine what samples are truly available. Despite these issues, it appears that there are adequate samples from the midden area, from the barn, and from the corral, but there is a distinct paucity of samples from the domestic structure. Additional sampling from these areas would assist us in understanding foodways.

Botanical materials pulled from the screens, though, are well sampled. Charred wood appears to provide a good sampling of the fuel and construction materials used, especially from Unit B, the possible barn. However, these screen samples will not give sufficient sampling for smaller botanical materials such as seeds and related plant parts, which are critical for understanding foodways.

Glass – The inventory has 27 samples containing glass with minimum of 54 pieces of glass. The vast majority of these are from well-provenienced units.

Metal and slag – 146 samples of metals with a minimum of 243 pieces were inventoried. The majority of samples come from well-provenienced units. One of the locations from which these samples came was alternatively identified as a chimney or cobble foundation base for columns in Unit B, the possible barn. Re-opening this unit may help us better understand these samples.

Lithics (chipped stone, groundstone, minerals) – 143 total samples and more than 184 pieces of chipped and other stone were recovered; of these, 80% are from well-provenienced samples. We have 31 total samples of groundstone; 24 samples are from well-provenienced samples. There are 176 samples (over 700 specimens) containing minerals (primarily selenite and mica). Only 24 samples are from poorly provenienced units. The majority of the lithics are associated with domestic structure and midden; those from the possible barn are limited and the areas around possible outbuildings are extremely limited.

Small finds – The inventory contains a small number of small finds, fewer than 10 items – buttons, beads, and jewelry– were recovered; 80% of these come from well-provenienced units.

Conclusions

With the geophysical survey, complete site map and assessment of existing collections in hand, we were able to outline a plan for future excavations and artifact analyses. In general, additional excavation targeted exploring the geophysical anomalies, collecting faunal remains, and obtaining artifacts and botanical materials would assist us in meeting the larger project goals of exploring ethnogenesis in New Mexico. These goals, outlined below, guided the excavation strategies for the 2015-2017 seasons.

Goal 1: Investigate the use of space to understand the economic strategies and social dynamics

To investigate the construction and use of space, we analyze the architecture at the site, focusing on the form and function of the various structures and subdivisions within them. Previous excavation has partially revealed four structures, house, possible barn, possible *torreon* (tower) and corral (Figure 5) and the geophysical survey has suggested a fifth. Some of these structures are fairly well understood, especially the corral portion of Unit C, but there are questions about the use of space in the other structures and areas around them. Additional excavation and re-excavation of previously opened areas are needed to explore the use of space and resolve issues with previous excavations. The excavation plan is designed to remedy these issues and provide us with spatial data and materials to address the use of space in various areas of the site.

Goal 2: Foodways

Our analysis of foodways focuses on the identification of the floral and faunal dietary components as well as cooking and serving implements to understand how meals were prepared. We have analyzed some artifacts and flotation samples from the midden, and these suggest the meals are complex mixture of Spanish and Pueblo foods and cooking techniques (Trigg 2004). Excavators identified an *horno* (bread oven), a Spanish introduction. Colonists came to New Mexico using cooking griddles, but theirs were metal or ceramic (Hammond and Rey 1953). At LA 20,000 sandstone *comal* fragments (the type used by Pueblo peoples) have been found. Only one *mano* (of Mexican style; Snow nd), and one *metate* have been recovered. Ceramic artifacts

include bowls, jars, and the introduced “soup plates,” all Pueblo made. Olive jar and Mexican majolica sherds have been found. Previous botanical analysis which focused on samples from the midden recovered maize, wheat, peaches, and peas as well as wild gathered plant foods.

Additional artifacts and flotation samples are needed to examine the distribution of possible food remains among the various structures, but the biggest gap in the knowledge of foodways was the faunal portion of the diet. Some models of ethnogenesis suggest that the meat portion of the diet would reflect men’s practices -- typically the colonizing Spaniards, but the plant remains and tools indicate a mix of Pueblo and Spanish ingredients and preparation methods. We want to know if the butchery and cooking of the faunal portion is similarly complex.

Goal 3: Environmental Reconstruction

The ecological relationships are examined using macrobotanical specimens and pollen to understand not only the crops planted, but also the impact colonists and their land use practices had on the local environment. Macrobotanical evidence indicates that crops, maize, wheat, peaches, and peas (Trigg 1999) were being consumed and may suggest that they were produced, but pollen samples may provide better indications of land use. While we will attempt to find crop pollen, it is difficult to recover many of these taxa. So we will also focus on proxy indicators of agricultural efforts, such as an increase in weedy, ruderal plants. Recent examination of a pollen core from 3 miles away at Las Golondrinas provides background information about vegetation from the 13th to 20th centuries (Edwards and Trigg 2016), but data about land use at LA 20,000 must come from closer to the site because pollen from many crops is not produced in large quantities and does not travel far and because we want to focus on the local pollen signature and local environmental impacts.

CHAPTER 3

ARCHAEOLOGICAL EXCAVATIONS 2015-2017

On the basis of the foundational work, we applied again to the National Science Foundation and secured a second grant (BCS #1460297). We used the information from the previous grant along with the research questions to guide the specific goals of the investigation and the excavation plan. This grant enabled us to conduct three seasons of excavation followed by artifact cleaning and inventory and some analysis.

Excavation Overview and Rationale

We placed excavation units (generally 2x2m rather than 1x1s to better expose features and their relationships), in and around the residential structure in Unit A, in and around the possible barn in Unit B, between the possible barn and house, and in the area containing rock alignments to the east of the corral. Given our objectives, it was tempting to excavate large areas to provide a comprehensive view of the site layout, but the importance of this site calls for a conservative plan of invasive testing, and we have attempted to limit the amount of new excavations at this stage. Clearly, an understanding of how space was used requires the analysis of the artifacts generated from these and other excavations, and these are being examined as part of our continuing work. We tested several anomalies and we also placed excavation units in the midden and at the edge of the site to recover botanical and faunal remains. Finally we re-opened previously excavated areas to document unusual features identified by Snow and Stoller and georeference them.

Unit A and E, the residential structure and midden

The broad outlines of the structure in Unit A were fairly well defined by Snow and Stoller. They interpret this to be a residential structure with a separate smaller, perhaps earlier room at the southwest corner of the main house. Snow and Stoller indicate that this room has a corner fireplace typical of Spanish New Mexican houses, and there is a feature identified as a bread oven external to the east side of the structure. The main house appears to be divided in some areas by internal walls, and the floor in some places is made of adobe bricks, but how this space is divided was not well understood. Excavators suggested that there was a kitchen in the southeast portion of the structure, but the evidence for this is unknown.

The northern part of the house was one area where provenience needed to be refined. The alignments of some walls in the northeast corner do not match descriptions, which may change our understanding of interior space. The field notebooks indicated architectural details (postholes, bricks) that are not present on any maps. Internal divisions within the western half of the house have not been explored, and those in the eastern portion of the house are not well understood because Snow and Stoller did not excavate to the floor in many instances. As a consequence, we do not know the nature of artifacts and features associated with the living surface or the 17th-century construction methods.

The geophysical survey identified several areas around the outside of the house that warranted investigation (Figure 11). These included a long linear anomaly between the midden and the house (Anomaly 1), a potential corner of wall south of the house (Anomaly 2), and

anomaly along the northwest wall of the house (Anomaly 3). The nature of the long linear anomaly and its relationship to the domestic structure and to the midden was not known.

Unit B, barn

Barns are not common at 17th-century ranches and the suite of activities associated with this structure is not known. Although it is roughly the same size as the house, there are architectural differences between Units A, E and Unit B; Unit B has three stone column footings, river cobblestone surface, and there is no indication of an interior plaza. We re-opened some of these features to better document them. Provenience information about existing excavation units is well controlled, so previously excavated materials are useful for spatial analysis. A broad range of artifacts and samples were recovered and includes ceramics, slag, lithics, flotation samples and faunal materials.

The geophysical survey identified a number of anomalies that had the potential to refine what we know of the use of space in this structure. The long linear anomalies (4 and 5) south of the structure may be another structural wall or retaining wall. The relationship of this anomaly to the nearby structure is complex as it may intersect the structure at various intervals, and previous excavations indicate some linear feature although they do not describe it or explain what it is. The survey suggests some internal wall alignments that have not been previously recognized (Anomalies 6, 7, 8, 9). The nature of Anomalies 10, 11, and 12 have the potential to change what we know of the relationship between this structure and the corral, and therefore, our interpretation of what Unit B is. The geophysical survey suggested distinct walls for Unit B and the corral, something that was not recognized previously. Moreover, the survey suggested this structure and the corral were built on slightly different orientations.

Excavations here focus on the anomalies. One 2x2m excavation was placed over the anomaly to the southwest of the structure. As we do not understand the layout of this structure, we placed two 2x2m excavations in the anomalies that may be walls and wall junctures on the western side of the structure. Finally we place two 2x2m units along Anomalies 10, 11, and 12 to understand the relationship between the structure and the corral.

Use of space between Unit A and Unit B

The space between the possible barn and the house had not been tested for extramural features or activities areas. Although the geophysical survey did not identify anomalies, it may not have detected more ephemeral features, and there are areas between the structures that could not be tested due to a fence. Finally the recent dumping of construction debris may have masked features. We opened three 1x1m units (a smaller size to minimize the impact of purely exploratory excavations) and one 1 x 2 m unit to explore the area between the house and the barn.

Unit C, the corral and associated alignments

The physical space of the corral is well defined, and past excavations found a layer of manure, but few artifacts, consistent with its use for livestock. Both the archaeological testing and geophysical survey suggest that there are no internal divisions within the corral. While the function of the corral is clear, the nature of the rock alignments to the east were not understood and relationship to the corral was not clear. Geophysical signatures suggested walls of a structure, but its function was wholly unknown (Anomalies 13 and 14). Previous excavators speculated that it might be herders' quarters although it may have housed other activities or

people of unknown ethnicities (Pueblo laborers, Plains slaves, members of the Spanish extended household). We placed two 2x2m excavation units to expose the anomalies and explore spaces between them.

Foodways and Environmental Reconstruction

We know from previous excavations that faunal remains are plentiful in the midden. We placed two 1x2m excavation units in the midden, specifically to obtain animal bones and botanical specimens for understanding animal husbandry, diet, and environmental change. Faunal materials were also recovered from the excavation units in and around the house and barn. All excavated faunal remains were investigated using standard methods to characterize the meat component of the diet: identify taxa and calculate NISP (number of individual specimens), MNI (minimum number of individuals), and biomass. We examined the bones for butchery and other modifications that may give us information about the types of tools (metal or stone) used, methods of dis-articulation and processing (which might suggest different practices), and possibly cooking techniques. The botanical part of the diet has been explored, but these primarily came from the midden and therefore provide an aggregate view of foodways. Additional flotation samples are being analyzed to provide spatial data.

We took pollen and other samples to reconstruct the past environment. There are several areas at or near the site that may yield soil samples with preserved pollen. One such area is at the south end of Unit B where previous excavations indicated the sediment was meadow-like and may contain well-preserved pollen. A small test pit (50 x 50 cm to minimize impact) was opened to expose the sediments into sterile soil southwest of Unit B for a column of pollen samples. This area of the site borders a small stream that probably was at the same level as the site in the 17th century. We also took pollen samples in locations across the site to understand agro-pastoral practices and activity areas.

Excavation Procedures

While using the term “Unit” to define a broad area of the site might lead to confusion with excavation units, we have followed Snow and Stoller’s convention, but our excavations are specifically identified as EUs (excavation units). Our EUs are named according to the year when excavation commenced followed by an alphabetic label (e.g., 2015-A, 2016-I).

The corners of excavations were shot in with a Topcon total station, and the excavation unit datum consisted of the EU’s highest corner. Excavation proceeded with shovels and trowels and occasionally mattocks when adobe melt made shoveling and troweling difficult. Excavation followed natural strata except when strata were more than 10 cm thick. In this case, strata were subdivided into 10 cm arbitrary levels. Occasionally sediments were excavated in thicker levels in roof fall and wall fall. All new excavation matrix was screen through 1/4 in mesh. Feature fill was screened through 1/8 in mesh. In areas where we removed backfill from previous excavation, every 4th bucket was screened through 1/4 in mesh.

Each unit-level and each feature was assigned a context number, and context/unit level forms were filled out for each level in each unit. Profiles were drawn for at least one wall of each excavation unit. Plan maps were drawn for features, structures or other findings. Photographs were taken at the close of each level. All artifacts were bagged with each type bagged separately (e.g., different bags for bones, ceramics, lithics, etc.), and each bag was assigned a unique number. Flotation, pollen, phytolith, and geomorphological samples were taken when we judged

that we might obtain good recovery. All units were backfilled; architectural features such as walls were covered in landscaping cloth, but modern coins were placed in the bottom of other units to denote the end of the disturbed sediments. A bag inventory was kept for each field season. All excavators kept field notebooks. Field notes, forms, and logs have been digitized. Context numbers were the basis of the Filemaker cataloguing system and all artifacts have been at least preliminarily examined and inventoried.

Excavation Season Overviews

Our excavation seasons lasted 4 to 5 weeks each summer in 2015, 2016, and 2017. In the first season, we tested anomalies 1, 3, 6, and 12 (Figure 11). We obtained pollen samples for the environmental reconstruction, and opened a unit in the midden to obtain sufficient faunal materials for analysis of animal husbandry. We re-opened the *horno* to document it, and we opened excavation units in the house, barn, and barn-corral transition. We wanted to understand the western portion of the house and the size of its rooms, re-locate key corners of the house. In both the house and barn, we wanted to understand the construction methods used in the creation of the structures.

During the second season (2016), we focused attention on the burn layers that were evident in the barn. We examined the interstitial spaces between the house and barn, re-opened to document areas in the house (the adobe platform) and barn (cobbled surface). We also finished exploring the barn-corral connections. Sampling emphasized soil geomorphological samples and manure. We explored anomaly #2 and followed the architecture identified there. We documented the size of the foundations on the western wall of the house.

By 2017, excavations had answered important questions regarding the construction of the house and barn, the size of the midden, and the nature of many geophysical anomalies. We also understood that the geophysical anomalies paralleling walls that had been previously excavated relate to the differences in soil compaction between intact deposits, hard walls and backfill. However, 2016 excavations raised additional questions about the nature of the area between the house and the new wall discovered in EU 2016-B. In the final season (2017), we focused on the house. Snow and Stoller had frequently opened units to tops of walls, but did not excavate to the floors. This was apparent in some areas of the house. We re-opened and continued to excavate areas within the southeastern half of the house. We also opened areas between the south wall of the house identified by Snow and Stoller and the new portion identified in 2016. This area was opened to help us understand the nature of this area, since the foundations were different. We tested the notion of herder's quarters located on the eastern edge of the corral, tested an anomaly at the south edge of the barn, and documented the pillar structures in the barn. Sample collection emphasized pollen sampling across the site – in the different structures, and phytoliths from the midden. Geomorphological samples emphasized the burned areas and the nature of sediments east of the corral.

Excavation Results

We opened or re-opened 32 excavation units, with one, EU 2017-C subdivided into 5 smaller excavation units (Figure 12, Table 1).

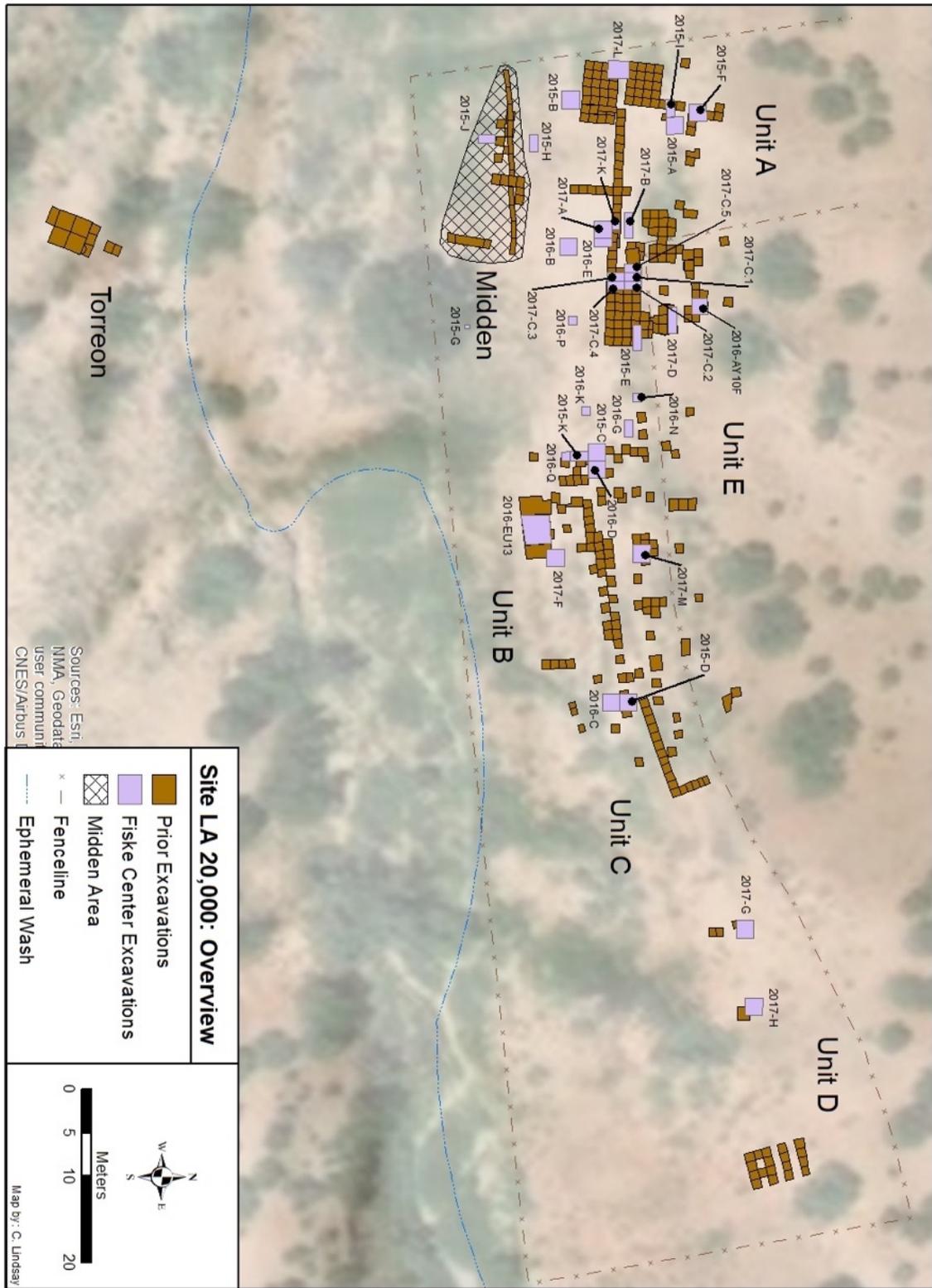


Figure 12. Excavation units opened during the 2015, 2016, and 2017 field seasons.

Table 1
Excavation Units 2015-2017

EU	Unit	Coordinates (E/N)	Opening Elevation (m)	Size (m)	Description
2015-A	A		1789.033	2x2	NW side of house
2015-B	A		1787.453	2x2	SW corner of smaller house
2015-C	B		1788.7	2x2	Barn – internal wall
2015-D *	B/C			2x2	Barn to corral transition
2015-E	A		1788.885	1x3	Feature 60, horno re-opening
2015-F	A		1788.964	2x2	NW corner of the house
2015-G	A		1787.502	.5x.5	For pollen profile
2015-H	A		1787.354	1x2	Midden
2015-I *	A		1788.559	1x2	West wall of house – re-opening
2015-J	A		1787.047	1x2	Midden
2015-K	B		1788.599	1x2	Barn – extension of 2015-C
2016-B	A		1788.188	2x2	To explore anomaly south of house
2016-C	B		1789.515	2x2	South of 2015-D, define wall connection
2016-D	B		1788.729	2x2	West of 2015-C, barn anomaly
2016-E	A		1788.429	1x2	EU due north of 2016-B
2016-G	B		1789.073	1x2	Between barn & house
2016-K	B		1788.518	1x1	Random unit between house and barn
2016-N	B		1788.83	1x1	Random unit between house and barn
2016-P	A/B		1788.347	1x1	Random unit between house and barn
2016-Q	B		1788.397	1x1	Looking for south end of barn wall
2016-EU 13	B			N/A	Cobble floor, previously excavated
AY10FAY9	A		1789.888	N/A	Adobe platform, previously excavated
2017-A	A		1788.416	1 x 2	Area between south house walls
2017-B	A		1788.593	1 x 3	Internal walls
2017-C	A		multiple	2 x 4 & 1 x 2	Re-open southern area of house – divided into five 1x2 units
2017-D	A		1789.437	1 x 3	Re-open to geo-reference walls
2017-F	B		1788.747	2 x 2	Test anomaly/barn & cobble surface
2017 G	D		1791.117	2 x 2	Herder's quarters
2017-H	D		1791.350	2 x 2	Herder's quarters
2017-K	A		1788.541	1 x 1	Extension of 2017A
2017-L	A		1787.736	2 x 2.5	Re-open Feature 52
2017-M	B		1789.447	2 x 2	Re-open B-6/ Pillar

* EUs 2015-D, and 2015-I were begun in 2015 and completed in 2016.

Northwest House

EU 2015-A

From excavations conducted by Snow, portions of the house structure were previously identified, including wall segments, prepared floor surfaces, and adobe brick alignments. Using that architectural information, we located EU 2015-A at western side of the house. In order to expose the internal structure and proportions of the residence, the 2 x 2 meter unit expanded east from Feature 51, the west wall of the house. The excavation unit was intended to intersect with the western wall of the house, but the georeferencing was off by about .25m, and the excavation unit was entirely within the walls of the house. EU 2015-I, a 1 x 2 meter unit opened to the west of 2015-A and discussed below, did intersect with the western wall.

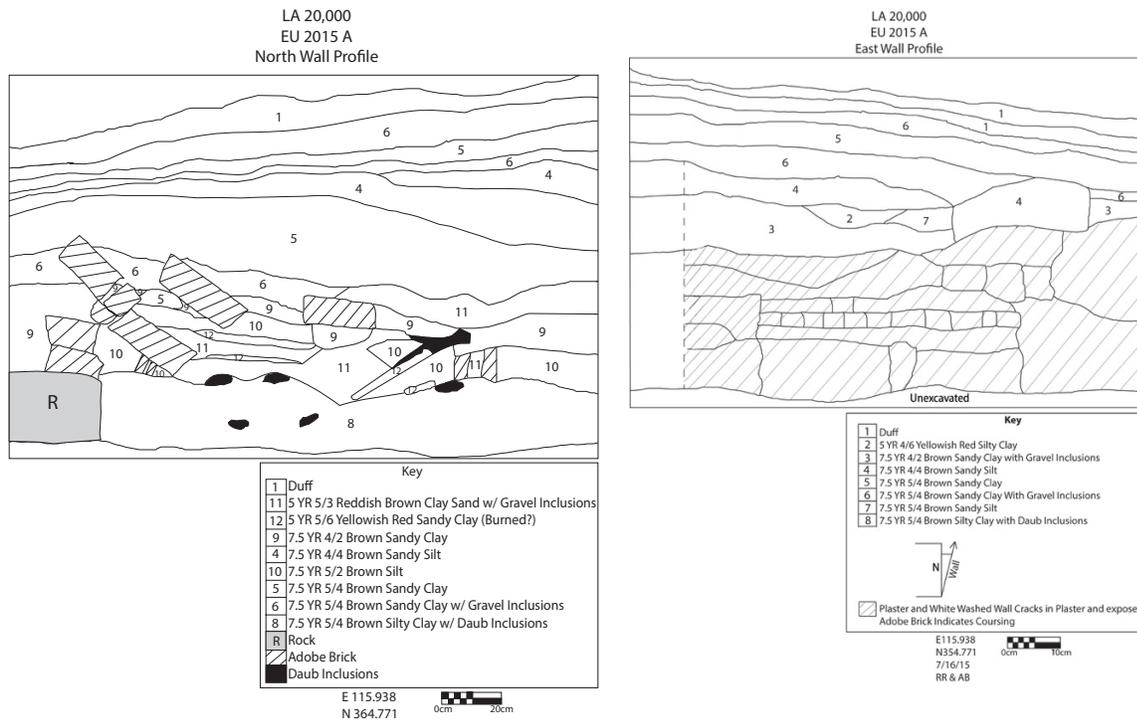


Figure 13. Profiles of 2015-A. Left: north wall profile shows wall fall layer over a layer of daub and possible roof fall. Right: The east profile shows a portion of the wall.



Figure 14. The wall identified in the eastern profile of 2015-A.

A shovel was used to remove the top layer of duff and overburden soils to a bottom depth ranging from 24 cmbd in the NE corner of the unit, to 45cmbd in the SW corner. In the north section of EU 2015-A, we encountered a few centimeters of backfill from previous excavations. Overall, this level consisted of sandy clay soils with a Munsell color of 2.5YR 5/4 (reddish brown). An abundance of pebbles and small cobbles were observed throughout from which we collected a minimal amount of artifacts including mortar fragments, a small amount of flaked stone, and ceramics. Subsequent levels were excavated using both shovel and trowels depending on soil composition and artifact densities.

We observed no significant change in soils contained in the second level. Level 3 remained similar in color and soil texture, however distinct areas of adobe melt and gravelly pebbles became apparent. The looser matrix is most likely an effect of downwash from the slope due north of EU 2015-A. Mortar was the only artifact type present in level 2 while level 3 contained a few possible pieces of flakes stone and ceramics. The end depth of level 3 was 41-45 cmbd in the southwest corner. As we continued excavating into level 4, the northern half of the unit became increasingly more defined from the soil composition in the southern portion as it contained fewer inclusions and more consistent in color throughout (5YR 4/4 reddish brown sandy clay) In contrast, a gravel lens and several cobbles comprised the southern half of the unit. To better understand the southern portion, level 5 was the removal of the remaining gravels which exposed a consistent layer of 5YR 5/6 yellowish red, sandy clay in the majority of the unit at a depth of approximately 50 cmbd. Level 7 was a layer of adobe melt with the same coloration and soil texture as level 4 (5YR 4/4), and contained a few pieces of faunal remains, charcoal, flaked stone, and ceramic artifacts. In the west portion of the unit, the soils were more compact

and formed an irregular color pattern of red edging gray creating an ephemeral line. We initially interpreted these harder soils to possibly indicate the top course of an adobe wall, or excessively sun baked soils. This level was mildly disturbed due to rodent activity. The end depth of level 7 was 59 cmbd.

Beneath the gravel layer in the SW corner was a concentration of mottled soils that extended eastward from the west sidewall approximately 80 cm, and northward 70 cm. We identified this deposit to be backfill. The backfill was excavated as a natural layer (level 6) which followed a slanted sidewall and tapered at the base with an end depth of 117 cmbd. Due to its irregular shape, and no obvious stratigraphy, we took a 70 cm square portion from the SW corner. In the sidewall of the exposed area we identified numerous adobe bricks mixed in layers of mortar. The disorganized position of these architectural materials suggests an adobe wall fall event. Directly, beneath the wall fall was an unidentified thin red layer deposited on top of loose silty sand. At a depth of about 130 cmbd, we encountered larger cobbles and additional adobe which we determined to be intact. We decided terminate this level at this *in situ* architectural deposit, and continue excavating the remainder of the unit in 10 cm arbitrary levels.

As we identified the extent of the adobe collapse, we decided to excavate the remainder of the unit in 20 cm arbitrary layers until more culturally relevant layers were exposed. At the base of the level 8, depth of 80 cmbd, we found a layer of wall fall or roof collapse. The upper portion of the level consisted mostly of larger adobe and mortar pieces. The artifact concentration increased as we continued to remove the wall fall, thus potentially getting closer to a living surface. The heavier concentration of adobe and mortar was removed from which we collected 2 samples of architectural debris (whitewash/plaster, and daub). Other artifacts collected from level 9 included selenite, ceramic, wood, faunal remains, and charcoal. At the base of the level (approximately 105 cmbd), we observed a gradual transition into a consistent lens of daub, followed by a lens of ashier soil. The daub was found throughout the unit beneath the layer of heavier materials. Much of the daub was intermixed with ashier soil which made it a challenge to identify the mortar from the daub. Within the daub/ash layer, were several ceramic sherds, and various other cultural materials (listed above). The presence of ash and charcoal, as well as burned adobe (darker red) suggests a fire may have been the cause of the roof collapsing.

The final levels of EU 2015-A consisted of significant roof and wall fall debris. In the western half of Level 10 we observed changes in soil coloration and texture. At this point, we decided to remove the level to within 3cm of the potential living surface, and screened the excavated material through a 1/8" mesh. Artifacts contained in level 10 include daub, burned adobe, selenite, wood, charcoal, faunal, flaked stone, metal, and ceramic materials. The end depth of level 10 was approximately 120 cmbd. The northern portion of the unit had a thin layer of darker ash and charcoal, but this did not continue in the south.

The final layer of roof collapse was excavated as level 11 and the floor was encountered at 125 cmbd. This leveled the unit to the previously excavated depth exposed when the backfill was removed. The floor did not appear to be formally prepared. It was simply a yellowish brown sandy loam with flecks of whitewash. Beneath this layer is a bright red, coarse silty sand. The floor was much thinner than the thicker greenish-yellow organic layer that characterized other floors in the house (See EU 2017-C).

There was one charcoal stain near the eastern wall of the excavation. We assigned this charcoal stain as Feature 2015-2. We thought this feature might be a posthole, but the stain was about 6 cm in diameter very shallow and quickly terminated on the red sandy soil that we believe is sterile subsoil in this area.

While preparing the east wall profile for final documentation, an intact interior wall of the residence was revealed (Figure 13). White wash and plaster were well preserved on the wall which seemed to not align to true north, but skewed slightly to an easterly bearing (Figure 14). The wall was covered in whitewash which was still present in some places. Adobe brick courses were visible in some places although we did not aggressively scrape the wall because it was not fully in EU 2015-A and to preserve it intact for future exploration. In order to confirm that we had excavated down to the living surface, we opened a small test unit in the NE corner, along the wall. Bright red sterile sand was encountered just beneath the wall which provided information about the construction process of the residential structure. From that stratigraphic evidence, we concluded that the wall and adobe mud was placed (perhaps to level the surface) onto the basal sandy surface of EU 2015-A.

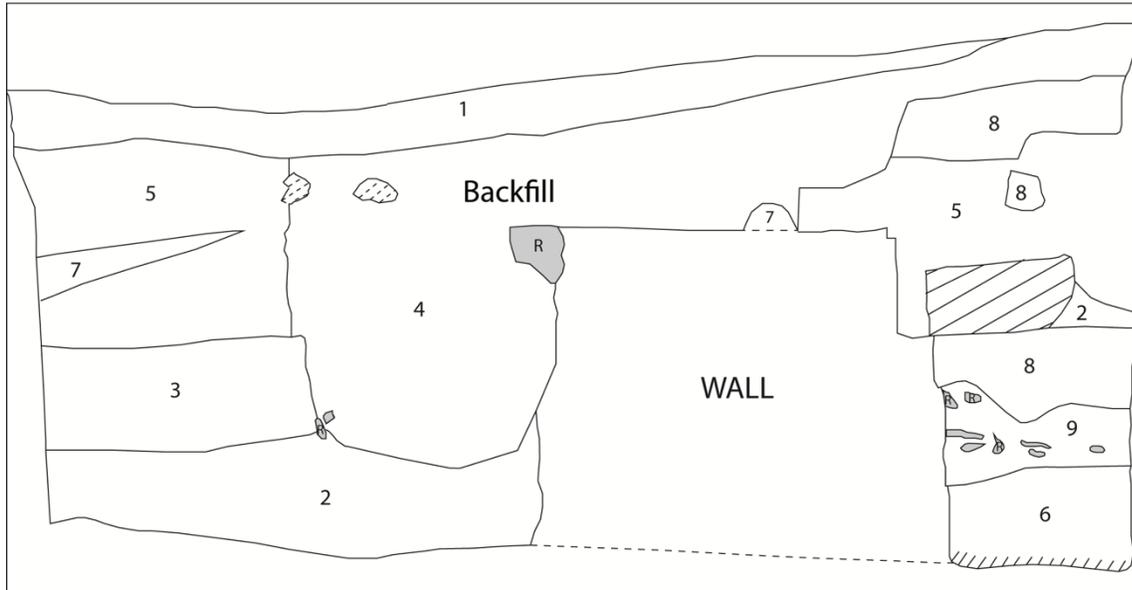
EU 2015-I

We opened EU 2015-I, a 1x2m unit, in order to explore the western most external wall (likely Feature 53) of the main house that was identified previously by Snow and Stoller's archaeological team. The east wall of EU 2015-I abuts the southern half of the west wall of EU 2015-A (Figure X). Without knowing the full extent of earlier excavations and exposure, we determined the approximate area from which we removed the backfill dirt (Stratum 4, Figure 15). Although the redeposited soils were slightly looser, it was difficult to distinguish fill from more recent adobe melt layers and slope wash (Stratum 1), especially in the western half of the unit. Every fourth shovel of the backfill was screened. We carefully removed the backfill soils exposing coarse sandy adobe melt (7.6YR 5/4) in the majority of the eastern half of the unit. The western portion of the unit was composed of hard-packed sandy silt (5YR 5/3) which we identified as intact adobe melt. It appeared to be well defined and contained several medium size rocks (approximately 10-20cm diameter).

After removing the adobe melt, we exposed adobe bricks with clear lines of mortar between them. Additional excavation revealed multiple courses of stone footings – one course of large basalt boulders, topped by 1 to 2 courses of smaller river cobbles. On top of that is a layer of adobe and adobe bricks. Both sides of the wall were excavated allowing us to understand inside and outside of the house (Figure 16). The interior fill consisted of adobe brick rubble, mortar and melt. On the eastern side of the wall, the interior of the house, was a very thin, very distinct line of red paint and whitewash or white paint over the top of the red. The inside floor is present with small flecks of plaster or whitewash at 97 cmbd. The basalt boulders are set on the dark brown sandy loam – the sterile surface that underlies most of the site. The exterior basal surface appears to be higher than the interior floor; the bottom of the boulders appears at about 85 cmbd.

LA 20,000
 EU 2015 I
 North Wall Profile

Line Level at Ground Surface in NE corner



Key

	Rodent Run
	Rock
	Adobe Brick
	Floor
	Adobe, Mortar, and Stone Wall
1	5 YR 3/3 Dark Reddish Brown Sandy Loam
2	5 YR 3/3 Dark Reddish Brown Sandy Loam with Small Cobble and Gravel Inclusions
3	5 YR 3/4 Dark Reddish Brown Sandy Loam
4	5 YR 3/4 Dark Reddish Brown Sandy Loam with Small Cobble and Gravel Inclusions
5	5 YR 4/4 Reddish Brown Clayey Loam
6	5 YR 4/6 Yellowish Red Sandy Loam
7	5 YR 5/6 Yellowish Red Sandy Loam
8	7.5 YR 4/3 Brown Sandy Loam
9	7.5 YR 4/4 Brown Sandy Loam with Gravel Inclusions

6/28/16
 M.S., W.C. 0cm 20cm

Figure 15. North wall profile of EU 2015-I showing the stone and adobe wall and interior and exterior surfaces.



Figure 16. Left: exterior view of wall comprising the western edge of the house. Close up of the top of the western wall of the house showing the large basalt boulder and smaller river cobble footings with adobe bricks and mortar on top. Right: whitewash puddling on the floor (just above the scale bar) in EU 2015-I.

EU 2015-F

We opened EU 2015-F (2x2m) which was located 1 meter due north from the northwest corner of EU 2015-A. Although we assumed that the placement of the EU was outside of the previously excavated NW corner of the residence (Feature 50), our goal was to capture the intersection of both the N-S, and E-W running walls. First, we removed all obvious backfill as level 1 which ended at a depth ranging from 19 cmbd (NW corner) to 34 cmbd (SW corner). Only a few centimeters down in level 1, we observed landscaping cloth/tarp material in the east wall profile. Patches of adobe melt and sections of slope wash were encountered alongside the disturbed soils of level 1. These varying layers made it difficult to remove all of the looser backfill soils. We decided to focus on the known elements of the house walls; therefore, the purpose of level 2 was to remove the remaining loose soils (7.5YR 5/4, brown silty clay) in order to clarify edges of the exposed wall.

After removing level 2, we were able to more accurately discern between the various adobe deposits, slope wash, and disturbed soils throughout EU 2015-F. A modern metal pipe was found in the north wall, and protruded into the unit approximately 20cm southward. The specific function of the pipe is unknown; however, the effects of water runoff and slope wash (coarse red sand) caused the majority of the western half of EU 2015-F to be disturbed. Rodent activity was also noted in an area of adobe and adobe melt adjacent to the disturbed mid-section of the unit going westward. On either side of disturbed center portion of the unit was intact adobe and adobe melt (running N-S). In the NE corner was a well-defined adobe wall with associated adobe melt. The wall was surrounded by less defined adobe melt (7.5YR 5/4) which contained a couple burnt adobe fragments that were reddish in color (5YR 5/4). The western corner (30 cm W-E/ 100cm N-S from west wall) was also composed of hard packed adobe (5YR 5/3) that we determined to be intact. Finally, six larger rocks, ranging from 10 to 30cm in diameter, were scattered in level 3 (20-30 cmbd). The rocks were not aligned in any obvious pattern that could be associated with construction activity. However, considering the amount of disturbance to the unit, the rocks could have functioned architecturally yet were displaced by water erosion events over the years. No artifacts, except adobe bricks, were observed from EU 2015-F. We were not able to

convincingly define the corner walls of the house in this area (Figure 17). Additional testing is required.

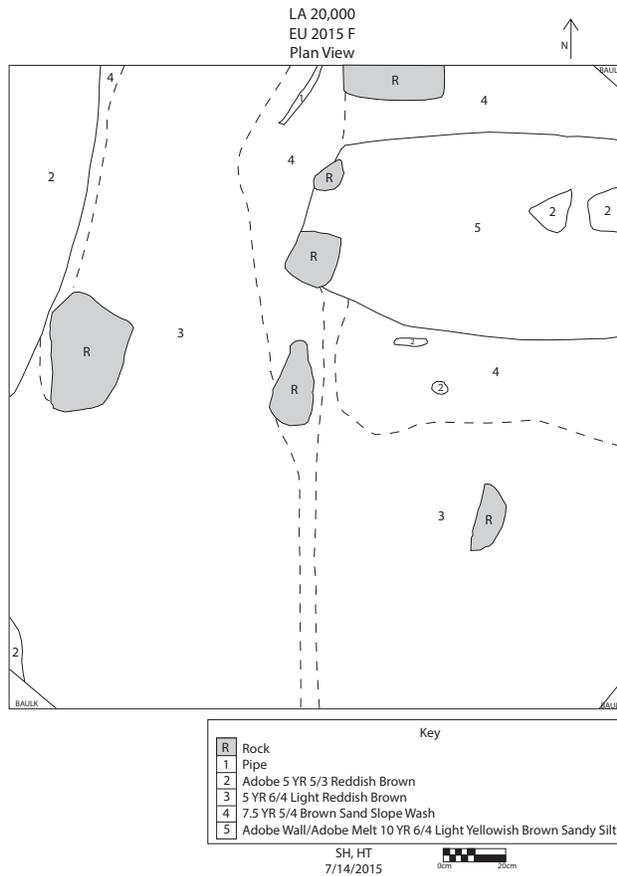


Figure 17. Plan of EU 2015-F.

Southwest House and Feature 52

EU 2015-B

This was a 2 x 2m excavation opened to explore Anomaly #1 and its relationship to Feature 52, which Snow and Stoller suggest is the foundation for a smaller, earlier house. The anomaly turned out to be a shallowly buried cable TV line. The excavations, however, allowed us to see the footing for the earlier house, identified by Snow and Stoller. These small, rounded river cobbles were laid in two courses. These cobbles were much smaller than the boulders used as footings elsewhere in the house. These footings are visible on the surface so any higher courses may have been removed in recent times. The cobbles are set in mortar and the footings are resting on a hard brown sandy silt with small pebble inclusions (Figure 18). We did not expose all of the wall since the footings are shallow, the cobbles are somewhat loose, and we did not want the wall to lose structural integrity. A small (50 x 50 cm) test sounding was opened in the northwest corner of the feature to allow us to inspect the deposits below the wall and ensure that there were no additional cultural deposits below the base of the footings.

LA 20,000
 EU 2015 B
 North & East Wall Profiles
 North Wall and STP Profile

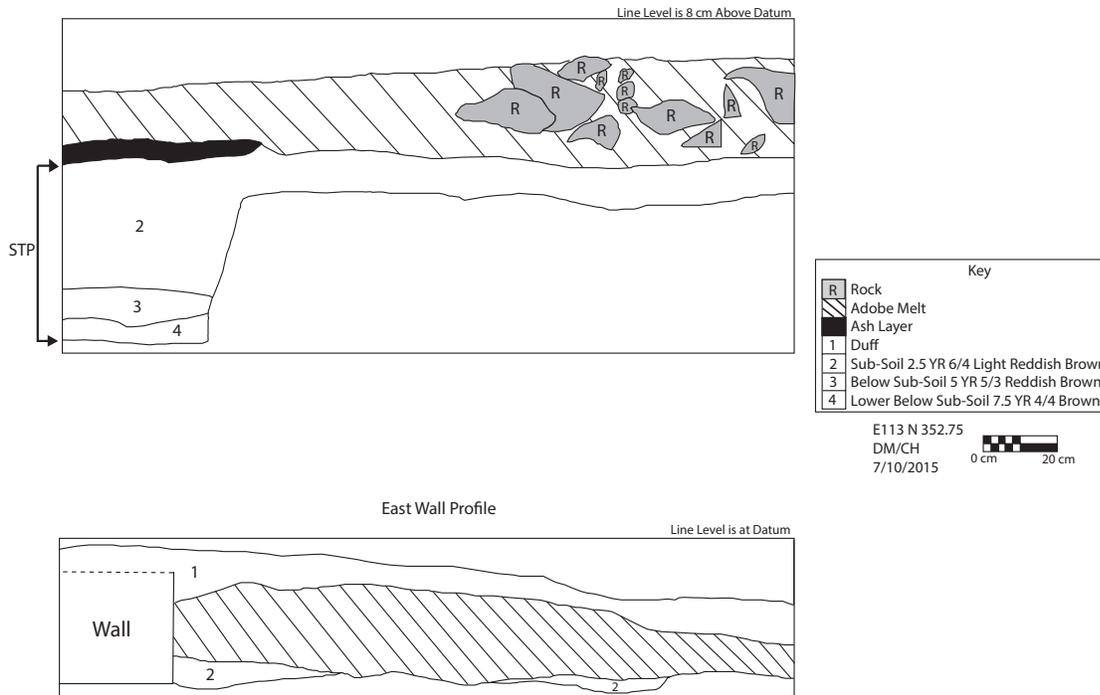


Figure 18. Profiles for EU2015-B.

EU 2017-L

This was a 2 m (east-west) x 2.5 m (north-south) excavation unit opened to document the corner fireplace identified by Snow and Stoller. On the 1990s map, this area had previously been identified as the walls comprising the corner of a room (Feature 52) with a fireplace in the northwest corner. When we opened this area, the archaeological deposits were not far beneath the current ground surface. We did not find a fireplace as described in the student notebooks. We did locate an L-shaped surface, one course thick, of cantaloupe-sized river cobbles. There appears to be mortar between some of the stones, and the surface slopes down toward the center of the photo. The cobbles are so close to the surface that additional cobbles may have been removed.



Figure 19. EU 2017-L showing the cobble foundation of Feature 52.

South - Center House

We placed several units to the south of the main house. First to test an anomaly, which turned out to be the corner of two walls, and then to explore the connections between these walls the house.

EU 2016-B

This is a 2 x 2m unit, opened to explore Anomaly #2 identified in the geophysical survey. This anomaly turned out to be the corner of a wall. The wall was composed of 3-4 courses of rounded river cobbles and with larger basalt boulders below the cobbles and set in adobe mortar. These walls enclose an area south of the main south wall of the house (Feature 4). The east-west running wall appears to be on the same orientation as the south wall of the earlier house (see Figure 20, 21), and is similar in the smaller rounded river cobble footings, but this wall is constructed with more courses. The northwest corner of this unit, which would have been an interior space bounded by the walls, was not excavated.

No adobe bricks or puddled adobe was found on the walls, but the wall is shallowly buried under the overburden and any bricks may have been robbed earlier or disturbed more recently. Slope wash and adobe melt from the house directly covered top of the wall footings.

Profile photographs and drawings make clear that a layer of overburden is at the same level as the top of the wall due perhaps to the grading that Wiseman mentioned in his site notes in 1980.

Evident in the north profile are several episodes of slope wash. This capping layer is 20-38 cm thick. To the exterior of the wall, and visible in both the north and west profiles, is a thick layer (20-30 cm) of heavy adobe melt, although discrete bricks were not identified in this layer. Visible in the north profile is an ash layer in the middle of the adobe melt, and throughout the unit (within the adobe melt) is a layer of red, gravelly slope wash. The large basalt cobbles are set on a layer of adobe. At the base of the wall and the cultural layers is another layer of red gravelly sand. The base of the wall is about 70 cm below the current ground surface. Below the red gravelly layer is a sterile brown. The adobe layer may exist outside of the wall, but it is ephemeral and uneven and may be more of an occupational surface rather than a deliberate layer of adobe for setting stones or prepared floor.

The tops of the postholes were evident at the same layer as the bottom of the cobbles in the walls. One and possibly two postholes were located on the exterior of the wall, perhaps supporting a shade or ramada. The most distinct posthole was identified in level 7, about 80 cmbd. The first posthole is about 16 cm in diameter and is located about 20 cm east from the wall and about 20 from the north profile. The second posthole is a bit more ephemeral and is about 12 cm in diameter, located about 40 cm from the south edge of the wall and about 10 cm from the west profile.

Ceramics, bones, and possibly chipped stone tools were recovered, particularly from the adobe melt layer.

This corner identifies walls that were not previously known, and adds significantly to the size of the house. EU 2016-E, described below, was opened to the north to verify that these newly identified walls intersected with the south wall of the house (Feature 4).



Figure 20. EU 2016-B. Left - photograph showing the corner of the walls and one of the postholes. Right – photograph showing the north profile. Note the layer of overburden covering a thick adobe melt layer.

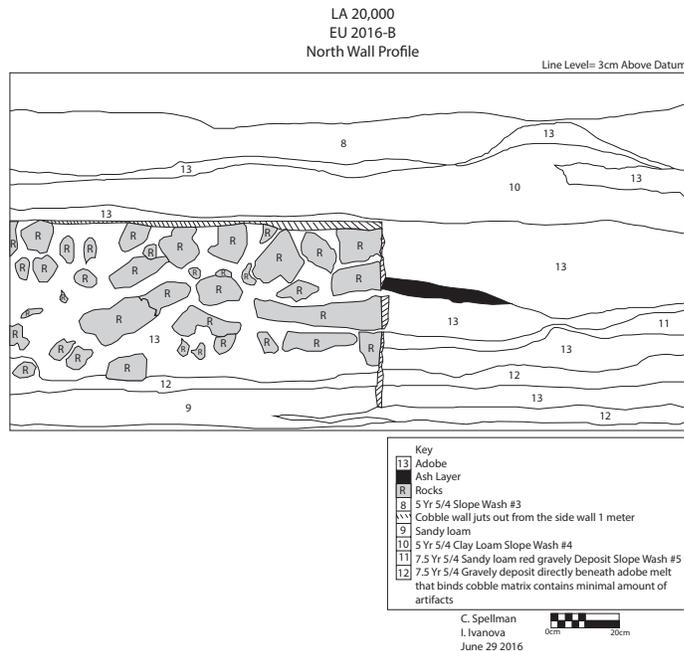


Figure 21. North profile of EU 2016-B showing corner of new wall segments which have increased the known footprint of the house.

EU 2016-E

This 1 x 2 m excavation unit was opened to determine if wall newly identified in 2016-B, located about 4 meters south, connects to Feature 4 (the south wall) of the house. The geophysical survey, which identified the anomaly, suggested that the new wall stopped short of the house. Our excavations in EU 2016-E revealed a north-south running wall in this unit. This wall consisted of cobbles and small boulders topped in places by adobe bricks and mortar, similar to that found in EU 2016-B, suggesting that the walls in these two units connect (Figure 22, 23).

The northern portion of this unit contained the main south wall of the house, which had been excavated and exposed by Snow and Stoller in the 1980s and 1990s. The top 30 cm in the previously excavated area and the top 10 cm elsewhere was backfill or loose duff. The tops of the adobe bricks were evident in level 2, about 30 cmb surface, along the east side of the excavation unit. Once the adobe bricks were well-defined, we concentrated excavations on the area to the west of the wall to expose the wall footings and the relationship between this new north-south running wall and Feature 4 (the main south wall of the house), and to understand the sediments the wall was built on. The tops of the footing stones appeared about 40 cm below surface. The footing stones for the north-south running wall intersect directly with the boulders comprising the south wall of the house (Feature 4). The north-south wall appears to join rather than rest below Feature 4 (as Feature 52 does directly west).

The matrix to the west of the wall consisted of adobe rubble and melt. Artifact density increased in level 6 (about 50-70 cmbd). Artifacts consisted of ceramics, selenite, and burnt adobe. By level 7, (73-90 cmbd) the matrix is a layer of soft dirt. At about 81 cm is an adobe-rich floor surface. Below this level is sterile matrix which is a reddish brown, sandy silt.

Large pieces of charcoal were embedded in the southeast corner of the unit, probably a post burnt in place. A pocket of charcoal and wood was also discovered adjacent to the cobble wall in the north suggesting another small post, but no posthole was found. A post hole was found in the southwest corner of the unit. The burnt post was shallow, just a few centimeters deep, but circular and discrete.

The adobe bricks and footing stones appear to be placed up against Feature 4 (main south wall), suggesting that Feature 4 was constructed first and this new wall complex was added after, but likely not much later. The fill contains wall fall and possibly roof fall. The soft brown silty layer below the wall/roof fall suggests sedimentation due to abandonment or the decay of organic material, over the top of an adobe rich floor.

These walls suggest an additional, previously identified walled area attached to the main south wall of the house. This walled area does not run the entire length of the house, stopping short of the house's eastern wall, but appears to be on the same orientation as the south wall of the "earlier house" located to the west.



Figure 22. The two walls (Feature 4 running east-west) and an additional wall which intersects with the main south wall of the house. Adobe was present on top of the new wall, but is missing in Feature 4. This is likely due to the fact that Feature 4 was previously excavated.

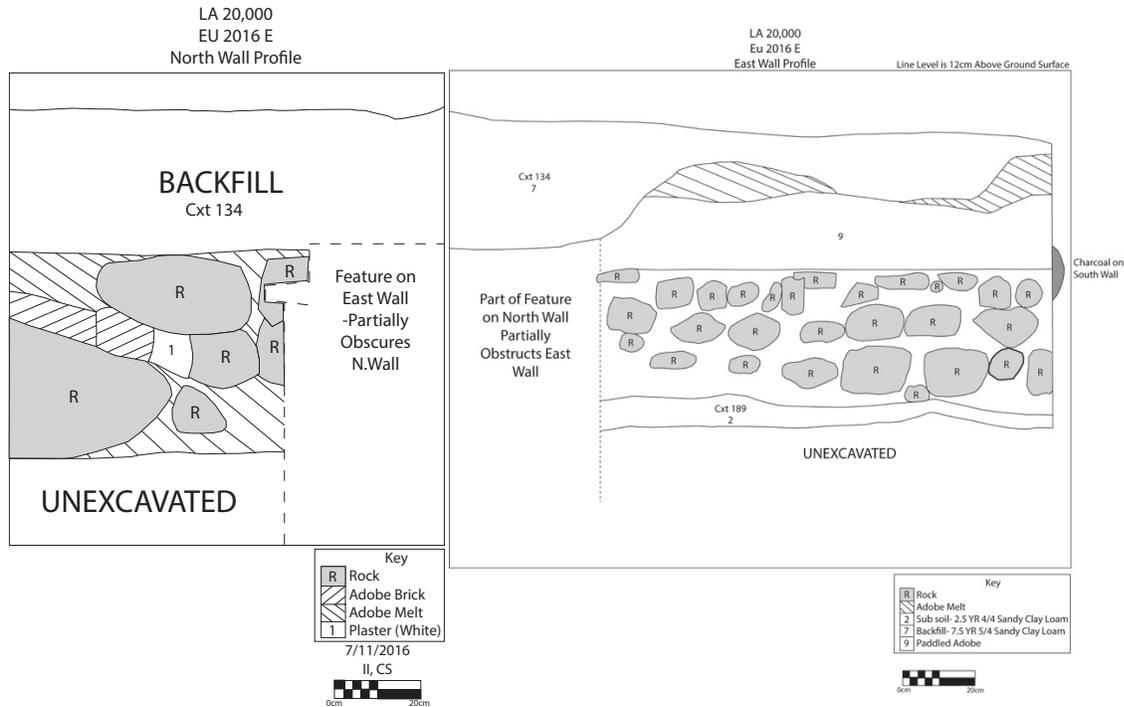


Figure 23. Left: North profile of EU 2016-E showing the construction of Feature 4 (the south wall of the house). Right: east profile showing the construction of the perpendicular north-south running wall.

EU 2017-B

EU 2017-B, a 1 x 3m unit, was opened to try to identify internal walls running north-south, which might sub-divide the house. A wall feature is present on some old excavation maps, but not others. This unit was only partially excavated, but the top of a north-south running adobe brick wall was identified (Figure 24). This wall may connect the southernmost house wall identified by Snow and Stoller (Feature 4) with an east-west running wall in their excavation units BX0A and BY0A.

The top of the adobes, in place, were located and we were therefore able to geo-reference the wall. We did not fully excavate this unit, in part because we achieved the goal of locating the wall and in part because the formic acid ants were particularly troublesome in this area. Just below the surface, we found adobes in place. The adobes appear to be different colors (red and gray), and there is an adobe brick fall in the fill which looks burnt (just north of the north arrow). It is possible that two rows of adobe bricks are present. One row is clear and there are 2 whole and 2 partial bricks were identified in the one-meter span opened in this unit. Another row of adobe bricks may be present to the west of these and continues into the west profile, so the western extent of this wall was not determined. Artifacts recovered from these deposits were primarily architectural and include adobe bricks mortar, plaster, along with a few ceramics, charcoal and egg shell fragments.



Figure 24. Top of an adobe brick wall running north-south in EU 2017-B. Wall fall is evident to the east (right) of the *in situ* bricks.

EU 2017-C

EU 2017-C was a complex of 5 excavation units located in an area previously excavated by Snow and Stoller. We initially opened these units to check the distance between the exterior wall (Feature 4) and an interior wall identified by Snow and Stoller and to understand the construction of the building's foundation. As we began to remove the backfill, we discovered that Snow and Stoller did not fully excavate this area, but seemed to stop above floors and at the tops of potential walls. At times, it was easy to determine where and why Snow and Stoller had stopped, as they often placed landscaping cloth over the walls and the backfill was rather loose. Occasionally, however, it was often unclear why the previous excavations ceased – whether because it just stopped for lack of time or because it reached a particular cultural deposit like floor, platform or wall. Although we had originally planned to open a single 1 x 2 m unit, we expanded this area to include five 1 x 2 meter units (Figure 25, 26) to explore not only the nature of the interior and exterior walls, but features and floors that were revealed during excavation. We originally opened what came to be called 2017-C.1. After uncovering the backfill from Snow and Stoller's excavations, we expanded eastward and placed another 1 x 2 m unit, 2017-C.2. After removing the backfill from this area we noted additional walls. We then expanded southward, opening 2 1x2m units, 2017-C.3 and 2017-C.4. We opened a final 1 x 2 m unit, 2017-C.5, to the west of 2017-C.1.

The architectural elements in the 2017-C complex included a north-south running wall, two east-west running walls, a threshold, postholes and a thermal feature. Feature 4, the main south wall of the house, was evident in 2017-C.3 and 2017-C.4. We identified an east-west wall running parallel to Feature 4. This was visible in the southern portion of 2017-C.1, C.2, and C.5, and divided this space, into a narrow outer room and inner rooms. The distance between the outer room defined by Feature 4 and the inner wall is 1.6 meters. A threshold between the outer room and one inner room was located in EU 2017-C.2. We also identified a north-south running wall at the far western edge of C.1 which intersected the interior east-west wall. This divided the inner space into two inner rooms. This wall did not extend into the 2017-C. 3 area. Postholes were identified in the corner of the room in C.1 and directly south in C.3.



Figure 25. Arrangement of 2017-C.1 through 2017-C.5 units and architectural features.



Figure 26. Aerial photo of a portion of EU 2017-C complex showing postholes, threshold, and walls.

The thermal feature may have been built during a remodeling episode as it sits above the floor, immediately adjacent to the top of the adobe brick wall in 2017-C.1. Or it may have been constructed on a rubble-filled platform. From the thermal feature, we recovered numerous ceramics and fauna, and macrobotanicals. The construction of the east-west wall is visible in C.5, and it consists of large rounded river cobbles with a layer of mortar and adobe on top (Figure 27). The cross wall, visible in C.1 has large cobbles or small boulders for footings for only a portion of its extent. The area under the thermal feature seems to lack those footings. Postholes were evident in the northwest portion of 2017-C.5., in C.1 and C.3. The posthole in 2017-C.1 was about 25 cm in diameter; the posthole in 2017-C.3 was 20 cm in diameter.

The floors and fill layers are different on each side of the interior east-west running wall. The floors in 2017-C.1 and C.2, in the inner room appear to be a higher level than the outer corridor, and perhaps represent a remodeling episode. A small portion of 2017-C.1 was previously excavated by Snow down to a greenish, looser layer that may be more organic and likely the floor. This section was expanded by further excavation throughout 2017-C.1 and C.2 to expose all of the floor. The fill above the floor in 2017-C.1 and C.2 are adobe brick fragments and slope wash or adobe melt (a sandy red fill). The floor in 2017-C.2 is about 87 cm below datum. The profiles (both north and east) show several layers of greenish-floor like sediment

with sandy red between (Figure 28, 29). Laminated floors are visible in the east profile on the north side of the north-south wall.

To the south of 2017- C.1 and C.2 are 2017-C.4 and C.3. They were opened to understand the nature and construction of the foundations (Feature 4) and the floors, and their relationship to rooms toward the interior of the house.

When the original backfill was removed, 2017-C.4 and C.3 contained two walls – one along the south wall of the unit (Feature 4) and an interior wall in the northern portion of the unit. Only a small portion of the interior wall was evident once we excavated the area more thoroughly. What excavation revealed was small stubs of the walls at each edge of the unit and in the middle, a threshold into the room to the north. Above the floor were lenses of charcoal and organics and below that were layers of sandy silt with gravel, but few artifacts. A prepared floor was not identified in this unit although the profiles clearly show organic rich layers, roughly at the same level as the tops of the footings for exterior walls (Figure 30).

The east profile of 2017-C.4 suggests a single floor layer, thus the stratigraphy is less complex than the rooms directly to the north. The floor slopes dramatically to the southwest corner of this unit, and in 2017-C.3, the floor intersects with the main south wall (Feature 4) of the house and seems to run almost level with the top surface of the boulder footings, and appears to be the same depth as the floor in EU 2017-K. The posthole in EU 2017-C.3 aligns with the posthole in EU 2017-C.1.

EU 2017-C.5 was composed of three main archaeological components: 1) a thermal feature, 2) a post hole, and 3) an adobe brick wall or platform. The stratigraphic placement of wall fall/fill debris below the hearth feature suggests a possible remodeling episode or the use of fill to elevate the surface to be constructed/ used upon. In the south of C.5 there were 2 rows of adobe bricks that aligned E-W and seemed to connect with bricks identified in 2017-C.1. Below the adobe bricks were about 4 courses of cobbles which appeared to alternate between medium sized basalt and small river cobbles. The matrix between the cobbles (especially the bottom courses) was a yellow fine sand with no inclusions. Adobe bricks in the north-south wall were placed upon large basalt rocks in the south, but not in the north half of the wall. It appeared that an adobe layer was deliberately placed in the north half to form a flattened surface on which to build the thermal feature. The concentration of large cobbles in the southern portion of the east wall may have the purpose of bearing a lot of weight – potentially a doorway or other entrance.

The thermal feature was a shallow basin-shaped, stone-lined feature. Larger cobbles were located around the feature, which was approximately 43 cm north south and 53 cm east-west. The fill of the thermal feature consisted of fairly large pieces of in situ firewood and fragments of animal bone. The sediment may have been either adobe or fire hardened.

A possible posthole is also located at about this level. When first encountered, this possible post hole was 26 x 32 cm, but narrows to 10-15 cm at the base. The fill consisted of charcoal. Associated material culture from this unit included several ceramics (including a handle), burnt animal bone, a peach pit, corn cob fragment and flaked stone.

The west wall profile of 2017-C.5 shows, that like other wall-floor interfaces, there is a substantial organic floor layer at the tops of the footings. Soils are powdery and there are plaster flecks, and selenite in this layer.



Figure 27. Detail of the south profile of 2017-C.5 showing the footings on top of the large brown layer. On top of the cobbles was a layer of mortar and then adobe.



Figure 28. EU 2017-C.2 east profile showing laminated floors.

LA 20,000
EU 2017 C.1 C.2 C.5
North Wall Profile
C Spellman, S Mrozowski
8/2/2017

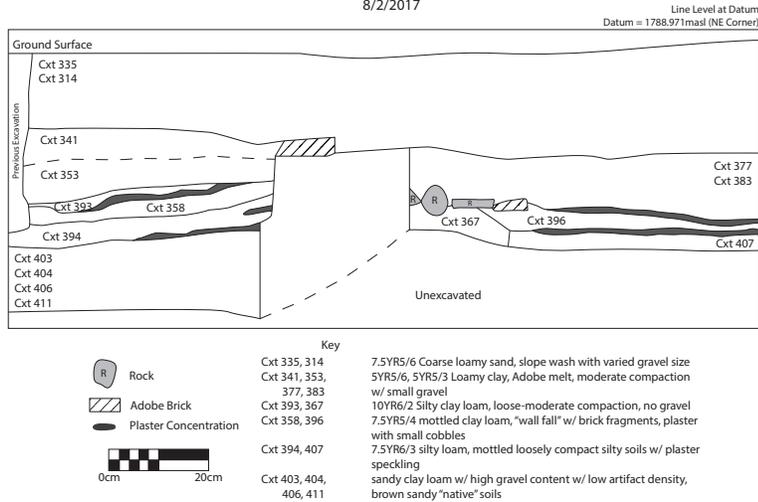


Figure 29. Profile of the north wall of the 2017-C complex.

LA20,000
Unit A
EU 2017 C.4
East Wall Profile
7/19/2017
AMG, AO, EG

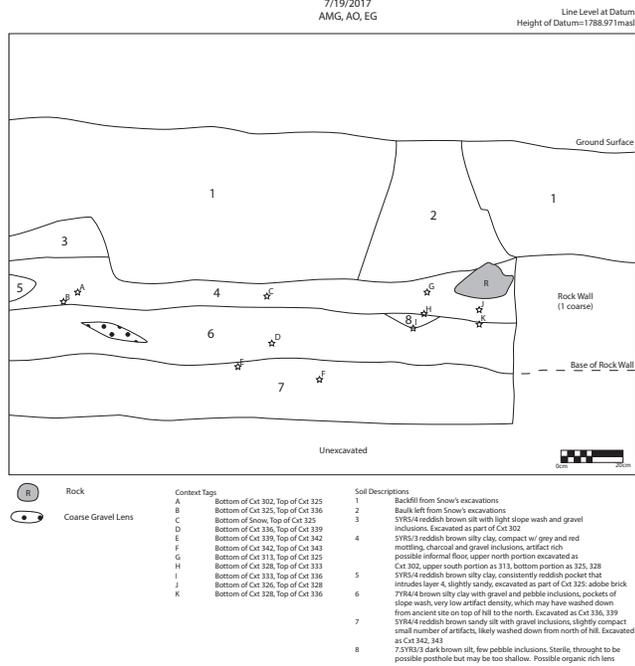


Figure 30. Profile of east wall of 2017-C.4 showing the stratigraphy of the outer room/possible corridor.

EU 2017-A and EU 2017-K

Excavation unit 2017-A was opened to explore the nature of the walled area around the south wall of the house (Feature 4) identified by Snow and Stoller and the walls found in 2016 (Figure 11, Anomaly 2). We wanted to understand whether this area could have been a roofed series of rooms or perhaps a walled garden. The excavation unit included the south wall Feature 4 identified by Snow and Stoller so that we could investigate the construction of this wall and the nature of the deposits outside the wall. We opened 2017-K, just north of 2017-A, to understand the relationship between the interior and exterior spaces divided by Feature 4.

EU 2017-A was originally a 2x2m excavation, but once the backfill was removed and tops of the south wall of the house (Feature 4) were exposed, we reduced excavations to a 1 x 2 meter unit. The matrix exterior of Feature 4 was primarily adobe wall fall in the form of tumbled adobe bricks to the south of Feature 4 (about 20 cm to 60 cmbd). Below the wall fall was a brown silty soil which was much softer and easier to excavate. Below that was a gray compact surface, at 95-98 cmbd was the floor (Figure 31). It was not a formally prepared surface, but there were pieces of plaster on the floor surface, and small quantities of artifacts, primarily ceramics with some selenite. A possible posthole was found in the northeast portion of the excavation, near the south wall of the house. Beneath this layer was sterile sediment.

This excavation unit exposed Feature 4 from the outside and shows that the boulders rest on a red sandy subsoil. We fully exposed the footings for the house, which revealed that these were 2 courses of large basalt cobble to boulder-sized stones. The Feature 4 wall is different from the wall discovered in 2016 in Anomaly 2 which had more courses of smaller cobbles of a variety of stone types, such as limestone and rounded river cobbles. Geomorphology, phytolith, and pollen samples were taken from the surface to help us determine whether the area was a roofed room or a walled garden.

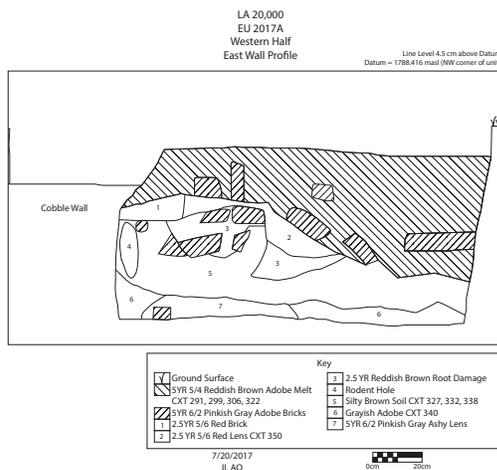


Figure 31. Profile of EU 2017-A showing wall fall.

EU 2017-K was a 1 x 1 m extension north of 2017-A to explore the relationship between the interior (north) of the Feature 4 wall and the exterior (south) of the wall. We were

particularly interested in the size of the wall, the nature of the construction, and the relationship between the floors in the interior and exterior (Figure 32).

We removed the topsoil and backfill from previous exposure of the wall during Snow and Stoller’s excavations. This consisted of about 25 cm of loose sandy soil with modern ceramics and canvas cloth. Wall fall was present in levels 6 – 8, about 55 to about 75-80 cmbd. The floor was reached in Level 9 about 85 cmbd. Level 6 (about 55-65 cmbd) had a significant amount roof fall, with reed impressions along with wall fall with plastered adobe. A wide variety of artifacts were found in this area including a spindle whorl, local ceramics, and 1 piece of majolica. The floor level had considerable quantities of selenite. Sterile sediment, a compact red silt with gravel inclusions, was reached at 100 cmbd.

One of the reasons for opening both sides of the Feature 4 wall was to understand the differences between what is clearly the interior of the house and the nature of the area newly identified as walled. The fill of the inside and outside of Feature 4 appears to be different. The inside of the house, has clear levels of roof fall with daub, plaster, and a higher density of artifacts. The exterior has no such layers of daub and plaster, and it has fewer artifacts. While the south side of the wall may have been roofed, the activities within it or labor invested in creating it were different. The interior face of the footings was considerably more flat than the face of the exterior footings. The floor surface is the same depth both sides of this wall, about 90 cmbd, which contrasts with the construction of the building’s west wall where the interior is lower than the exterior. There is no evidence of a builder’s trench.

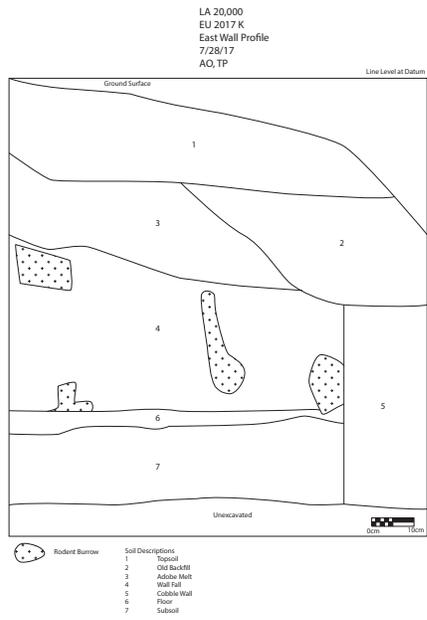


Figure 32. Left: profile of the east wall of EU 2017-K, the interior of the house. Right: footings comprising the interior of Feature 4.

Northeast House

EU 2017-D

This is a 1 x 3 meter area, which was opened to document two walls identified by Snow and Stoller. This area was not well geo-referenced during previous mapping efforts and the excavator notebooks are vague about the presence of walls in some units. We re-excavated these areas and found the possible remnants of an adobe wall first identified in 1994 in units AY10A and AY11A. Rather than a multiple-coursed adobe brick wall described in 1994, we found a single adobe brick in the western edge of the EU covered by landscaping cloth. The wall identified by Snow and Stoller was not clear. Individual adobe bricks were found, but courses could not be seen, suggesting that the brick we found could instead be loose in the fill. While multiple courses were not evident, the location corresponds to the wall previously identified just to the south.

A second possible wall to the east was identified in 1993. Excavators in 1993 ultimately felt that what they found was not really a wall; however, it remains on site maps. In the eastern end of the EU, we found a single layer of cobbles with possible adobe on top of them (Figure 33). This cobble wall appears to be more modest, less robust, than many walls associated with the house, but the cobbles are arranged in a line. Between the two possible walls was a surface with slight undulations and gravel-sized rocks embedded in it (Figure 34). The surface had north-south running ridges of harder sediment, possibly adobe although not in brick form. An ash lens was found near, but not at the bottom of the north wall of this excavation unit – well above the undulating hard surface.

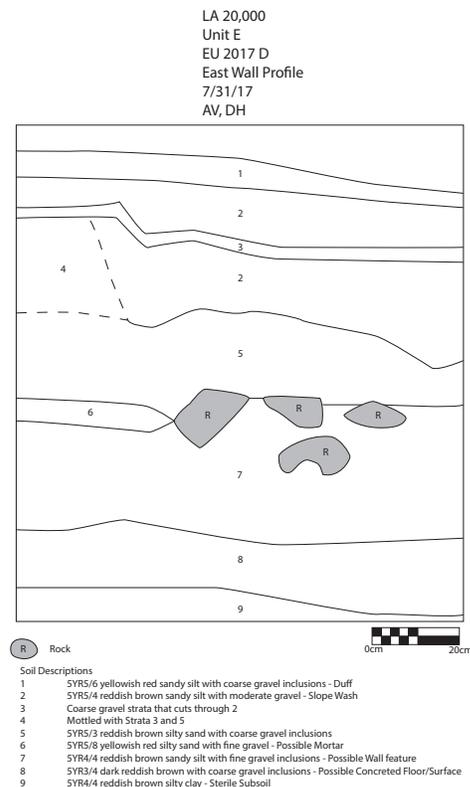


Figure 33. Profile of possible wall feature.



Figure 34. Undulating surface to the right of the photo board in EU 2017-D.

EU 2015-E

We re-opened a portion of the area identified as the *horno*. Snow and Stoller had previously excavated this area, but we had hoped that the adobe structure and footings they described as they excavated could be reopened and photographed. It appears that the *horno* was thoroughly excavated and the surfaces below the feature also removed. This is consistent with Snow's excavation notes when he reported that the *horno* was built on top of a midden layer. He clearly excavated below the feature and it is likely that little remains of it. The cobbles that remain appear loose, but we did not want to compromise the integrity of the feature so we did not excavate further. We photographed the line of cobbles, took a few pollen/phytolith samples and closed the unit (Figure 35).



Figure 35. Outline of the *horno*.

EU-AY10F

This excavation unit was placed to reopen and document an adobe platform originally identified by Snow and Stoller in 1994. This excavation unit was placed to expose the adobe platform and its connection to the back of the house (Feature 50). We did not excavate pristine deposits here, rather we removed backfill, photographed and took botanical (pollen and phytolith) samples from the platform. We were able to expose the northeast corner of the house to geo-reference that corner and document the north wall and platforms. We revealed the tops of the north wall footings, but did not try to expose the base of the footings.

The excavations revealed that the back wall of the house currently has 6 courses of adobe bricks (Figure 36, 37). The platform was attached to the building after the construction of the north wall. The platform does not have cobble footings like most other adobe walls on the site. Instead it appears to have been built directly on sediment placed against the wall. The platform is not square or rectangular; rather the north wall is curved into an arch. There appears to be a small posthole on the platform. It is not clear how this space was used or even if it was entered from inside the house or only from the outside.

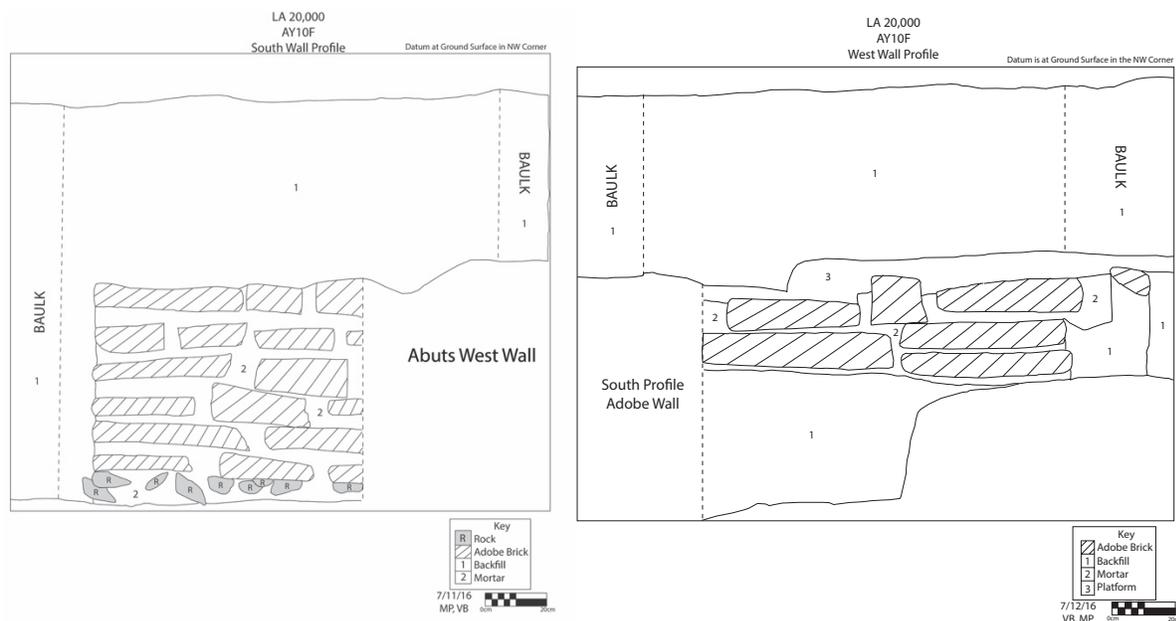


Figure 36. Left: Profile of the north-facing wall of the house (Feature 50); right: profile of the platform projecting north from the house.



Figure 37. Photographs of the adobe platform added to the north wall of the house.

Midden

EU 2015-H and 2015-J

Both EU 2015-H and 2015-J were 1 x 2 m units placed in the southwestern corner of the property to explore the extent of the midden deposits. From Wiseman's notes in 1980, we know the midden is about 20 m east-west with the main part limited to 12 m where the midden the deposits are about 1 meter deep. The north-south extent of the feature is unknown. From excavations in 1980 and 1995 we know that the feature is bisected by a utility line and that deposits exist both north and south of that utility line.

We initially place EU 2015-H north of the utility line assuming that the deposits reached that far. Using a shovel we removed the duff as Level 1. The soils that comprised this 10 cm arbitrary level were a dark brown (7.5YR 4/4) sandy clay. The second level (10-20 cmbs) was similar in color and texture. As we continued to excavate the overburden, we observed an increase in coarse gravels. Patches of distinctly darker soils, possibly an adobe melt, were concentrated in the center of the unit and SE corner. Levels 3 and 4 (20-40 cm) were similar. As we approached a depth of 40cmdb, we encountered an increase in artifacts, especially ceramic rim sherds, although the number of artifacts was still much more limited than in the midden. The sherds refitted into a large rim possibly of a bowl or plate vessel form.

Level 5 (40-55 cmdb) had an abundance of adobe and mortar fragments, as well as a single ceramic sherd that cross-mended with the refitted rim from level 4. The sediments removed from level 5 were consistent with levels 2-4, a dark brown (7.5 YR 4/4) sandy clay. Changes in soil coloration were observed in level 6 from a dark brown to yellowish red (5YR 4/6). Similar to level 5, a significant amount of adobe and mortar was present throughout level 6. This suggests a deposit of architectural waste material possibly associated with the construction, remodeling, or destruction of the residence located in Unit A.

At the base of level 6, we exposed a linear-shaped concentration of mortar in the southwest corner that stretched from the south to west wall of the unit. We decided to end the level (68-70cmdb), and excavated a .5x.5m test pit in the SW corner to investigate if the mortar concentration was associated with a possible feature. As we approached 100cm, it became

apparent that there was no feature beneath the mortar concentration and we reached a very dense, brown sterile layer. This brown strata was also encountered in EU 2015-B and 2015-G. The architectural debris suggests that we may have hit only an edge of the northern portion of the midden; however, the artifact density was much lower than was expected for midden deposits.

The east profile shows the sediments dipping steeply to the south (Figure 38, 39). Below the loose sandy duff, there were coarse gravels and small rocks throughout. Levels 5 and 6 had architectural debris, in the form of brick fragments and mortar, but throughout the excavation unit, there were few artifacts. Cultural deposits ended at about 70 cm below surface with an ashy lens in the southwestern portion. Below this was a very hard dark brown sterile layer.



Figure 38. East and south profiles of EU 2015-H. Note sediments sloping down from north to south in east profile, and lighter red architectural fragments in the south profile.

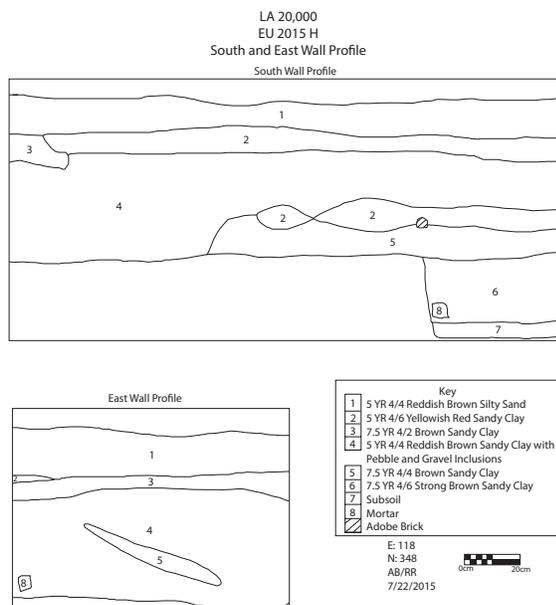


Figure 39. Profile of EU 2015-H.

EU 2015-J is a 1 x 2 meter unit, placed 3 meters south of EU 2015-H. The north wall of the excavation unit abuts the south wall of one of the 1x1m units excavated in 1995. During previous excavations, the midden was identified by the abundance, variety, and mixtures of material culture collected from several units in the southwest portion of the site. The deposits slope slightly down to the south, but are largely level with multiple layers of charcoal, ash, and architectural materials. The strata comprising the midden were primarily artifact-rich, and included flaked stone, cow and sheep/goat bones, Puebloan and majolica ceramics, spindle whorls, and charcoal. Adobe melt had impregnated some of strata making troweling difficult once the sediment was dry. The strata within the midden appear to have different compositions.

Artifacts in the duff collected include some ceramic and flaked stone fragments. We noted, but did not collect, modern bottle glass, bottle cap, plastic, gun shell (.22), and mirror glass. These modern items were most likely associated with the occupants who resided in trailer homes. From 10-20 cm (level 2), the soil was sandy clay with gravel inclusions and yellowish red (5YR 4/6). As the depth increased compaction also increased, and modern refuse diminished. Some Puebloan ceramics were collected from level 2. At the north wall of the unit, distinctly different soils were identified as the possible south edge of the previous excavation units from 1995. The two units overlap by 10cm from the north wall, and 90 cm from the west wall of the EU 2015-J.

At approximately 24 cmbd, there was a noticeable increase in artifacts throughout the unit. The overall dark brown (7.5YR 4/4) sandy clay contained a variety of material culture including metal, flaked stone, and great quantities of faunal remains, and ceramic sherds. In level 4, we decided to change our screening methodology and use an 1/8" mesh due to the presence of small finds that would easily fall through an 1/4" mesh screen. We reached an ash lens at a depth of 35 – 40 cmbd. A small number of modified ceramics, possibly spindle whorls, were recovered from the ashy/charcoal laden soils. Below this was layer with faunal remains (metapodials) from sheep/goat. In addition, there were several large ceramic sherds that were mendable. There was also a significant amount of architectural materials (adobe, mortar, and selenite) mixed in the reddish brown (5YR 4/4) sandy silt.

Beneath the remaining ash lens was a layer of extremely silty soil that contained charcoal and small gravel inclusions. As we continued to expose the silty layer, ashy pockets were uncovered and appeared to be part of a distinct layer throughout the entire unit. This ashy layer had a thickness of 3-7 cm. There was a significant amount of charcoal mixed with pieces of chunky charred wood. Artifact density was high. We collected fish bone and another straight pin from level 8. At a depth of 60 cm, the soils were distinctly more compact although the artifact density was similar to the level above. Throughout the unit, the sediments were a brown (7.5YR 4/4). At the base of the level (65-67cmbd), we reached a red sand layer in the southern half, and in the northern portion, a the compact soil.

We removed the red sand lens in the southern half of the EU, and exposed adobe melt in that portion as well. The overall composition of the adobe melt layer was dark brown (10YR 4/4) with a silty sand texture that contained small gravel inclusions. There was a decrease in the number of artifacts associated with level 10, which had a bottom depth of 73 cmbd (NW).

Levels 11 through 13 (to 81 cmbd) was a consistent brown layer with gravel inclusions. Artifact density increased, especially in the number of sheep faunal remains which included a jaw and ribs. Artifacts included flaked stone, faunal, ceramics, and charcoal. As we excavated the level, we came down on brown (7.5YR 4/4), compact, silty soils in the southern portion of

the EU. In the northern half, there appeared to be a concentration of gravelly architectural related materials mixed in brown sandy silt soils. At the bottom of level 13, we also noted two possible adobe bricks. There was no observed change in soil composition in our final level 14 from the previous level. The brown (7.5 YR 4/4) sandy silt was encountered across the EU. Although some artifacts (ceramic, faunal, and charcoal) were collected, the artifact density decreased substantially overall toward the bottom of the cultural layers. There were midden deposits to about 92 cm, below which it became a hard, dense, dark brown silty sand and sterile (Figure 40, 41).

EU 2015-J was re-opened in 2017 for phytoliths. Emily Dawson, a PhD candidate at University of Texas, took samples from the south profile. In total she took 13 samples, from 15 strata visible in the south profile.

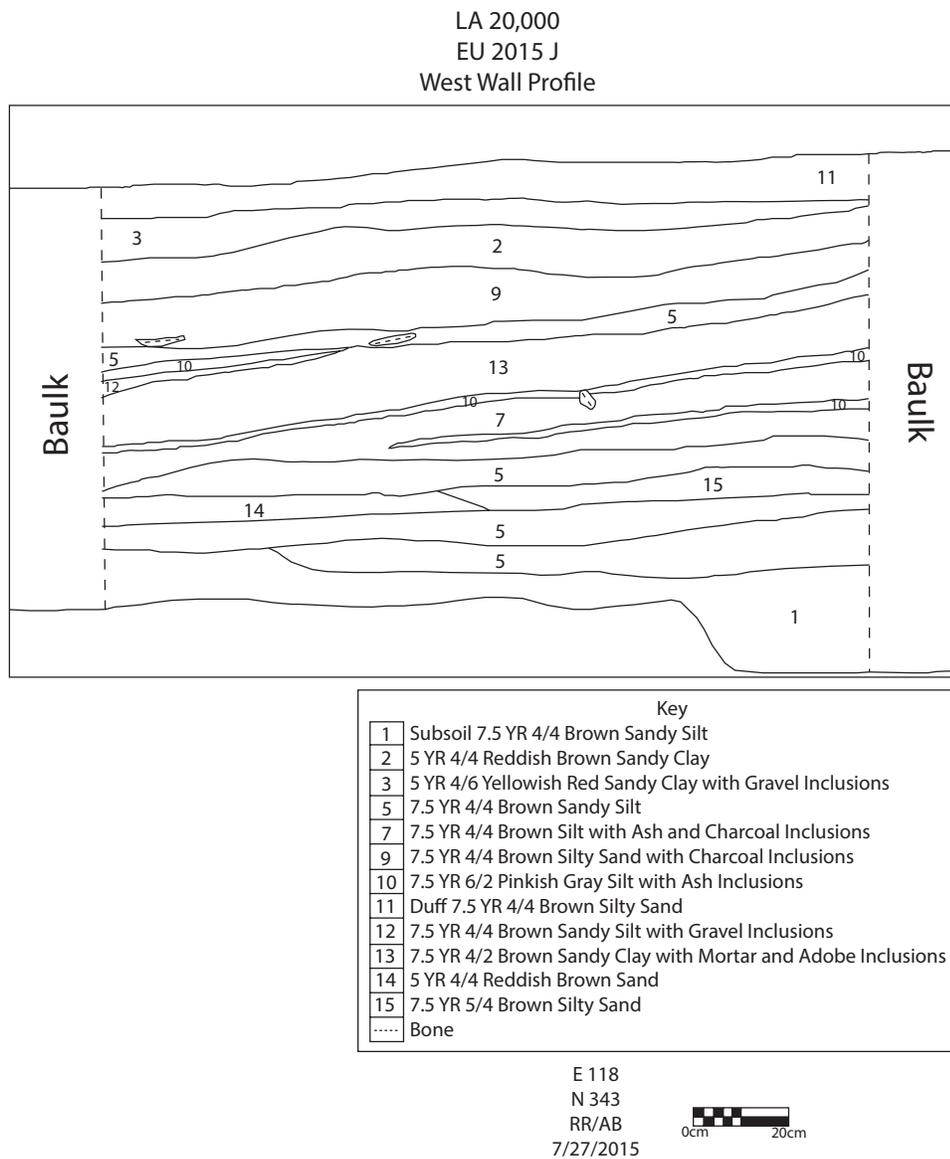


Figure 40. Midden.



Figure 41. Midden.

EU 2015-G

This was a 50 x 50cm excavation unit located at the southern boundary of the site, approximately 20m south of EU 2015-E. We located this excavation unit here to try to avoid deposits that were heavily anthropogenic although we did recover a few artifacts – a bone and ceramics. This excavation unit was excavated with shovels and screens. We excavated to a final depth of 60 cmbd, documenting four distinct stratigraphic layers easily identified in the profile of the south wall. The topmost layer (0-5 cmbd) consisted of loose sandy duff, 5-15 cm below the surface there was a compact sandy silt, followed by a hard packed sediment at 15-23 cmbd. Below that (23-55cmbd) was a sterile hard-packed silt (Figure 42).

A single pollen column was taken from the south profile of the unit. The first sample was taken from 40to 48cmbd. Subsequent samples were taken every 2 cm. We did not sample soils from 48 to 56 cmbd because the sediments were too compact and that the use of a mattock on the hardened materials could potentially contaminate samples. In total, we recovered 24 samples for palynology. Three samples were submitted for AMS dating. Pollen sample 9 returned a date of Cal AD 1655; Sample # 22 – Cal AD 770, and Sample #10 – wide range of dates from AD 1665 to 1900. These samples form a portion of Anya Gruber’s MA thesis.

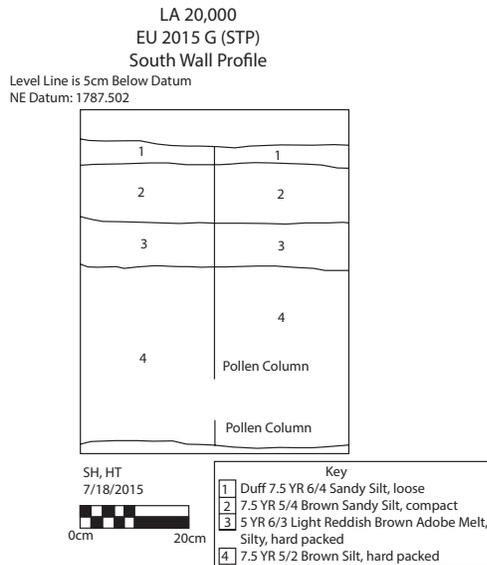


Figure 42. South profile for EU 2015 G showing location of pollen column.

Area between House and Barn

We opened four excavation units between the house and barn to look for additional structural elements or extramural activity areas (Figure 12, EU 2016-G, 2016-K, 2016-N, and 2016-P). In most of these units, we found layers with numerous artifacts, evidence of burning and substantial layers of manure. In 2016-K we found evidence for two burning episodes. EU 2016-N had artifact-rich layers and some evidence of burning. EU 2016-G had deep, very thick layers of manure, which were unburnt and largely unconsolidated. EU 2016-P was considerably more shallow and had less material culture.

EU 2016-G

This unit was placed to look for postholes that might have been associated with the barn. Two possible postholes were identified by Snow and Stoller in the space immediately west of the barn. We wanted to determine whether a line of postholes continued west, in the case of a fence line or did not continue, which might indicate a ramada or similar structure attached to the west of the barn.

We opened this 1 x 2 meter unit farther west from Snow and Stoller's units to understand the area adjacent to the barn. There is a previously excavated portion clearly visible in the western portion of the north profile (Figure 43, 44). Besides this disturbance, there are three main stratigraphic units in this unit. The top 5 strata appear to be layers of red sandy loam, post-occupation fill. Below this there is a distinct break between roughly the east and west half with different stratigraphic histories on each side of the break. On the north side of the break there is a thick layer of loose white ash and over the top of layer of charred material (Figure 43). Below that was a thin layer of red sandy fill and a layer of powdery organic material, possibly manure. Below those layers are hard heavy reddish brown sandy silt and sandy silt, sterile.

In the western half, there was a sharp discontinuity from the eastern half. The western half was much deeper, did not contain a burn layer, but instead had a thick layer of spongy, unweathered, unconsolidated manure. Above this thick layer of manure were thinner layers of alternating red sandy loam, probably slope wash and more organic layers, possibly of redeposited adobe melt, ash, charcoal, or cultural material. Below the manure was a heavy brown sandy silt -- the sterile sediments. In the western 50 cm of this unit, beneath this brown sandy silt is a thick layer of caliche.

This discontinuity may have been natural, perhaps due to channeled erosion from the hillslope above. Or more likely, the pit was dug, perhaps as a borrow pit or for making adobes and later filled with manure. The pit appears to be quite large as we did not find the western side of it.



Figure 43. North profile EU 2016-G showing burn layer and deep unconsolidated manure deposits.

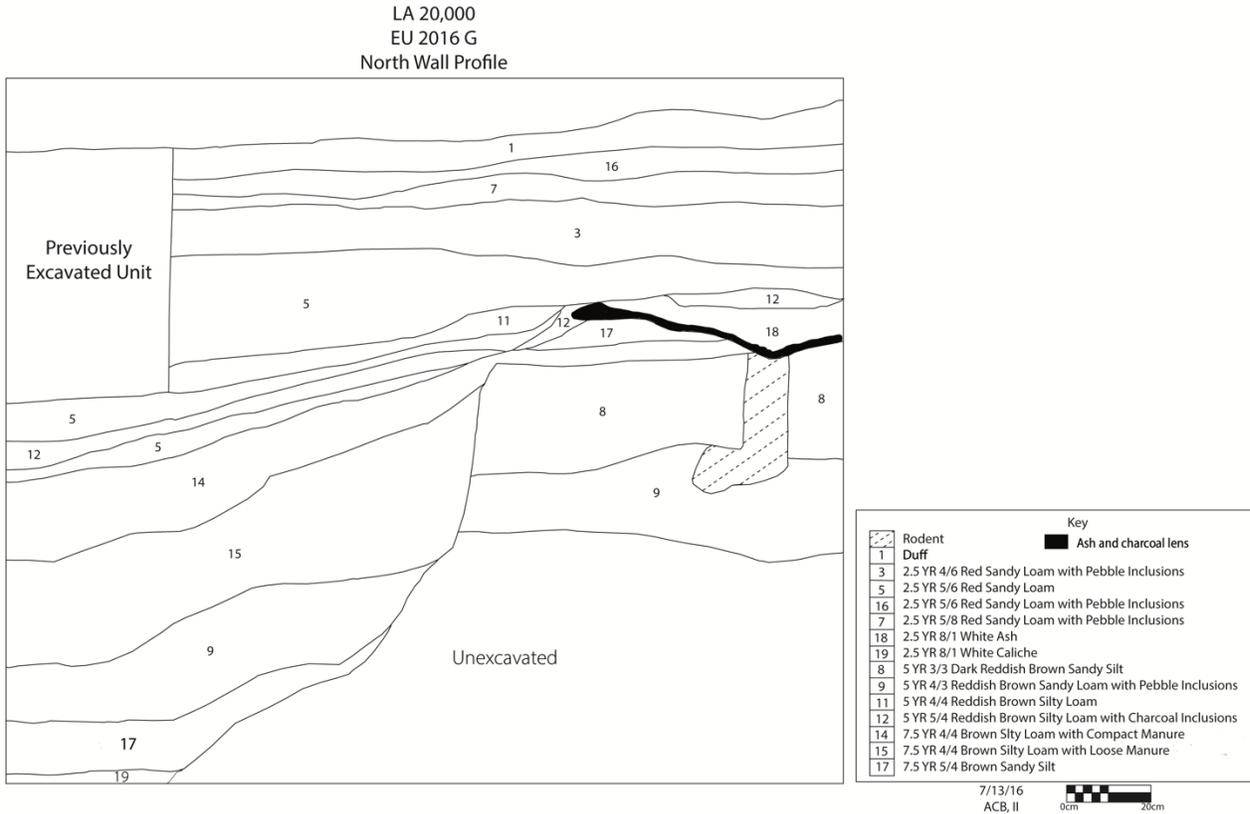


Figure 44. Profile of the north wall of EU 2016-G.

EU 2016-K

This 1 x 1 m excavation unit is located in the space between the house and barn. No features or architectural elements were found in this unit, but there were two burn layers. Upper layers of the EU were red and brown adobe melt and gravelly post-occupational fill (Figure 45). Few artifacts were recovered from these topmost levels, and these layers are probably result of sediment washing from the slope above the site. By level 6 (60 cmbd) and 7 (70 cmbd) artifact and bone densities increased and the sediment was a softer sandy loam and charcoal flecking was increasing. By 80 cmbd, artifact and charcoal densities were high. The top burn layer was encountered at about 84 cm. This burn layer was a 2 cm thick layer continuous across the excavation unit. Beneath the first burn layer at about 87-90 cm bd was a layer of organic material, possibly manure. This possible manure layer was about 20 cm thick and contained abundant ceramics. A second burn layer was encountered at about 110 cm bd. This layer was discontinuous across the unit, occurring primarily in the eastern half. This burn layer was approximately 2-10 cm thick, and had few artifacts. Beneath the second burn layer was another layer with manure only in the east half of the unit, along with pieces of charcoal. The west half of the unit was a darker brown sandy silt with few artifacts. By 120 cmbd a sterile layer of brown fine sandy silt was reached across the unit.

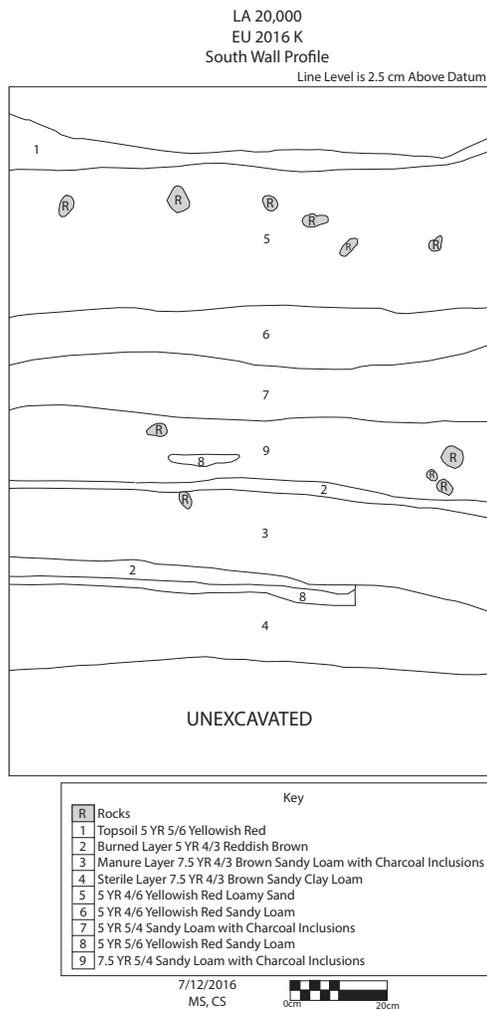


Figure 45. 2016-K south wall profile. Note two burn layers. Excavation unit is 1 x 1m.

EU 2016-N

This 1 x 1 meter EU was placed between the house and barn to explore extramural spaces. The upper levels of this EU had a modern burn layer, evidence of activities at the 20th-century trailer park. Modern glass and plastic were recovered from this surface layer. Sediments included sands and gravels from the slope above the site. Under the modern duff layer is a more compact level with no modern trash and very little charcoal. This is probably post-occupational fill. The first major cultural layer started at about 50 cm below surface and appears to be midden. Sediment in this layer was loose sand with gravel and cobbles, and the density of material culture and faunal remains was high. Substantial numbers of animal bones (long bones, mandible, ankle bones), ceramics, and flaked stone were recovered. Rodent disturbance was evident through level 5 (50-60 cm). The midden deposits continued and galloon was recovered from level 6 (60-70 cmbd) along with many sherds and bone fragments. Manure was present in level 7. A series of

ashy layers, layers with charcoal flecking and manure continued to about 122 cmbd. There was a thin flat layer of adobe at about 80-90 cmbd, and from this layer we recovered a comal fragment. The final layer for this EU is another ashy layer – the thickest in this unit -- onto a reddish orange silty sand. Throughout the midden deposits, the density of artifacts, bones, and charcoal was high. We reached possible sterile layers at about 122 cm below surface and stopped excavating at about 125 cmbd (Figure 46, 47).

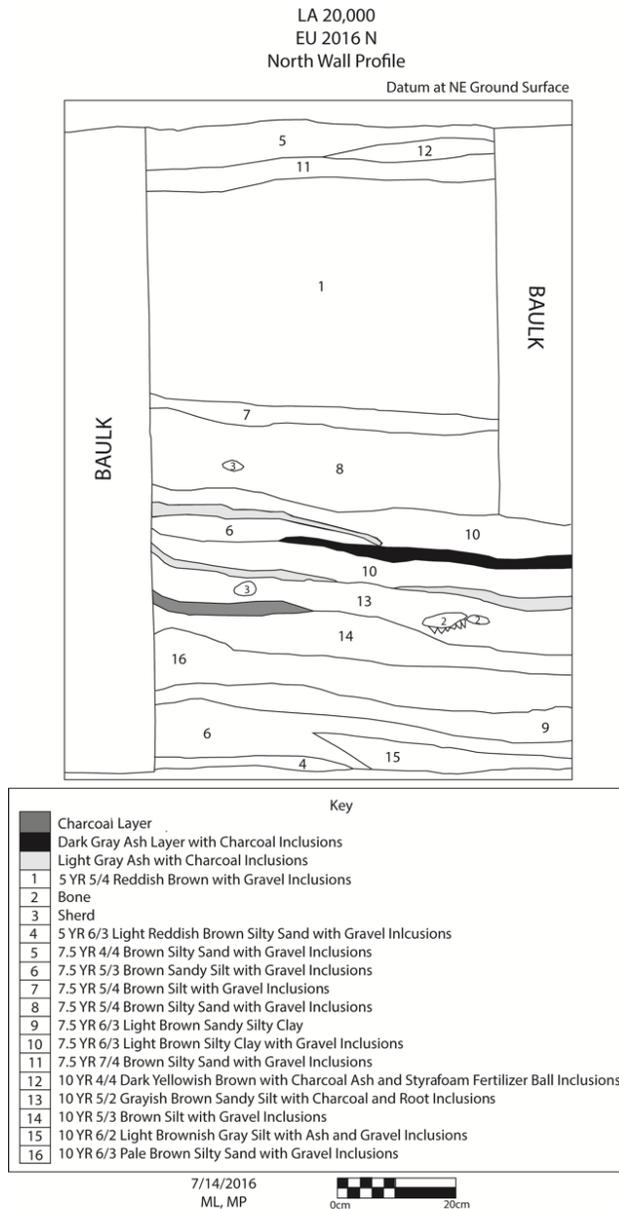


Figure 46. Profile of EU 2016-N.

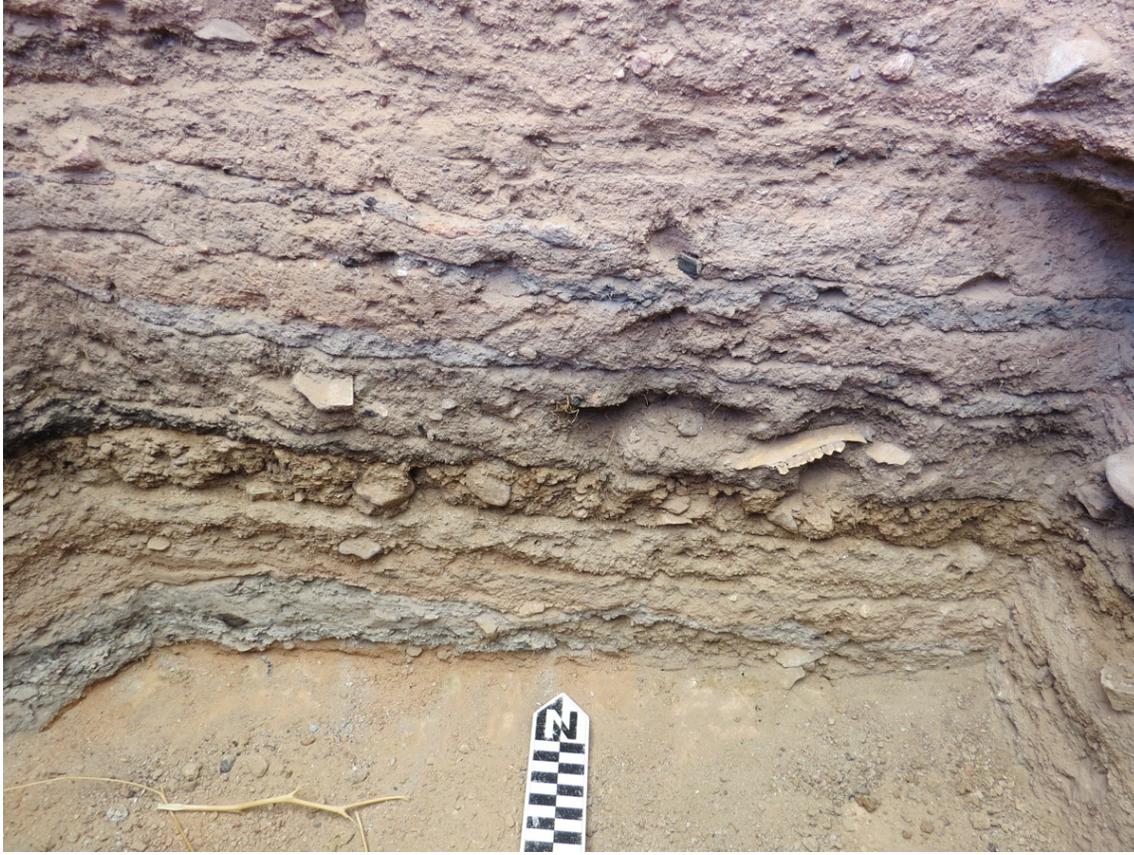


Figure 47. Lower strata of EU 2017-N, showing manure layer (green, gray layer), unconsolidated manure (beneath the mandible) and charcoal/ash lenses (blue-ish white lenses).

EU 2016-P

EU 2016-P was another 1 x 1m excavation unit placed between the house and barn, but closer to the house than the other units. This unit was considerably more shallow than other units in the extramural spaces (Figure 48). The top 3 layers (30 cm) had no 17th-century artifacts, only modern trash associated with the trailer park in the topmost 10 cm. Levels 4 and 5 (30-59 cm bd) had many artifacts – a metal (possibly brass) chain, bones, majolica although by Level 5 the artifact density was diminishing. Level 6 was 20 cm of sterile brown clayey silt with gravel inclusions. No features or architectural elements were found in this unit.

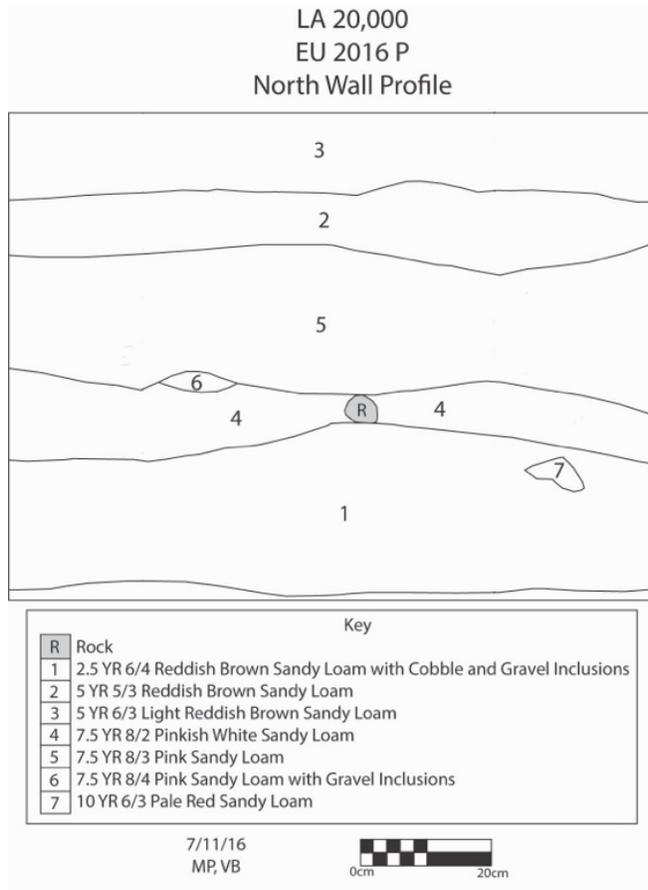


Figure 48. EU 2016-P.

Barn

Excavations in the barn and corral emphasized the testing of walls and anomalies. In the barn area we opened a series of units to understand the construction of barn walls and to test geophysical Anomaly 6 which suggested that there were previously unrecognized east-west running walls that might connect some of the north-south running walls, further subdividing this space. These excavation units include 2015-C, 2016-D, 2015-K, and 2016-Q. EUs 2015-K and 2016-Q explore and attempt to define the southern extent of the barn wall identified in 2015-C. EUs 2015-C and 2016-D show the relationship between the westernmost barn wall and an interior space. EU13 was opened simply to document the cobble surface found by Snow and Stoller. EU 2017-F was opened to test an anomaly, and EU 2017-M was opened to document the pillar.

The following four units are adjacent, and were placed to explore an anomaly and the construction of the barn.

EU 2015-C

EU 2015-C revealed a wall composed of basalt and limestone cobbles. This wall was constructed of two courses of cobbles appeared to be set in adobe mud rather than mortared

together or dry laid. EU 2015-K and 2016-Q were opened to locate the end of this wall, which does not connect with other known cobble walls in the barn. This wall appears to simply end, perhaps in a wooden structure although there is no direct evidence for this. Two burn layers were evident in the west profile of 2015-C.

There is an old excavation unit in this EU (probably Snow and Stoller's B81). This was removed, and at the bottom was a possible posthole. This feature was circular but very ephemeral, and its identification as a posthole is tentative. The wall is 60 cm wide, 20 cm high, and composed of a single course of angular boulders and additional smaller cobbles set in a thick layer of adobe (Figure 49). The boulders are set on adobe that has been burnt red and includes small cobbles and gravels (Figure 50).

During excavation, it became clear that the burn layer lies directly over the barn wall. On the wall, this layer was thin and easily removed, but remnants of the burn layer are still evident especially on the eastern half of the wall. There is a thick layer of manure both on the inside and the outside of this wall, suggesting that the area was bounded to the west by another wall or fence (Figure 51, 52).

A trench feature ran north-south through the western portion of this unit. It is possible that this is a rodent run, but the trench is fairly large, straight, and does not have tunnels branching off it. The fill of this feature is organic, perhaps manure or decomposed plants such as might happen with a line wooden posts.



Figure 49. Left: The thick black burn layer covers the top of the wall. Right: South profile. Note the trench feature paralleling the wall.



Figure 50. A close-up of the barn wall with the burn layer possibly beneath some of the footings. The mortar, probably simply mud, between the footings are heated red – rubified. According to Eric Blinman, the burn was probably at a low temperature, but it must have been hot enough or long enough to redden the mud used as mortar.



Figure 51. West profile of EU 2015-C. Note burn and ash lens with manure layer below.

LA 20,000
EU 2015 C
East and West Wall Profile

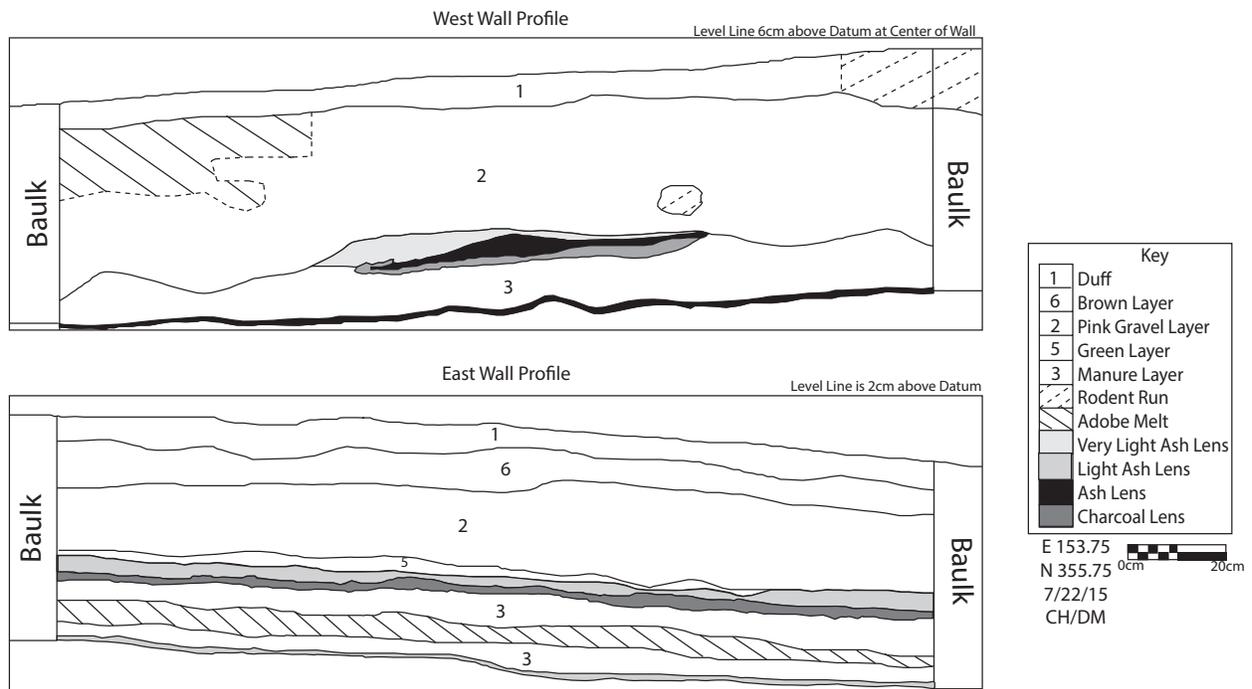


Figure 52. Profiles, inside and outside of the westernmost barn wall.

EU 2015-K

EU 2015-K was a 1 x 2 m excavation designed to follow the wall southward (Figure 53). The wall continues in this unit for another 130 cm, but ends abruptly in a very loose, rich organic layer. Beyond that, is a small amount of hard-packed sediment, possibly adobe. Excavation of sediments overlying the wall was easy as the sediments were loose, but sediments in the portion of the unit south of the end of the wall are very hard adobe melt (50-60 cmbd). Beneath the adobe melt (50-60 cmbd), the layers are very soft, powdery, organic layers (Figure 54). To the east of the wall, at 60-70 cmbd, the sediment is a dried mud and below that a fine red sand. To the west at this level, there is manure. There is a continuation of the charred layer in the northeast portion of the unit. At the far southern end of this unit, there appears to be adobe melt or an adobe brick. On either side of the adobe is very soft matrix, which could be rodent disturbance or perhaps fence posts. While it is purely speculative, the opening may have had a gate or wooden fence. Artifacts are primarily coming from the area to the south of the end of the wall and include lithics, ceramics, and fauna.



Figure 53. EU 2015-K. 1 x 2 meter excavation unit.

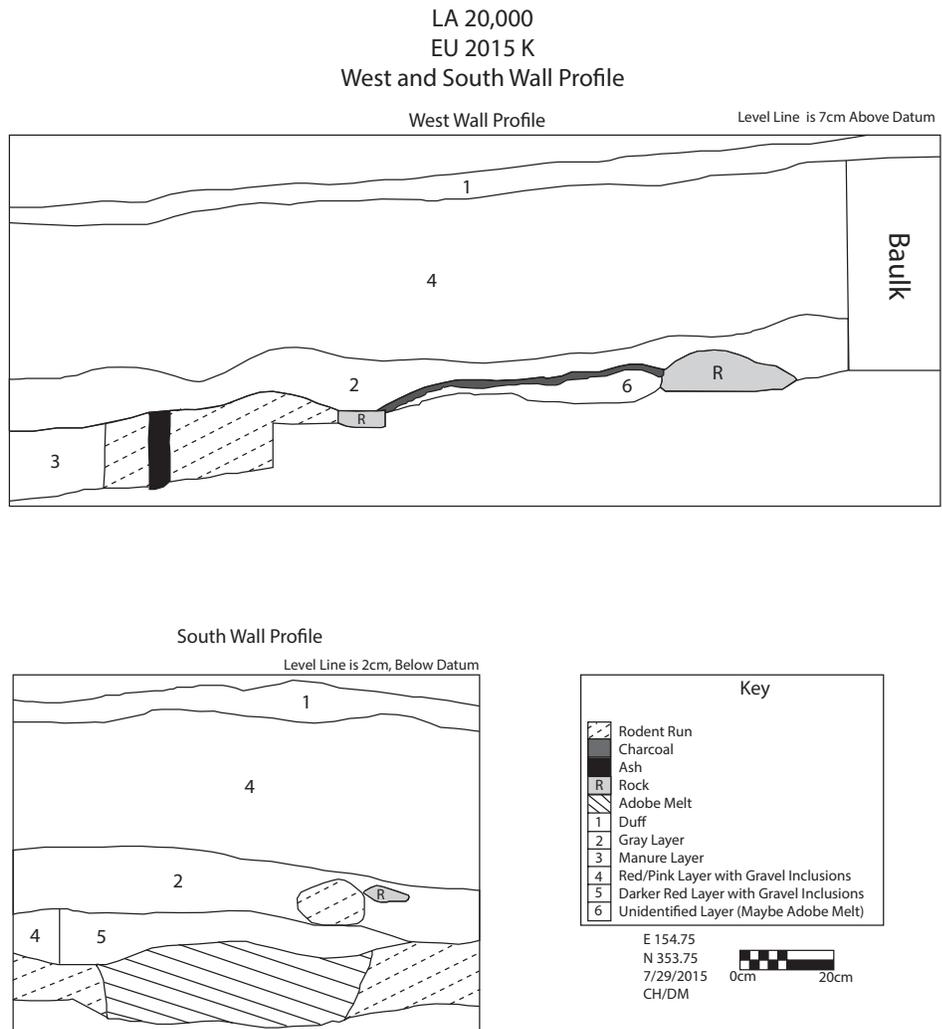


Figure 54. Profiles of EU 2015-K.

EU 2016-Q

This is a 1 x 1 m excavation unit placed directly to the south of 2015-K. It was opened to try to understand the wall that was present in 2015-C and 2015-K. We wanted to see if there were perpendicular walls, particularly running eastward, and or a continuation of the stone wall found to the north. An adobe layer, but no discrete bricks, was found about 50 cm below surface. This may be a continuation of the adobe melt layer found in 2015-K at about the same level. If this is true, there are cultural deposits beneath, but we were not able to complete excavation of this unit. Final depth for this unit was 53 cmbd. Small numbers of artifacts were recovered, primarily ceramics and bone.

EU 2016-D

EU 2016-D is a 2 x 2 m excavation unit abutting and to the east of 2015-C. This unit was opened to further explore Anomaly 6, the nature of the barn deposits, and the burn layers identified in 2015-C. The northeast portion of this unit (approximately 50 x 30 cm) was excavated in the 1990s by Snow and Stoller, probably their excavation unit B84. We did not find cultural deposits that might account for the geophysical anomaly, and the excavation unit did not have architecture that might subdivide the space. Instead the 2016-D, is an open space, inside the barn, with a burn layer (Figure 55) and deposits of manure over a mud floor (Figure 56).

There is about 30 cm of overburden, and then thin layers of silt, manure, and ash. There appears to be multiple layers of flakey manure and one major burn layer with perhaps one or two additional ash layers. These layers are thin averaging 4 or 5 cm in thickness (Figure 57). Artifacts in this unit included ceramics and fauna. A projectile point along with a sherd of glaze F ceramic and modern plastic were found when the backfill was removed.



Figure 55. Burned level in 2016-D (barn). This layer covers a mud floor. The excavator is kneeling in the old excavation unit (B84), which is also visible in the profile behind her.



Figure 56. Patches of the mud floor visible in the middle of the photograph.

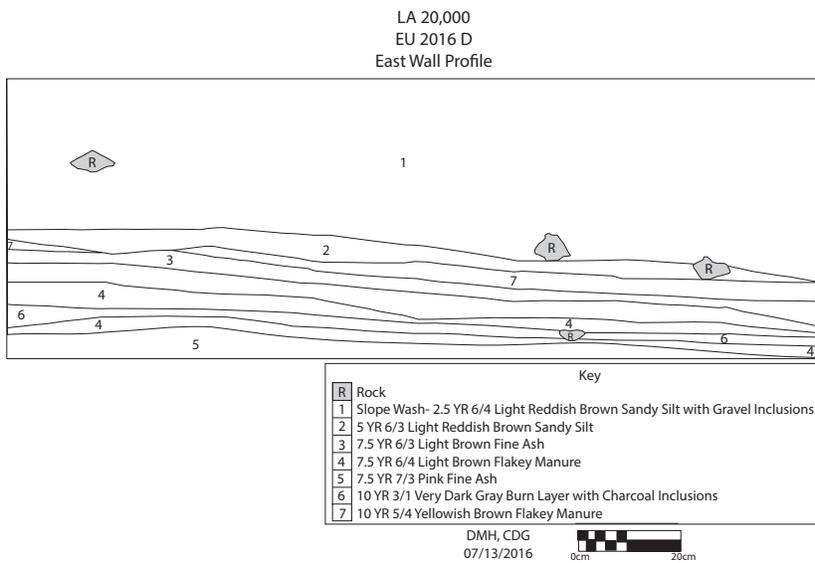


Figure 57. Interior of the barn – east wall profile of EU 2016-D.

EU 13

EU 13 (Figure 58) was opened to document the unusual cobble surface discovered by Snow and Stoller (their unit B-13) in 1991. This feature was shallowly buried, and we exposed the greater part of the southern and western part of the feature in an excavation measuring 330

cm north-south by 200 cm east-west. The northern- and easternmost portions were not re-excavated. The southern portion of this feature is missing. As it is at the edge of the arroyo, it has probably eroded away. The cobble surface was constructed of rounded river cobbles with a basin-shaped depression in the center. The cobbles are placed so that there is a depression running north-south channels liquids toward the center basin. Tabular basalt and limestone cobbles bordered the cobble surface. From notes by Snow and Stoller's excavations reveal that the eastern side of the cobble surface, which we have not exposed, was likewise bordered by upright basalt and limestone cobbles. The feature is fragile and some of the river cobbles are loose, so we did not expose a greater portion of it.



Figure 58. Photogrammetry of EU 13. Photomontage of cobble surface associated with the barn. North is to the top of the photo.

EU 2017-F

This was a 2 x m excavation unit adjacent to the cobble surface identified in Snow and Stoller's B13 and B1. This unit was opened to explore geophysical Anomaly 5, a linear anomaly running east from the cobble surface toward the corral, and to explore the relationship between the barn walls and the cobble surface farther west. Erosion into the arroyo has disturbed the southernmost footings and deposits. Footings for a north-south running wall were apparent in the southern portion of the first level. The footings are composed of three major courses of basalt

and river cobbles. Wall height is about 50 cm at its maximum. Adobe bricks were in place in the northern third of the wall; they are missing in the southern 2/3rds, probably because they were shallowly buried and had been disturbed. The deposits consist of manure, in laminated layers. There was no evidence for the anomaly in the cultural deposits (Figure 59, 60).



Figure 59. EU 2017-F west profile showing the size of footings comprising one of the barn walls.



Figure 60. North profile of EU 2017-F showing layers of manure.

EU 2017-M

EU 2017-M is a 2 x 2 m unit, excavated to document a previously identified architectural feature identified as a pillar. The top of the pillar is evident just below the surface. We reopened Snow and Stoller's units B-6 and B-3, but it became clear that these had been only partially excavated. The pillar is much more massive than had been anticipated and is among the most robust architectural features made of stone at the site (Figure 61 left) with six courses of stone. It measures 95 cm high by 65 cm north-south, and 1 m east west. The pillar was composed of cobble and small boulder sized basalt rocks mortared together with adobe. The base of the pillar coincides with a large, flat boulder to the east. This flat rock was removed to explore the stratigraphic relationships below.

We removed the backfill from Snow and Stoller's excavations and cleaned up the profiles to better understand the stratigraphy surrounding the pillar. The intact areas allowed us to investigate the nature of the deposits. There was a thin duff layer. Beneath that there was a layer of mottled brown loose loam that probably represented post occupational fill. At about 30 cmbs, there was an adobe layer that might have been the waterproofing layer of mud from the roof. Below that was a 20 cm thick layer of ash and large pieces of charred wood. This layer of ash and charcoal was widespread but discontinuous. Below the ash lens, is a nearly continuous layer of charred material (Figure 61 right). While the burn layer was extensive, there is only one such layer here – in contrast to areas outside the barn where two are evident. The charred material rests on dark gray layer of silt which is presumably the floor at approximately 60 cmbd. Below that was dark brown sterile layer. Micro-geomorphological samples were taken from the burned areas to try to determine the nature of the burnt material – timber, manure, roofing, or some other organic material (Figure 62).



Figure 61. EU 2017-M. Left: the pillar showing robust construction. Right: burn layer.

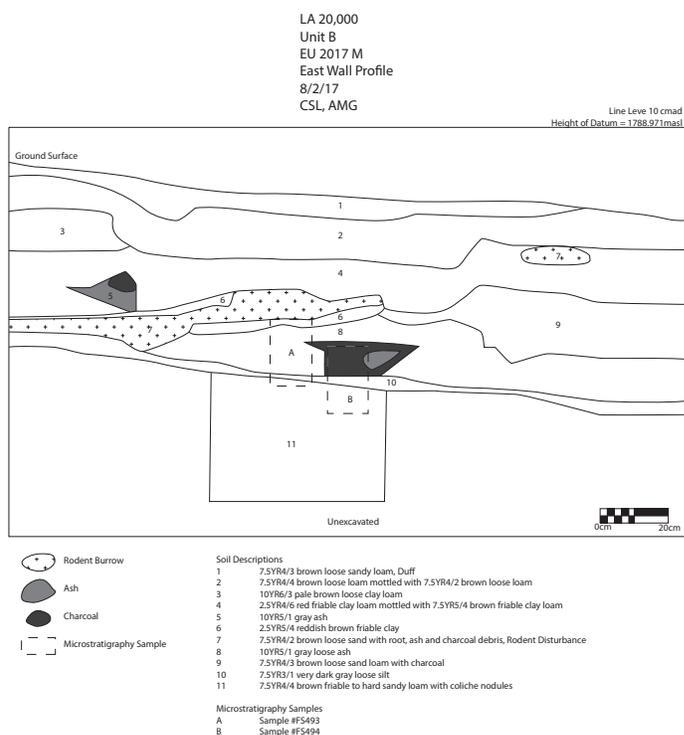


Figure 62. Profile of the intact deposits to the east of the pillar.

Barn-Corral Transition

EU 2015-D and 2016-C

Geophysical Anomalies 11 and 12 at the interface between the barn and corral (Figure 11) suggested that there might have been a separation between the corral and barn, which is inconsistent with the descriptions in the 1990s student notebooks. To verify the anomalies, we opened two units: 2015-D and 2016-C. Some of that area had been previously excavated, but profile drawings and photographs do not exist, so our work allowed us to better document this area.

We first opened EU 2015-D (2 x 2 m). This unit was placed to primarily investigate the barn, but also catch the edge of the corral wall, which is visible on the surface. The first level was arbitrarily removed in a 10 cm increment. Sediments appeared to be mixed, thus suggesting that we were re-opening a section of an earlier excavation. Sediment types present in the northern half of the excavation unit included a black-stained sandy brown (7.5YR 6/4) hard-packed sediment in the west corner, and a light-yellowish tan (10YR 6/4) highly organic and looser matrix was concentrated at the eastern extent. These sediments were consistent in color and did not appear to be mixed. In contrast, sediment coloration in the southern half was mottled with darker red and black (2.5YR 5/4) and it was loose. From this distinct delineation, we were able to confirm that we successfully located the old excavation units, Snow and Stoller's B25 and 26. Due to time constraints, we did not complete the unit in 2015. When we returned in

2016, we finished excavating EU 2015-D and opened 2016-C, also a 2 x 2 m unit directly to the south of 2015-D.

Excavation of EU 2015-D showed that the corral wall is substantial – four courses of large basalt cobbles and small boulders. It is 50 cm tall and rests on a brown silty clay. The manure encountered in the northern section of the 2015-D was deposited directly against the corral wall going westward towards the barn area. The south profile of this unit clearly shows that there is no separation between the wall delimiting the corral and the interior of the barn. In EU 2016-C, we exposed the top of an east-west running wall that divides the barn. This wall was previously identified by Snow and Stoller. This interior wall is different from the corral wall (Figure 63, 64). It consists of only a single layer of basalt boulders with a few smaller cobbles. On top of the stone footings was a layer of mortar and a single layer of adobe bricks. We only excavated a few levels to define the adobe bricks, and to preserve the profile (Figure 64).

These two units were opened in part to ground truth an anomaly that suggest there might have been a separation between the interior of the barn and the corral wall. Clearly this is not the case. This anomaly is likely the result of previous excavation modifying the density of the deposits rather than a culturally distinct feature. Organic layers, probably of manure are in contact with the corral wall and the east-west running wall abuts and rests at the same level (about 50 cmbd) as the corral wall indicating that the barn and corral were created at a unit.

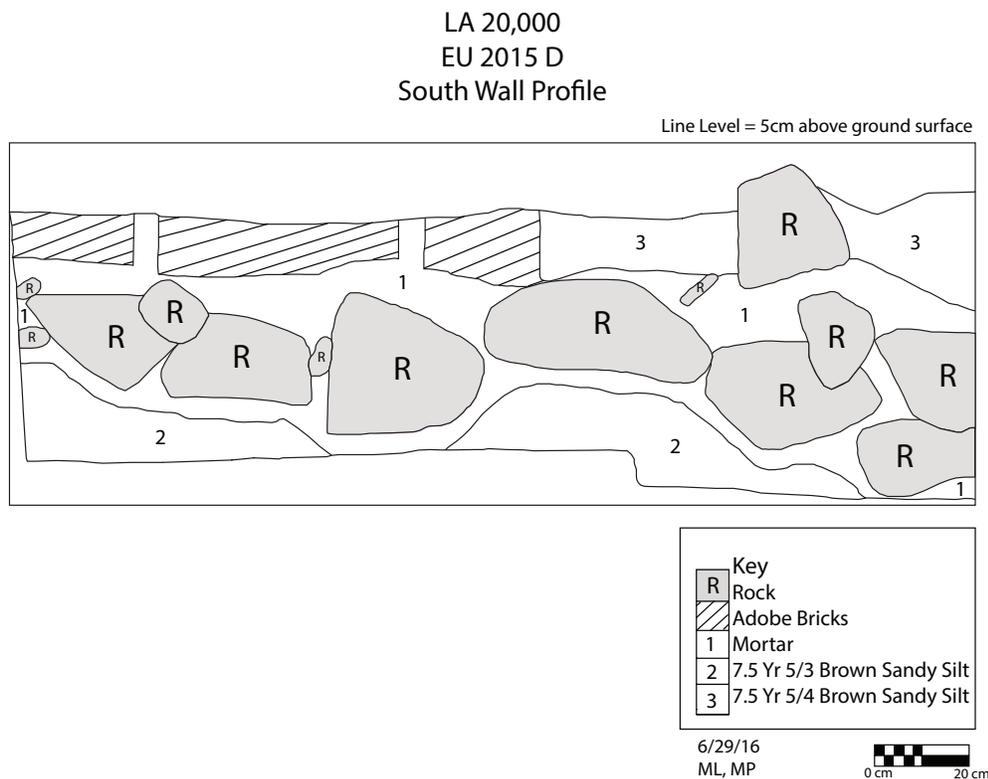


Figure 63. Profile of EU 2016-C showing the single course of boulders comprising the footings and adobe bricks on top.



Figure 64. Left: the corral wall. Right: an east-west running wall that attaches directly to the corral wall, visible on the far left.

Unit D – East of Corral

EU 2017-G and EU 2017-H

We excavated two units in the area identified as possibly a herder's quarters. Rock alignments are evident on the surface, and the geophysical survey indicated anomalies, possibly walls, in this area. This area was minimally tested in 1988, but the nature of the deposits was not described. We placed two 2 x 2 excavation units, EU 2017-G and EU 2017-H, to cover the anomalies (13 and 14) found in this area. These units are about 10 meters apart. Excavation revealed that both units had thick alternating layers of green-gray manure and reddish colluvial sediment (Figure 65).

In each excavation unit, below the layer of duff, a sandy red sediment, there were alternating layers of organic and sterile sediment. In 2017-H, there were three distinct layers of organic (possibly manure) separated by sterile red sand. These multiple layers are less distinct in 2017 G, but there are bands of green, gray or brownish manure. Tops of a few footings in 2017-G were just visible on the surface. Footings in 2017-H were a little more deeply buried, about 12 cm at the south end of the excavation unit where the slope wash was the thinnest. The wall in 2017-H consisted of two courses of small boulders. The height of the wall was 30 cm (Figure 66). There was no indication of adobe on top of the boulders, but there was mortar between the rocks. The footings for these walls are substantial but still smaller than those used on the western edge of the corral. The footings rest on a hard brown silt. Artifact densities in both units were minimal, primarily fauna with a few lithics and ceramics. A horse mandible was found in 2017-G.

Based on the stratigraphy and artifacts, we were able to determine that this area was probably not used as a herder's quarters. Were this the location of a living area, we might expect to have found a hearth or thermal features for cooking or heating, charcoal, or artifacts associated with food production, preparation or consumption. We might also have found architecture similar to the house, with its adobe bricks or, if more temporary, of jacal or simple shades. We found none of these. The uniformity of the deposits across the 10 meters between the two units we excavated suggest a single set of depositional processes in both units (Figure 67). This

suggests an open, undivided area that would not be expected from a living area of this size. There were also manure layers, and the artifact counts were strikingly low. Animal bones were the most common specimens recovered, with ceramics, so common on the rest of the site, being limited in number. These findings suggest that the area was not used as for habitation, such as home for low status or temporary workers, but was instead another corral adjacent to the main corral.



Figure 65. North profiles of EU 2017-G on the left and 2017-H on the right. Note the alternating layers of gray manure-rich sediment and reddish, sterile colluvial sediment.



Figure 66. EU 2017-H east wall showing the cobbles used in the walls.

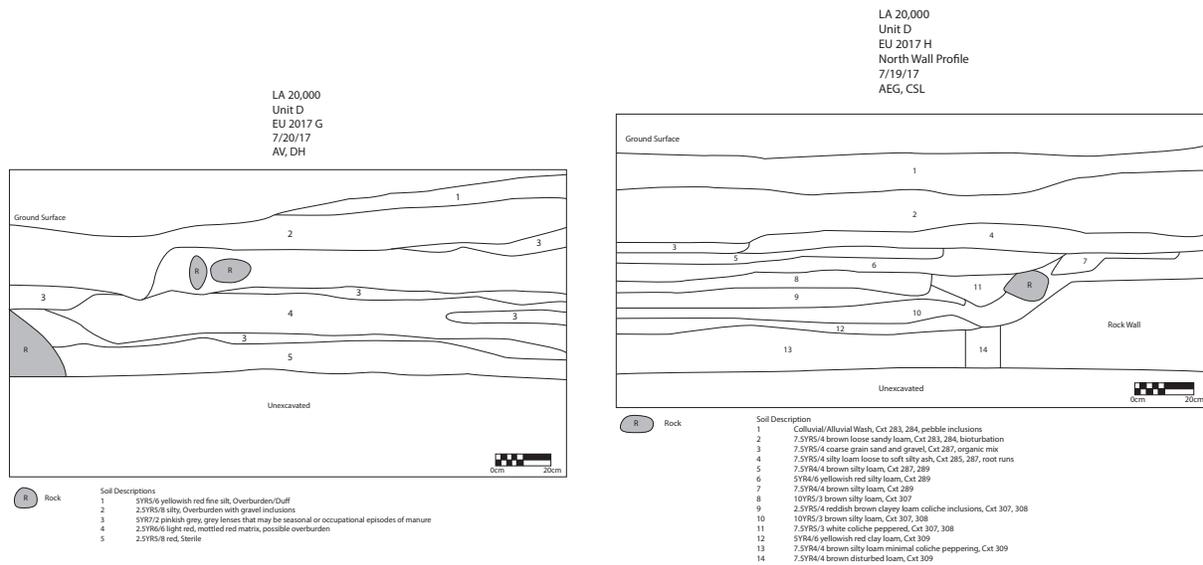


Figure 67. Stratigraphy of EU 2017-G and 2017-H.

Samples

We undertook an extensive sampling strategy for environmental and site formation data. We collected samples for palynology, parasite and soil chemistry analysis. We re-opened EU 2015-J in the midden to take phytolith samples. These samples will be analyzed by Emily Dawson of the University of Texas, Austin.

During the course of this project, we took a total of 49 samples specifically for pollen analysis. These comprise the data source for Gruber's (2018) MA thesis on agro-pastoralism at LA 20,000. Samples were taken from manure layers in and around the barn, and from floors within the house. Samples from these cultural layers are in addition to a column of samples, taken from a 50 x 50 cm unit south of the midden, designed to explore the vegetation change from prehistoric times to the present. We took over 100 soil and flotation samples during these excavations. All flotation samples were processed in the field, and we were able to float soil samples collected by Snow and Stoller, which were being stored at El Rancho de las Golondrinas. Combined with samples taken by Snow and Stoller, these samples are being used by Ivanova's thesis on the macrobotanicals from LA 20,000.

Dennis Piechota has taken a series of 43 micromorphological samples for the examination of microstratigraphic relationships in 9 excavation units. These samples were taken in targeted areas to address specific questions about the nature of the strata and site formation processes. In the house, samples were taken from the floor of the newly discovered room (EU 2017-A) to try to discern whether the room was roofed or simply a walled area. Samples were taken in the area between the house and barn (EU 2016-K), to understand the nature and relationships of the two burn layers. Samples were taken in EU 2017-H to understand the alternating layers of greenish organic material and red sandy silt. Samples were taken from the

burn layers near the pillar in EU 2017-M to understand the nature of the burnt material – roof fall, manure or some other material. Piechota also collected clay from the bank exposed by the arroyo opposite Unit D.

CHAPTER 4

ARTIFACTS AND LABORATORY WORK

The artifacts from the excavations have been cleaned, catalogued, and entered into the database. The master ArcGIS site map has been updated with all new excavation units. Specialized analyses are underway as Dennis Piechota has prepared and interpreted some of the geomorphological hand samples and will be analyzing those. These samples will help illuminate the history of the site and the nature of the stratigraphy. Graduate students from a variety of institutions are undertaking analysis of artifact assemblage and samples. Engaging graduate students in the research is an important component of the project, and University of Massachusetts Boston students are using the materials for master's theses and we are presenting the results of the research at professional meetings. Anya Gruber analyzed pollen from the 2015-2017 excavations. Her research contrasts the vegetation changes around LA 20,000 with the analysis done by Kyle Edwards (Edwards 2015; Edwards and Trigg 2016) at the Leonora Curtin Wetland Preserve to tease apart local and regional environmental changes accompanying Spanish colonization. Ivana Ivanova has begun examining the macrobotanical samples to understand the foundations of New Mexican cuisine. Ana Opishinski has inventoried the recently discovered faunal remains from Snow and Stoller's excavations along with the 2015-2017 collections. She has identified the animal remains and looked for butchery marks to help us understand the meat component of the diet. Clint Lindsey has begun to examine the lithic materials, especially tool production and use and their relationship to local indigenous communities. Adam Brinkman looked at the distribution of cooking and food consumption artifacts (*manos*, *metates*, *comales*, and ceramics) across the site (Brinkman 2017). This research seeks to explore how the household created meals and how enslaved or temporary workers might have been provisioned with food. Caitlin Connick has studied the ceramic vessels within the house specifically looking at the size and forms of ceramics that might relate to food preparation and storage. Stephanie Hallinan (2019) used GIS to study the location of Spanish settlements relative to environmental factors, such as water or arable land, and social factors, such as the presence of missions or laws regulating the placement of ranches relative to indigenous villages.

There are students from other universities who are using LA 20,000 materials for their research. Danielle Huerta, a PhD student from University of California Santa Cruz, is looking at the petrography to source some of the ceramics to trace connections between LA 20,000 and the surrounding Pueblo communities. Emily Dawson from University of Texas Austin is looking at phytoliths to understand the plant component of the foodways that cannot be discerned by other plant parts such as seeds and pollen.

Artifacts

Ceramics

Ceramics were the most common artifact that we recovered. These were from a variety of ceramic traditions, from local Pueblo-made wares to imported majolicas and even a few porcelains. The geographic sources of the Pueblo ceramics is expansive. We recovered Rio Grande glazewares; Tewa bichromes, polychromes, and plainwares; micaceous wares; and a few Jeddito wares.

We recorded basic information about the ceramics we recovered, and this information is available in a Filemaker database. We noted information about the culture that created the types: Spanish/European for *majolica* (even if the likely location of production was the Valley of Mexico) and olive jars, and Pueblo for ceramics made within New Mexico. We did not identify ceramics that could be attributed to Navajos or other non-Pueblo New Mexican peoples. We tentatively identified origin of the porcelains. Indigenous Mexican ceramics have been found at LA 20,000, but we did not identify any in the 2015-2017 excavations. When we were able, we offered a more specific type (for example, Jemez black-on-white, Jeddito polychrome).

We recorded basic descriptive information (redware, buff ware) when we could not identify a type. We also recorded such information as the presence of a slip and its color, the presence of paint, its color and whether a black paint was matte or glaze.

For each type of sherd, we recorded information about the nature of the vessel (whether jar, bowl, plate or other) and portion of the vessel that the sherd represents (body, shoulder, rim, base, handle or other). We also noted if a sherd was modified or shaped, such as repurposing a sherd into a spindle whorl or disk. In general, sherd sizes were so small that it was frequently difficult to determine jars or bowls, and even rim sherds often were too small to discern form, to use the Mera's rim form typologies, or to determine the size of the vessel.

In our 3 years of excavation we recovered almost 6000 ceramics (Table 2). The vast majority (99%) of them were Pueblo-made. Only 22 pieces of *majolica* (Figure 68) and 2 of olive jar were recovered, and we identified 6 pieces of porcelain. A few clearly modern ceramics – glazed stonewares, a tiny fragment of modern porcelain and a couple of mold-made, low-fired tiles – were recovered, typically from the upper levels of excavation units.

Significant post-use damage to the ceramics has occurred. Sherd size was generally very small with an average weight of the 2015 and 2016 ceramics of about 3 grams or .1 oz. Even ceramics from protected areas, such as the interior of the house, were small. We did not find any whole or nearly whole ceramic vessels and while we did find ceramics that mended, most were very small portions of larger vessels. While we did not find reconstruct-able pots even on the floor of the house, but we did find pieces of a decorated glaze polychrome bowl and mended what is probably a small portion of the vessel (Figure 69).

The small size of these ceramics makes identification to type difficult. Some types of ceramics such as micaceous wares are easily identified even if the sherd is small. Without detailed examination of paste and temper materials, which we have not yet undertaken, our ability to identify especially glazewares or Tewa polychromes is dependent on having a piece with decoration or paint. So the small size of the sherds has complicated our ability to identify these types. We attempted to classify sherds that were smoothed or polished but undecorated as plainwares. Many of these were probably small portions of much larger decorated vessels. Unsmoothed sherds, ones that had striations or remnants of corrugations were simply classified as utility. Glazewares were identified if we could detect glaze paint. We could generally identify such matte paint wares as Tewa polychrome or Sankawi black on cream depending on the number of colors. We recovered a few sherds with organic paint and some Biscuit wares. Highly polished black or gray sherds were identified as Tewa black or gray (Kapo black or gray). In the absence of decoration, the only other undecorated sherds we attempted to identify were from the Hopi area. Those bright yellow or orange paste colors and hard, fine-grained paste are obvious. With the micaceous ceramics, sometimes the sherd had a great deal of mica, suggesting a slip with deliberate concentration of mica. Other sherds had only small amounts of mica suggestive of accidental or casual incorporation of mica.



Figure 68. Majolica sherd



Figure 69. Glazeware bowl.

Plain wares were the largest group recovered at 36%. Micaceous wares were common at 14% of the assemblage. Other utility or culinary wares constituted about 23%. Glazewares were the most common decorated ceramics at 22% of the assemblage. Tewa wares (bichromes, polychromes, and polished plainwares) constituted about 3%, although some of the sherds identified as Plain may have been Tewa.

Some of the ceramics were heavily burnt, and we recovered 15 modified sherds that we have identified as spindle whorls.

Not surprisingly, the highest density of ceramics came from main midden south of the house and to a lesser extent, another midden near the barn in EU 2016-N (Table 3). Fewer ceramics were recovered from the barn, although olive jar, majolica, and porcelain were found in the midden type deposits in 2016-N. Ceramic density, especially toward the eastern side of the barn near the corral, is much lower. Very few ceramics were recovered from the area east of the corral, in EU 2017-G and 2017-H. The distribution of ceramics varied among locations in the house. EU 2015-A, on the far western side of the house had a relatively low density of ceramics, especially when compared with higher density areas such as EU 2017-C. EU 2017-A, in the newly discovered section of the house, has a somewhat lower density of ceramics than 2017-K, which is interior to the main part of the house.

Table 2
Ceramics by Ware

Ware	Count	Percent
Glazeware	1322	22.21
Gray/Whiteware	80	1.34
Redware	51	0.86
Sankawi	11	0.18
Tewa	159	2.67
Jeddito	9	0.15
Plain	2151	36.13
Micaceous	853	14.33
Utility	445	7.48
Unknown Pueblo	811	13.62
Majolica	22	0.37
Olive Jar	2	0.03
Porcelain	6	0.01
Unknown	31	0.52

Table 3
Ceramics by Site Area

	Unit A	Unit B	Unit D
Glazeware	1105	213	4
Jeddito	7	2	0
Redware	48	3	0
Sankawi	4	7	0
Tewa	154	5	0
Gray/Whiteware	67	13	0
Micaceous	720	133	0
Plain	1969	179	3
Utility	387	58	0
Majolica	20	2	0
Olive Jar	0	2	0
Porcelain	0	6	0
Unknown	580	261	1
Total	5061	884	8

Lithics

A full lithic analysis is being undertaken by Clint Lindsay. We recovered 174 pieces of lithic chipped stone material including 1 projectile point, 2 bifaces, 7 cores, 1 drill, 1 end scraper, 1 gun flint, 1 strike-a-light, modified angular shatter, modified flakes, and modified debris (Table 4). We also recovered 155 pieces of debitage consisting of flakes and shatter.

As an assemblage, most of the lithic material was of cryptocrystalline silicates, however, most of the tools were obsidian. The projectile point was made of obsidian, as was one of the bifaces and the drill (Figure 70). Another biface and the scraper were chalcedony, as were some of the cores and modified flakes. The strike-a-light was chert (Table 5). Most of the materials appear to have been produced elsewhere – not created on the site – because we have found little debitage. Many of the tools appear to be expedient tools although there is a small number of formal bifaces such as knives and gun flints.

We also recovered a few pieces of ground stone. Seven pieces probably all belong to a single comal. There is perhaps one hammerstone. Other pieces are small and have yet to be fully analyzed. One of the most interesting finds is a polishing stone. This stone is small so it is unlikely that it is a floor polisher.



Figure 70. Obsidian drill.

Table 4
Tool Types

Tool Type	Count
Cores	7
Modified flakes	6
Modified shatter	4
Strike-a-light	1
Gunflint	1
Biface	2
Drill	1
Scraper	1
Projectile point	1

Table 5
Lithic Raw Material

Material	Count
Cryptocrystalline Silicate	48
Chalcedony	52
Chert	36
Greenstone	1
Limestone	10
Obsidian	11
Quartz	12
Quartzite	4

Metal

We collected 57 pieces of metal and 87 of slag. Some of the metal is clearly modern trash associated with recent occupation of the site by the trailer park. Screws, washers, bottle caps, pull tabs, and bullet casing attest to recent activities. Some of the metal pieces, however, relate to the 17th-century occupation. These include a brass chain and piece of galloon (Figure 71) that may have been used for personal adornment. The pins and tacks need further study, but they may or may not relate to the 17th-century occupation of the site.



Figure 71. Galloon.

Glass

We recovered 749 pieces of glass during the three years of excavation. Some of that glass is clearly modern – such as 160 pieces of amber bottle glass – likely a beer bottle. The vast majority of the glass was recovered from the first 10 cms of an excavation, and probably represents modern debris.

Only 7 pieces of glass were recovered from depths below 20 cm. All of that glass was fragmentary pieces of much larger pieces. They were typically thick, heavy clear or green curved glass and look relatively recent. Only one small piece was of flat glass.

Faunal Analysis

For an MA thesis, Ana Opishinski has undertaken an analysis of all faunal materials available, including those from Snow and Stoller's excavations. While some of the missing faunal remains from the earlier excavations have been found, it is clear from old inventory lists, that there are some items still absent. Opishinski's work rests primarily on the materials that she was able to examine, the materials from 2015-2017 excavations and that material which has been found by David Snow, but when possible, she incorporated information from the old inventory lists. Under the direction of Dr. David Landon, Opishinski examined all the materials, gave a taxonomic identification where possible, and examined the bones for pathologies, butchery marks, and burning. When possible, she attempted to give an age and sex to specimens. Many specimens were too fragmentary for taxonomic identification and these were given morphological classifications (small mammal, medium mammal, etc.) when possible. The goal with this analysis was to identify foodways including processing methods, and to collect demographic information to address questions of animal husbandry practices. The following summarizes her work on the LA 20,000 materials.

From the specimens available, Opishinski identified 43 groups (such as frog, sheep/goat, or medium mammal) representing 27 taxa. There were small numbers of wild animals. These included a number of bird bones from several different taxa, fish, a small number of rabbits,

squirrels, a raccoon and deer. The majority of specimens (more than 90% of those that were taxonomically identified) come from domestic food taxa: sheep, sheep/goat, cattle, horse, pig, and chicken. Opishinski examined previous inventories and identifications performed on materials collected in the 1980s and 1990s. These included additional taxa not found in the existing specimens, including dogs and turkeys. These were not necessarily food, as turkeys were raised by the Pueblos for their feathers and dogs remains did not show butchery marks.

Sheep/goat dominates the assemblage. Opishinski's analysis of their age profile suggests that sheep/goats of all ages were being slaughtered, with a slight preference for young adults and older animals. This age profile suggests that animals were being raised for meat as well as secondary products, such as wool and milk. The butchery marks suggests both primary disarticulation and secondary butchery occurred at the site. The age profile and butchery methods suggest, not surprisingly, that the animals were being raised at the site.

Cattle is the second most numerous taxon by NISP. Few bones were sufficiently intact to allow aging, but those that were available suggests primarily juvenile animals, which were slaughtered at the prime age for meat. While the MNI for cattle is small, their large weight suggests that even a small number of animals would have produced significant quantities of meat. Some of the cattle bones showed stress pathologies indicating that the animals were used for heavy labor. In this agricultural setting such tasks may have included plowing or pulling heavy cart loads. Pigs were present but rarer in the assemblage. Both adult and fetal pig bones were identified suggesting that pigs were being raised at the site.

There were a significant number of horse bones in the assemblage. Some of the bones had butchery marks on them. While horse is not typical element of Spanish cuisine, indigenous people did eat them, and their large size would have produced a good deal of meat. Pathologies related to stress were also found on some of the horse bones suggesting the animals were accustomed to heavy labor and loads.

The small number of wild animals – deer, fish, birds, and small mammals – could represent famine foods. However, the fish would have been easily caught in the nearby Cienega Creek and rabbits and deer could have been part of an *encomienda* payment made by a Pueblo. The small frogs and other amphibians are likely commensals that lived in the wetlands near the site. These may provide further indication of a local environment that was wetter than it is today.

Table 6
Summary of the LA 20,000 Faunal Collection

Taxonomic ID	Common Name	Count	Weight (g)	MNI
Anura	Frog	2	<0.1	1
Bufo	Toad	1	0.2	1
Rana	True Frog	2	<0.1	1
Amphibia/Reptilia		3	<0.1	
Anatidae	Duck/Goose/Swan	1	0.2	1
cf. Anatidae	Duck/Goose/Swan	1	2.1	
Anserinae	Duck/Goose	2	2.1	1
cf. Phasianidae	Ground-living Birds	2	1.2	1
Galliformes	Ground-living Birds	2	1.9	2
<i>Gallus gallus</i>	Chicken	4	4.7	1
cf. <i>Gallus gallus</i>	Chicken	1	0.5	
Aves	Birds	248	22.7	2
Gastropod	Snail	1	<0.1	
Artiodactyl	Even-toed Mammals	13	35	1
<i>Bos taurus</i>	Cow	45	918.9	2
cf. <i>Bos taurus</i>	Cow	4	35.2	
Cervidae	Deer	1	19.1	1
cf. Cervidae	Deer	3	36.8	
<i>Equus caballus</i>	Horse	5	808.2	1
<i>Equus</i> sp.	Horse/Donkey/Mule	34	553.4	1
Leporidae sp.	Rabbit/Hare	2	<0.1	1
<i>Ovis/Capra</i>	Sheep/Goat	175	1213.5	6
cf. <i>Ovis/Capra</i>	Sheep/Goat	8	70.3	
cf. <i>Ovis aries</i>	Sheep	2	37.9	
<i>Procyonidae</i> sp.	Raccoon	1	0.5	1
cf. <i>Procyonidae</i>	Raccoon	1	0.9	
Rodentia	Rodent	2	0.3	1
<i>Sciuridae</i> sp.	Squirrel	2	0.6	
Suidae	Pig	4	19.4	
<i>Sus scrofa</i>	Domestic Pig	14	111.6	2
cf. <i>Sylvilagus</i>	Cottontail Rabbit	1	1.1	1
Large Mammalia		346	3363.9	
Medium Mammalia		1253	2450.6	
Small Mammalia		49	19.2	
Mammalia, unid.		6264	3581.5	
Cypriniforms	Ray-Finned Fish	4	0.6	1
Perciforms	Ray-Finned Fish	1	0.6	1
Osteichthyes	Fish	28	0.8	
Lacertilia	Lizard	1	<0.1	1
Vertebrate		298	36.7	
Fossil		1	20.2	
		8832	13372.4	

From Opishinski 2019.

Palynology

Pollen analysis was undertaken by Anya Gruber (2018) for her MA thesis. Her work focused on discerning activities across the site during its occupation, rather than changes in vegetation through time -- a more traditional focus of palynology. Gruber looked particularly at house floors and manure layers in and around the barn. She targeted the manure layers across the site to understand the agropastoral practices at LA 20,000. She also looked at floor surfaces in the house. Since pollen grains travel through animals' guts, pollen analysis can help us understand the types of plants that the animals were grazing on or being fed. Gruber found that pollen spectrum in various contexts across the site was a nearly even mix of trees/shrubs (arboreal) and herbs, with generally a small amount of domesticates, maize, wheat or barley (Figure 72). The arboreal pollen likely represents wind-blown pollen since it is fairly constant across the site. Gruber further examined the pollen spectrum looking at grasses of different types: wild grasses, wheat and maize. She found wheat pollen in several locations at the site: in the house and in the barn (Figure 73). Manure in the barn and nearby areas was predominantly wild grass, which would be expected in free range livestock, but there was also significant quantities of maize and smaller amounts of Old World cereals (wheat or barley), which may represent a strategy of feeding animals grain, or allowing them to stubble graze on harvested fields. The maize is interesting because Pueblo peoples' complained that colonists' livestock damaged their fields, and this may be one such indication. The large proportions of wild grasses in the house may come from grass matting or roofing or simply contemporaneous pollen rain.



Figure 72. Pollen spectrum across LA 20,000. From Gruber 2018.



Figure 73. Grass pollen spectrum divided into wild grasses, wheat or barley, and maize. From Gruber 2018.

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

Introduction

The preliminary work undertaken in 2011 and 2012 allowed us to examine the legacy collections from Snow and Stoller, create a complete, georeferenced map of their work and conduct a geophysical survey. These activities positioned us to conduct 3 months of targeted excavation and sample collection during 2015, 2016, and 2017.

We excavated a total of 32 excavation units, typically to sterile sediments. We collected over 6000 artifacts, primarily ceramics, 2800 animal bones, botanical, parasite, and geomorphological samples (Appendix D). The botanical samples run the gamut from macrobotanicals, flotation samples, pollen scatter and column samples, phytolith samples, and daub with plant impressions. We have created a Filemaker catalogue, which inventories these finds and links them to a georeferenced site map with up-to-date information about all of the excavations, including those by Snow and Stoller.

From the excavations and cataloguing of the 2015-2017 field seasons, we now better understand the results of the geophysical survey, the architectural patterns, and artifact distributions across the site. We have some grasp of the nature of the environment around LA 20,000, the types of deposits upon which the site was created, as well as the variety of building methods employed in constructing the ranch's structures. The data obtained give us a better insight into the layout of the ranch, including some areas that add size to the house and definition to the area surrounding the barn and corral. Analysis of artifacts and samples have allowed us to understand the meat component of the diet, basic ceramic types, some items of personal adornment, and animal husbandry and agricultural practices. Moreover, the opportunity to excavate and analyze the site's materials have afforded research opportunities to a number of graduate students from several universities across the country and Brazil. A number of graduate students have produced theses and given presentations on their research at such professional meetings as the Society for Historical Archaeology and the Society for American Archaeology (see Appendix B for a list of papers and presentations). The potential LA 20,000 has for understanding the 17th century is unparalleled by other known ranches, and that potential means that data collected during these three field seasons has already yielded information but will be useful for analysis in the future. Below we summarize the findings from this work, describe the ongoing work, and outline future possibilities.

Geophysical Anomalies

The geophysical survey generated mixed results. It produced a number of anomalies, some of which we explored to ground truth the findings. Excavation has allowed us to assess the utility of the various methods as well as help us determine which anomalies are most profitably tested. Many of the anomalies (3, 6-12; Figure 11) were old excavation units through adobe melt near rock-footed walls. Anomalies 13 and 14 were shallow basalt footed walls of the corrals. Anomaly 1 was a shallowly buried co-axial cable. There is no evidence of a cultural basis for Anomalies 4 and 5, adjacent to cobble surface south of the barn. These anomalies parallel the impoundment that had been dug out by a previous land owner, and it is likely that they are just a

reflection of the underlying, artificial land cut. Anomaly 2 was a corner of a wall found in EU 2016-B. This was by far the most interesting anomaly identified.

The geophysical survey had led us to generate hypotheses about building size and sequences, as well as the relationship between structures (such as the barn and the corral). A better understanding of the anomalies has allowed us to dismiss these hypotheses without additional excavation. Other anomalies have been more productive (the new wall associated with the house), and we are beginning to see both the limitations and advantages of these methods.

Architectural Patterns

Architectural materials and methods are varied within structures and among them. In general, the site and buildings are constructed on a hard dark brown silty surface. In some locations like 2015-G south of the house near the arroyo that surface has few if any gravels. In other locations, such as around the house and between the house and barn, that hard brown sediment contains more sands and gravels. In one instance, EU 2015-A, it appears that the room was constructed on a coarse red silty sand, which perhaps had eroded from the hillside above.

House

The house is constructed with cobble and small boulder basalt with an adobe superstructure. In some walls, such as those defined in EU 2016-B or Feature 52 (excavated by Snow and Stoller), the cobbles are smaller, rounded river cobbles, perhaps from the hillslope above the site or from the Cienega Creek. Other wall footings, such as those found in Feature 4 and exposed in 2015-I, are basalt boulders. The source of these boulders is likely the basalt flow on the opposite side of Cienega Creek, visible in Figure 2. Rarely, the adobe bricks appear to be placed on the ground surface. This is the case with the adobe platform (EU AY10F) and the interior wall in EU 2015-A (although perhaps these were simply not exposed). The footings for the interior walls of the house are, in general, a little smaller than the exterior wall footings. These seem to more frequently use rounded river cobbles (see Figure 27 showing internal wall in 2017-C complex).

Our excavation of rooms in the house (EU 2015-A, 2015 I) indicated single story with one roof, rather than multiple stories with ceilings between them. According to conventional wisdom, walls with a width of less than 1 meter support a single story. All of the walls at LA 20,000 are less than 1 meter wide. The nature of the sediments also suggest a single story. We have a single layer of daub with plant impressions, and layers of wall fall. The excavation of 2015-A made clear that the roof fell first (giving us the daub impressions) and then adobe bricks comprising the walls tumbled in over the top of the roof fall. Our excavations did not reveal pieces of vigas or latillas. Either these have merely decayed away or the beams were removed in the 17th or 18th centuries, before the walls collapsed.

Adobe bricks were common in the fill of rooms, and in some instances were in place on the walls. The excavation of EU 2015-I, the outer western wall, indicated that the outer walls were made of a single course of basalt boulders, a course or two of smaller rounded cobbles, with adobe mortar holding them together and placed on top of the footings adobe bricks were then placed over the layer of mortar. The orientation of bricks alternated perpendicular to the course below it.

Testing an anomaly revealed the foundation of a new wall associated with the house, one that had not been previously identified. This wall was constructed in a slightly different way

from the rest of the house, but was connected to it. Several possibilities exist for this area: perhaps it was a walled garden or it was roofed, like interior portions of the structure. Artifact densities in this area are not high, but we have found postholes, possibly a few burnt post fragments, and a likely roof-fall (as well as wall-fall) layer in this area suggesting that this new area was roofed.

The distribution of selenite shows clusters primarily around the house, which suggests it may have been used for windows (Figure 74). Selenite could also have been roasted and used as a component of whitewash. We have examples of wall fall with both red and white paint, whitewash, or plaster, which provides an indication of the decoration of some areas of the house (Figure 75). EU 2015-A and 2015-I both had flecks of whitewash or plaster on the wall and washing onto the floor (see Figures 14 and 16). From the locations of postholes in the 2017-C units, we can assume that timbers were placed in the corners of rooms to help support the roof. The postholes to the exterior of the wall identified in EU 2016-B, the newly identified area of the house, suggest that ramadas may have been constructed off the south side of the building.

Snow and Stoller identified a couple of thermal features, which we re-opened and documented. These include the corner fireplace in EU 2017-L and the horno (EU 2015-E), and we discovered a new thermal feature in EU 2017-C.5. This new thermal feature may suggest that the room was part of a kitchen. The area in 2017-C.5 suggests that portions of the house were remodeled so perhaps a kitchen was not this room's original use.

The floors in the 2017-C complex suggests that floors were constructed at the same elevation as the tops of the footings. In 2017-C.1, C.2, and C.5 the floors appeared to be more organic and numerous than the rooms to the south, which may have been toward the exterior of the house. The floor in EU 2015-A was quite thin. All of these floors appear to be less formal than the adobe brick floor found by Snow and Stoller (see Figure 7). Artifact densities on floors varied among the areas within the house. We recovered fewer artifacts in EU 2015-A than in the 2017-C complex, which suggests the use of space varied.

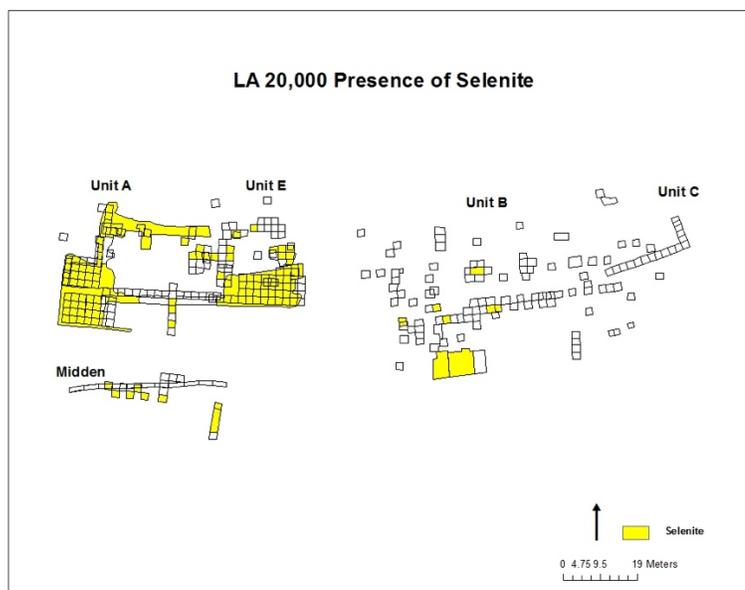


Figure 74. Distribution of selenite across the site.



Figure 75. Daub with red and white plaster or whitewash.

Barn

Despite geophysical anomalies that suggested otherwise, the corral and barn were built as a single unit using similar building methods. Like the house, the barn probably had walls with cobble footings, but it may have contained less adobe, and therefore likely had a wooden superstructure on at least a portion of the building. Adobe bricks are evident in EU 2016-C, near the juncture with the corral, and here the footings are less substantial than the corral wall. There is adobe on the footings at the south end of the barn in EU 2017-F. The paucity of bricks may be merely a result of post occupational processes. The barn is not deeply buried – rocks comprising the pillar are just visible on the surface – so it is clear the much of barn’s superstructure has been removed. While we have a good notion of the layout based on the locations of the footings, the shallow depth of most of the barn makes the superstructure more hypothetical. One location that points to the use of a wooden wall or jacal superstructure is in EU 2015-C, where a layer of burnt material (rather than adobe brick) covers the tops of the footings. The trench to the west of the wall in 2015-C also suggests a fence-line or palisade of some type.

Excavation between the house and barn allow us to increase the spatial extent of the animal husbandry activities west toward the house, as we found thick layers of animal dung between the house and barn. These deposits suggest wooden pens for livestock, located on the opposite side of the barn from the corral. The quantity of manure suggests that the pens either housed a sizable number of animals or a smaller number for a substantial length of time. The architecture in this area probably contained less rock footed adobe brick walls and more wooden pens, fences, and perhaps ramadas.

Excavation of areas connecting the barn and corral indicate that it was constructed as a unit, but other excavations in the barn indicate it likely contained a wider variety of walls and partitions for various activities. For example, some areas of the barn have significant layers of manure, such as EU 2015-C. Other areas, such as the area around the pillar (EU 2017-M) had much less manure. We have taken small sediment samples for phytolith, parasite and pollen analysis to help us identify the range of activities undertaken in this area and the range of animals housed there.

Corral

We did not spend much effort investigating the corral. This area was well-defined by Snow and Stoller, and the geophysical survey suggested that there were no internal divisions to

this structure. We did, however, investigate the anomalies to the east of the corral. In some places, these anomalies were evident by the basalt cobbles on the site surface, but at least in EU 2016-H, the basalt cobbles were buried. Snow and Stoller offered an intriguing suggestion that this area, with its alignments of basalt boulders, might have been a herder's quarters like that found at LA 591. Our investigation of the anomalies and the alignments suggests that these were a series of animal pens, rather than human domestic space. The lack of domestic artifacts and charcoal combined with the uniform stratigraphy across 10 meters is more consistent with open corrals rather than roofed rooms.

Extramural Areas

One of our goals was to explore the extramural space between the house and barn. The geophysical survey did not indicate additional structures, but we wanted to understand activities that might have occurred there, and we wanted to better define the extent of the midden located to the south of the house. We placed 6 excavation units in this area. While we did not find evidence for structures, our excavations in EU 2016-G showed a sharp discontinuity and an adjacent thick deposit of manure. That discontinuity may have been the edge of a wooden fence-line bordering an excavated pit. The pit was perhaps the adobe making area that may have subsequently been used to dispose of manure from the barn.

In an excavation unit nearby, EU 2016-N, we found deep midden deposits. These deposits contained layers of ash, pieces of ceramics, and animal bones. It also contained a small piece of galloon, and fragments of olive jar and porcelain. To the south of these two units is EU 2016-K. This unit had a substantial layer of manure and numerous artifacts, but not as numerous as in EU 2017-N. In both EU 2017-G and 2016-K were layers of burnt material. In 2017-K as in nearby 2015-C, there was evidence for two episodes of burning. There were deep cultural deposits in this area. The extramural area farther west, explored in EU 2016-P, was considerably more shallow and the density of artifacts was lower. However, there were interesting findings, including a lightweight brass chain that might have been for personal adornment.

Excavations of EU 2015-H and 2015-J, south of the house allowed us to better define the midden. We found distinctive stratified midden deposits in EU 2015-J. These provided significant quantities of faunal remains and samples for phytolith analysis. EU 2015-H did not have midden deposits, but the strata showed a steep dip from the north to the south, away from the house and down toward the midden. This unit showed that the midden deposits are more limited in their north-south extent.

These excavations expanded our understanding of the size and complexity of the house and barn, thus extending our understanding of the variety and sophistication of the architecture. These excavations generated a more complete picture of the architecture and site layout, and have allowed us to refine our notions of the methods used to build the site's structures and the size of the domestic structure. We have recovered data about the construction materials used, including adobe bricks, selenite, and wall footing stones made from local rocks and those brought from some distance. We generated new estimates of the size and layout of the house and barn. We now have a better notion of how much labor was involved in the construction of these features, as well as the basic style of the architecture. We have developed a basic model of the location of walls in the house and barn (Figure 76).



Figure 76. Hypothetical reconstruction of the floor plan at LA 20,000. Dashed lines are hypothesized walls, rather than verified walls. Red lines are exterior stone and adobe walls; yellow lines are interior stone and adobe walls; green lines are wooden walls or gates.

Chronology

The area between the barn and house is interesting because it appears to have two burn layers separated by a manure layer. Those burn layers also appear in EU 2105-C. Dennis Piechota took micro-geomorphological samples of this area to verify if both of those dark layers are truly burn layers – rather than a burn layer and a layer of thoroughly rotted plant materials, which also might look very dark. The presence of two burn layers would be very interesting. The assumption has been that the site was burned during the Pueblo Revolt (a single burning event) and not reoccupied. If there are two burning episodes, separated by at least some significant use for animals followed by another burn, was the site reoccupied? And if so, when? Or was the burning episode a deliberate attempt to get rid of manure? This question will be examined with the ongoing micromorphology analysis.

Economy, Foodways, and Connections with Pueblo Peoples

Analysis of some botanical samples, macrobotanical, flotation and phytolith, are still being undertaken. However, we do know from the preliminary work and palynology that a suite of indigenous and introduced plants are being consumed and most likely produced nearby. The

pollen analysis suggests that both maize (a New World plant) and wheat (an Old World plant) were being grown. Faunal analysis suggests that sheep or goats were being raised at the site, both for meat and for wool. The faunal analysis further suggests that horses, high status animals, were present as were cattle and pigs, although in smaller numbers. Fish were being consumed, but the animals that typically make up Pueblo diets like rabbits or deer were relatively few. Birds bones were fairly common among them, chickens.

The ceramics on the site are predominantly Pueblo-made – more than 99%. Such vast quantities suggest a great deal of interaction between the inhabitants of LA 20,000 and their Pueblo neighbors. The Pueblo ceramics come from a wide geographic spread, the Hopi area to the west, the Tewa Pueblos likely to the north, and the nearby Pueblos to the east and west. The vast majority of cooking or storage vessels were, therefore, produced by the Pueblos. Few are the majolicas, olive jars, or porcelains. But the presence of these exotic ceramics illustrate that the inhabitants were able to maintain connections to Mexico.

The lithic assemblage suggests connections with both Spanish and Pueblo ways of making a living. There are Spanish strike-a-lights and gunflints, as well as projectile points, obsidian drills and scrapers. All of these tools may have been made by the Spanish (see Moore 1992). However, there is much less knapping debris than might be expected from on-site production. It is therefore possible that indigenous laborers were bringing finished tools to LA 20,000 (Lindsay personal communication).

Ongoing Work

The size, complexity, and richness of the site means that analysis of the materials from LA 20,000 is continuing and that already excavated site materials will be useful for future projects. Several analyses are ongoing. All of the lithic materials (from the recent excavations as well as Snow and Stoller's) are currently being analyzed by Clint Lindsay as part of his MA thesis. This work should be completed shortly. Ivana Ivanova is working on the macrobotanical materials from around the site, again using materials both from the current excavations as well as those in the past. A more in-depth reconstruction of what the buildings at LA 20,000 once looked like, and the effort needed to construct this ranch is being undertaken in a MA thesis by Katherine Albert. This work may help us understand the need for labor at LA 20,000 and potentially a draw on indigenous laborers.

Of major significance is the work being done by University of California Santa Cruz student Danielle Huertas for her PhD dissertation. She is using petrographic analysis to source the origins of some of the glazeware ceramics. As these were probably made by some of the closest Pueblos such as San Marcos, Cochiti, or Tonque, they may represent direct interactions between LA 20,000 and the Pueblos, rather than down the line trade which may characterize the acquisition of the Hopi ceramics.

Analysis of phytoliths and additional macrobotanicals at the site is being undertaken by Emily Dawson of University of Texas. She is using these complementary data sources to get a better handle on the plant component of the diet and to help distinguish crop production at the ranch from merely food consumption.

Additional and Future Work

While the work that has been completed and ongoing analyses are contributing substantially to what is known about LA 20,000, there are still significant types of inquiry that would be useful. These fall into two types – analysis on existing materials and new excavations. With regard to existing materials, the ceramic collection is large and can yield significant information about the interactions between the inhabitants of LA 20,000 and the Pueblos. Huertas is looking at only a small segment of the ceramics, the glazewares, but additional analysis, including a refinement of the ceramic types and forms would be helpful. The size of the sherds is generally quite small, but petrographic analysis of a wider range of types might help us understand economic connections to the non-glaze producing Pueblo villages.

We know that meals were cooked and most were served in Pueblo vessels, and we know that the Pueblos created ceramics in new forms such as pitchers and soup plates in response to Spanish demands for them. A more systematic examination of the forms would help us understand the extent to which Spanish formatted serving wares were being used. Investigations by Pavao Zuckerman and Loren (2012) suggests that social status was not necessarily reflected in the types of foods that were eaten. Instead status was often expressed in the nature of the ceramics used for food presentation, with communal bowls reflecting indigenous foodways and soup plates and individual bowls reflective of high status Spanish consumption. Such an examination, especially coupled with spatial analysis of the site may help us understand how foodways were created in this novel social situation.

Some of the ceramics were heavily burnt, probably because they were used in cooking. Residues were found on some of these burnt ceramics and spectrographic analysis (ICPMS) may help us understand what ingredients were being used and how they combined into meals. Cordelia Snow has raised the possibility that wheat that was eaten at 17th-century ranches was likely consumed as tortillas or biscuits rather than leavened bread. The ways ingredients were being cooked has a bearing on our understanding of cross-cultural interactions with indigenous laborers and maintenance of traditional Spanish foodways.

We know that the vast majority of the meat consumed at the site was from livestock, but we do not have a good understanding of the animal husbandry. Various analyses of the manure may help us refine what we know about the utilization of space in the barn, whether it was used primarily for high status animals such as horses. Parasite or protein analysis may help us link species of animals to particular locations within the barn, and thus inform agro-pastoral practices.

Additional excavation at LA 20,000 would also be useful for understanding the site specifically and the nature of the 17th-century Spanish occupation more generally. Snow and Stoller found structures, including the torreon, opposite the arroyo from the main part of LA 20,000. Additional work there might reveal additional structures. A major gap in our knowledge is the location of the agricultural fields that supported the ranch. A search for acequias in the area might help us identify those locations, although such an exploration might well never be successful.

Re-opening Snow and Stoller's excavations was particularly useful for understanding what they had done and how much they had accomplished. Their examination of the corral and barn were fairly thorough and the extant notes provide fairly good documentation of their work. In general, we have a pretty good notion of the layout of the barn. Additional work there could be focused on understanding the use of different rooms within the structure. Thus far the artifacts have not been particularly helpful for identifying room function. However, environmental samples, such as pollen and phytoliths might help identify agricultural storage locations. Making

sure that we have artifacts from the floor contexts may also help identify activity areas. We also do not have a good understanding of the area to the west of the barn. Additional excavation here, might allow us to target the more ephemeral fence lines and wooden pens that may have existed along the western wall.

The house is much less understood. For the most part, the house was examined early in Snow and Stoller's project, and the extant notes, forms, and documentation of their work in this important structure are slim in places. From re-opening their excavation units, it became clear that in places, they excavated to the tops of walls and often stopped. This gave them a good idea of the major pieces of the house, but such a strategy meant that they frequently got fill rather than floor contexts. Thus artifacts and samples that related to the use of specific rooms and activity areas were not recovered. They occasionally missed some of the walls that subdivided or added to the house (such as the new area on the south side of the house) and more significantly, stopping above the floor did not allow them to find floor features, such as postholes, thresholds that we identified in the EU 2017-C complex, or pit thermal features or mealing bins that have been found at other 17th century ranches. These latter feature types may be important in understanding cross-cultural connections between Spanish and Pueblos (Trigg 2020). There are significant areas of the house that still have not been examined. EU 2015-A provided some indication about the layout of the western side of the house, but the central and western sides are still largely unknown. We know little about the newly discovered section of the house and how it might relate to the main house. We do not know if all of the structure had roofed rooms or if there was a patio or plaza. We do not know, for the most part, the sizes of rooms. We do not know, for the most part, the flow between rooms and how access to space was controlled or facilitated through openings and thresholds. Such information would be highly useful for understanding the relationship between activities or among household members, or the power dynamics that must have occurred in this space.

Unfortunately the remote sensing has proved of limited value in detecting walls within the domestic structure, apparently showing primarily walls that have already been excavated. Additional excavation would, no doubt, assist in answering significant questions about the site, in particular the domestic structure. However, understanding the house would require a great deal of excavation, and this would require a significant amount of labor since the northern part of the house is buried under large amounts of slope wash, adobe melt, and wall fall. Moreover, it is difficult to justify complete, or even widespread, excavation of the house since the site is not endangered, except perhaps for the southernmost portion of the barn. Ranches from this period are rare, and LA 20,000 provides an unparalleled opportunity to learn more about Spanish colonialism, but our desire to obtain more information is tempered with the feeling of obligation to preserve the site for future excavation and analysis.

REFERENCES CITED

- Edwards, K. W., & Trigg, H. B. (2016). Intersecting Landscapes: A Palynological Study of Pueblo, Spanish, and Anglo-American Land Use in New Mexico. *Historical Archaeology*, 50(1), 135-153.
- Gruber, A. (2018). Palynological Investigations of Agropastoralism and Ecological Change at LA 20,000, New Mexico. Master's Thesis (Department of Anthropology) University of Massachusetts Boston.
- Hammond, George P. and Rey, A. (editor and translator) (1953). Juan de Onate Colonizer of New Mexico 1595-1628. Coronado Cuarto Centennial Publications, 1540-1940, University of New Mexico, Albuquerque.
- Moore, J. L. (1992). Spanish Colonial Stone Tool Use. In Vierra, B. (ed.), Current Research on the Late Prehistory and Early History of New Mexico, New Mexico Archaeological Council, Albuquerque, pp. 239-43.
- Opishinski, A. (2019). Eat This in Remembrance: The Zooarchaeology of Secular and Religious Sites in 17th-Century New Mexico. Master's Thesis (Department of Anthropology), University of Massachusetts Boston.
- Pavao-Zuckerman, B. and Loren, D. D. (2012). Presentation is Everything: Foodways, Tablewares, and Colonial Identity at Presidio Los Adaes. *International Journal of Historical Archaeology* 16(1):199-226.
- Snow, David H. (nd). Field Excavations at LA 20,000 1980-1994. Manuscript on file at El Rancho de las Golondrinas, Santa Fe, New Mexico.
- Stoller, Marianne and Snow, D. (nd). Proposal submitted to the National Endowment for the Humanities. Manuscript on file at El Rancho de las Golondrinas, Santa Fe, New Mexico.
- Sun, Ming-Shan, and Brewster Baldwin. (1958). *Volcanic Rocks of the Cienega Area: Santa Fe County, New Mexico*. State Bureau of Mines and Mineral Resources.
- Thomas, W. J., Bower, N. W., Kantner, J. W., Stoller, M. L., & Snow, D. H. (1992). An X-ray fluorescence-pattern recognition analysis of pottery from an early historic Hispanic settlement near Santa Fe, New Mexico. *Historical Archaeology*, 26(2), 24-36.
- Trigg, H. B. (1999). *The Economy of Early Colonial New Mexico, AD 1598-1680: An Investigation of Social Structure and Human Agency Using Archaeological and Documentary Data*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Michigan, Ann Arbor.
- Trigg, H. (2004). Food choice and social identity in early colonial New Mexico. *Journal of the Southwest*, 223-252.

Trigg, H. B. (2005). *From Household to Empire: Society and Economy in Early Colonial New Mexico*. University of Arizona Press.

Trigg, H. B. (2020). Spanish-Pueblo Interactions in New Mexico's 17th-Century Spanish Households: Negotiations of Knowledge and Power in Practice. *International Journal of Historical Archaeology*.

APPENDICES

Appendix A. Geophysical Survey and Map Resolution

A Report by John Steinberg

The goal of the 2013 NSF funded work was to revitalize the archaeological records for a pre-pueblo revolt Spanish hacienda in La Cienega, NM, designated LA20000. This archaeological site, owned by El Rancho de las Golondrinas living history museum, is one of the most important early colonial Spanish sites in New Mexico. It was excavated in the 1980's and 90's and its records are in disarray. Our goal was to rectify these records and put them into context.

The work was successful. Most of the records were put into some context. Clearly the central parts of the structures have had substantial excavation. However, much of the ceramics remain unanalyzed and the faunal collection is still missing. The archaeogeophysics suggests a series of outer walls and features that have never been investigated. These features should be confirmed because if real, they would substantially change our understanding of the layout of the site.

Results

Georeference previous maps

The first goal was to georeference the group of archaeological maps of LA20000. The site seems to have several datums for mapping, and there was a grid system, which was based on true north (12° west of magnetic north). However, the grid was never used, or even mentioned, by the excavators. Rather, a series of ad hoc grids were created by the excavators as necessary. There is a series of base maps of the entire site which shows various archaeological features, grid systems and excavations. There is also a group of excavator maps from numerous notebooks that complement these base maps. All of these maps, except for the most schematic were georeferenced in order to create a comprehensive site map of LA 20000.

For georeferencing the maps and geophysical work, 1633 points were shot in using a Topcon robotic total station. These points were based on 3 GPS points. At each of these three GPS points-which were selected for having good views of the sky-over 1000 individual readings over several hours were taken. These three points were then cross checked with each other and adjusted with the total station. Two additional benchmarks were shot in.

The site base maps are a complex series. There is one basic archaeological site map drawn in 1989 by Smith Williamson and a lot survey map made in 1991 by Southwest Mountain Surveys, which also shows some archaeological features. The 89 Smith Williamson map suggests that there are 7 datums (5 pipes or rebar, and a utility pole and gas meter). The 91 Southwest Mountain map suggests that there were 4 new points set at that time (with capped rebar), 1 previously set capped rebar, 3 previously set rebar points, as well as a utility pole.

During our field survey we identified 18 datum like objects, of which 6 could be associated with the 89 Smith Williamson map and 6 associated with the 91 Southwest Mountain map. While these recovered datums should be more than enough to georeference the base maps, there are some important caveats to the georeferencing. Most importantly, there is a second rebar 15 cm east of the capped rebar which we assume is the described datum. We opted to associate the capped rebar with the site datum simply because it was capped.

The 89 Smith Williamson map-which originally showed the 1982-1989 excavations-was continually

used as a base site map and updated. The eight Smith Williamson map updates were somewhat progressive. That is, archaeological features were generally added to maps. However, they were not completely progressive. There was no single map that contained all features, excavation units, and modern structures. The updates were made to various versions from different copies, which sometimes distorted the site as a whole. Thus the most original map (89-4) is not a perfect copy of the most complex map (89-2). The best order we can determine, starting at the earliest is 4, 3, 9, 1, 7, 6, and finally 2, with Map 10 being more schematic. Each Smith Williamson map update was georeferenced, based on the datums and the calculated grid points. The shapefiles for the archaeological features and excavations for each Smith Williamson map update were then created and compared to create a universal site base map. The site was divided into 5 units by the excavators (A, B, C, D, & E). In general map updates 3 & 4 show new excavations in Unit A, map 9 shows new excavations in Unit B, map 1 shows new excavations in Unit C, map 7 shows new excavations in Unit D, map 6 shows new excavations in the midden, and map 2 shows new excavations in Unit E.

Of the excavator maps produced over the years of excavation, 36 excavator notebook maps were georeferenced: 14 from Unit A, 16 from Unit B, 4 from Unit C, 1 each from Unit D & E. Units C & D have relatively few excavation units and Units A & E are perhaps the most poorly documented. In Unit A there are several overlapping grids that were used in different years. In Unit E several excavations overlap with other, probably earlier excavations.

The comprehensive site map we created has 401 specific excavation units. Only 13 of those units are without specific designations, mostly open area excavations. Only a few locations could not be confirmed, mostly in Unit E. On the whole, most of the units' locations were able to be corrected, either with reference to maps or with reference to the geophysical results.

Archaeogeophysical Survey

The second major goal was a comprehensive archaeogeophysical survey of LA20000. We used two different methods, an electromagnetic conductivity meter and a ground penetrating radar unit. Because of a fence line, the geophysical survey was divided into two, non-overlapping grids: a larger southern portion, where the transects were north-south, and a smaller northern portion where the transects were east-west.

Overall, conditions at LA20000 are very good and a fine-grained geophysical resolution of archaeological features was obtained. From the geophysical results, we identified 23 specific anomalies, which significantly add to the overall picture of LA20K. In general these anomalies expand the perimeter of the site.

A geophysical survey grid was established based on the GPS points. After an initial GPR run metal trash was removed. There are 5 backdirt piles still visible. These piles seem to cause minor changes in the Q1 Q2 and IP1 and IP2. The backdirt piles do not seem to affect the Q3, IP3 or the GPR at all.

Many of the excavated and previously identified features present as anomalies in both the EM and GPR. Very few of the anomalies that were identified in the present survey present in both methods. Because the previous excavators left standing features intact, and then backfilled (or in some cases did not backfill) the contrasts between the standing excavated features and the backfilled soils and sediments may be stronger than if those standing features were not excavated. The major exception is Anomaly 6, which is very distinct in the GPR (especially in the 30 cm bgs slice) and shows up as a low in the IP2

The CMD shows some substantial line noise. The line noise is more substantial in the shorter receiver-antenna separations (i.e., Q1, IP1, Q2, and IP2) and less in the longer separations (eg, Q3, IP3). Nonetheless, line noise appears on all images. The main line noise happened between survey days, where conditions changed. The CMD survey took three days and there are three major beaks in the north-south survey: at East line 397127, at East line 397150, and at east line 397213. While anomalies can be traced through this line noise, A11 and A12 may appear as separate anomalies because of the line break at 397213. Interestingly, in the Northern east-west survey area, there is a substantial, but reversed, change that corresponds with the line break at 397150.

In IP3, basalt walls present as a high, in IP2 they seem to present as lows or highs surrounded by distinct and sharp lows and IP 1 presents cobble walls as distinct lows. The Q readings do not show any distinct archaeological anomalies, but relative highs suggest areas of intense human or animal activity.

In general the IP is the most distinct method and the IP3 the clearest application of the method. IP3 seems to be particularly sensitive to walls made with basalt, both buried and exposed on the surface. High readings (e.g., 1.4-1.6 ppt) correlate very well with previously excavated basalt or basalt footed walls. Strong reflectors from GPR slices ranging from 27-33 cm bgs also correlate with already excavated features particularly those with basalt.

The GPR, like the CMD, clearly identifies many of the already excavated features. For many of the features, the GPR can provide some depth estimate. The GPR does not suggest that there are many features that overlap, hinting that there are no preserved rebuilding events. Both the IP3 map and the GPR 30 cm bgs slice present a few of the adobe only walls excavated. For the IP3 the adobe only walls present as lows (0.8 ppt) while for the GPR, as weak reflectors.

Unit A - Area 1 Midden

The midden has some very dense deposits. The highest ceramic counts were from P7 (326 ceramics from 50-60 cm bgs) P3 (310 ceramics) P5 (253 ceramics from 45-50 cm bgs) and in the low 200's from individual layers in L, M and I.

The midden is not particularly distinct in the geophysics, probably because of the metal gas pipe that runs through it, making more subtle contrasts difficult to detect. IP3 may show the 1m deep midden as low (0.3 ppt) bordered by a higher (0.7 ppt) area. The 20 cm deep outer midden ring is drawn based on very rough excavator's notes. The main geophysical anomaly is the Modern metal gas pipe (and the reason for the sites' discovery). Evident on Q1 as high (13 mS/m), Q2 as low (-4mS/m), and Q3 as low (10 mS/m). The pipe is a distinct high on IP1(-.02 ppt) indistinct on IP2, and high in the east (1.5 ppt) and low in the west (0.4 ppt) and indistinct in the middle. As the instrument-pipe encounter angle was probably consistent over the area, the swing in readings is probably a function of the depth of the pipe. The GPR readings are consistent with this interpretation: the pipe appears in the west in the 51 cm bgs slice and appears in the east in the 27 cm bgs slice.

The midden was excavated at four different times: most of the units were put in during the process of site exploration in 1980 and most of these units followed the gas line. The exact location of these units is approximate, but has been fitted to follow the gas line. Test pits 99, 100 & 101 were also excavated and indentations can still be seen on the surface, which were mapped and those indentations were used to place those units 1.2 m south of their original mapped location. Test pits 99, 100, and 101 were placed under the mobile home, whose cement entrance pad is still visible. In 1990 the

midden was excavated again, this time as an extension of the excavation of feature 4 (units M, M1, M2 N, O, & P). Finally in 1995 the midden was again explored (as Feature 1) with units O4, O6, O8, P3, P5 & P7. The O units were excavated into the already excavated gas pipe trench. The excavation corner nails from all of the 1995 units were still in place and were identified with a metal detector. The excavation corner nails can be seen in Q2 & Q3. In the Q2 the corner nails are lows (-5 mS/m) and the double hits are a remnant of the CMD unit encountering the nail at the units' front and back. In these double hits, the southern anomaly is very close to the actual corner nail location. In Q3 the corner nails are lows (-4 mS/m) and are offset 50cm to the south of the actual nails.

One of the most distinct and dynamic anomalies (A1) runs around the midden to the north and east of the midden. A1 is most visible in IP3 as a distinct high (1.5 ppt) and appears to parallel the east-west southernmost wall of Area A Feature 52 (Element 2) before curving to the south around the midden. A1 is so distinct that there is a possibility that it is a modern pipe. If not modern, but part of the Spanish Hacienda, the exploration of this anomaly will be critical to understanding the overall layout of the site. A3, a weak high (1.3 ppt) anomaly to the east of the midden, may be related to A1. A1, A2, A3 & A9 may be related to the road, parking area, and berm shown on the original base map (4). There may be a hint of the A1 In the Q3 map where A1 intercepts the pipe trench in test pit F. However, the records of the excavation of test pit F (or any of the nearby test pits/trench excavations do not suggest anything but midden deposits.

Unit A & E - Area 2 - Adobe Complex

The Adobe structure is the most complex area, both in terms of its excavation and the features. Geophysically, the most distinct area is the adobe wall with a basalt base that surrounds Area A, Feature 52 (Elements 1, 2, 3, & 4). This is most distinct in IP3 (as a high) IP 2 (also high) and IP1 as a low. Feature 4 (Element 13 & 14) is also quite distinct in the IP3 and the GPR (particularly the 30 cm bgs slice). The East wall of feature 64 is also very distinct in both the IP and the GPR. The horno (Feature 60 - element 16) would have been more distinct, if not on the fence line. Nonetheless, the horno is visible in the Q, IP and GPR. Many of the northern features are recorded as being Adobe only and they do not seem to present well in any of the geophysical methods or techniques.

Area 2 was intensively excavated; therefore there are relatively few anomalies that were not investigated. However, not all of the units of the complex and overlapping grid of this area may have been excavated. This may be the case with A23, a distinct high IP area just to the east of Feature 52. Feature 52 in the base maps is drawn with excavation A1 (as opposed to anomaly A1) in the NW corner and E4 in the southwest. However several students notes and drawings strongly suggest that excavation A1 was in the SW corner of the inside of Feature 52 and the units, each a meter, continued to the outside of Feature 52 into the G squares. There are records that G1 was excavated in 1988 but no notion that a substantial basalt cobble feature was identified during that excavation. However the IP (1, 2, & 3) does suggest a substantial anomaly (A23) running north-south, with the same orientation and layout as other walls in Feature 52. To the west of Feature 53 and 50 is A17 a weak high in IP3. Another IP high, with the same orientation as the walls of Feature 52 is A2, most distinct as a high in IP3 and a low in IP 1 A2 may also be related to A1 and the midden described above. Excavations at A2 have the potential to connect two complex sets of features: 52 and 64 into a coherent structure.

Unit B - Area 3 - Barn

There Is an 8 m gap between the eastern most excavations in Area 2 and the western most excavations of Area 3. In this area are several backdirt piles. A 3-cm thick deposit of charred metal and other household deposits, probably from the demolition of the trailer park, was partially removed

before geophysical survey. Nonetheless, the geophysics confirm that this gap does not seem to contain any substantial buried architecture or features.

According to Snow (1999), much of Area 3 had been cleared with a front-end loader, exposing a number of stub ends of basalt footings. It is unknown how much of the surface was removed mechanically, but this removal might explain why Area 3 has some of the most distinct geophysical anomalies, as they are closer to the current surface. Most of the geophysical anomalies have been partially excavated. Excavated features were not grouped into feature groups in Area 3. The highest ceramic counts seem to have come from TP 8 & 13, associated with Elements 55,56,57,& 58 with individual levels having ceramic counts in the 70's and 80's.

The geophysics suggests that there are three parallel north-south walls in the west part of Area 3. All of these walls were encountered in various excavations, but the geophysical readings, particularly, IP3 suggest that they are coherent. The space between the three walls is about the same (4.7m) and most of the excavations suggest that they are a basalt cobble base with adobe on top. The western most wall consists of Elements 41, 42, 43, and 44 and probably 40. The middle wall consists of elements 45, 46, 50, 52 & 55. Anomalies A19, A7, & A22 suggest that this center wall is a coherent structure. The west and center wall may be tied together by A7, best seen in the GPR (33 cm bgs slice). The geophysics, particularly IP3 suggest that Element 57 is not much larger than the area excavated. A5 suggest that element 60 is substantially larger than the area excavated (Unit B TP 1). The eastern most wall of the three, defined by elements 60 & 63 is less clear, but A4 suggests that it might be related to Element 65. A20 and A21 hint that there might be a fourth north-south running wall. A perpendicular wall defined by Elements 64, 70, 71, 72, 77, 79, 82, & 83 presents as a coherent medium low (1 ppt) against a lower background (0.8 ppt) in IP3. Six meters south of this east wall, A6 might represent a parallel east-west running wall, that is best seen in the GPR (39 cm bgs slice) and as a low in IP3. A9, best seen in GPR slice 30 cm bgs, may be a continuation of this structure. While A6 & A9 could be a geological strata eroding out of the wash, if they are indeed archaeological features, it would be a 42 m long wall and would substantially extend the perimeter of the site into an unexplored area. The western part of A6, A8 & A18 suggest a parallel north-south running wall 2m west of the western corral wall (elements 87, 86, 85, 84, 95, 94, & 93) The strongest anomalies in Area 3 are the three excavated pillars or chimneys (elements 67, 72, 81). These elements are substantially higher than most other anomalies. There might be a fourth, unnamed pillar where Unit B Excavation 67 was performed, but the excavators did not note a pillar.

Unit C & D Area 4 - Corral

The geophysics confirms the original excavator's conclusion that there is no internal structure within the corral walls. The corral walls (elements 87, 86, 85, 84, 95, 94, 93, 92, 91, 90, 89, & 88) are clearly visible in IP1, IP2 and especially IP3, as well as many of the GPR slices (particularly 30 & 33 cm bgs).

In an early test pit to the east of the eastern corral wall (labeled 102.00, after its local datum) a basalt cobble wall foundation was identified (element 96). The geophysics, particularly the IP3 and to a lesser extent GPR slice 33 bgs, suggest that this wall may be connected to the corral. A10, A11, A12, A13, A14, A15, & A16 suggest an relatively unexplored structure. The basalt cobbles associated with these anomalies that are visible on the surface have been mapped, but the strength of the high IP3 anomalies suggest that there are additional subsurface cobbles that may form a structure that should be further investigated.

Conclusion

The three goals: georeference the excavators maps, conduct an intense geophysical survey, and collate artifact records have been accomplished, as far as the existing information will allow. The results of this work suggest that the original excavators have investigated much of the interior of the site, but may have missed significant portions of the outside of the site that would allow this important site to be placed in its critical larger context.

Appendix B: Theses and Presentations on LA 20,000 and related materials.

Theses

Brinkman, Adam

2019 *Comales and Colonialism: An Analysis of Cuisine and Ceramics on a 17th-Century New Mexican Estancia*. MA Thesis (Historical Archaeology), University of Massachusetts Boston.

Connick, C.

2018 *An Analysis of Form and Function of Ceramic Rim Sherds from LA 20,000, a 17th Century Estancia Outside Santa Fe, New Mexico*. MA Thesis (Historical Archaeology), University of Massachusetts Boston.

Edwards, Kyle

2015 *Environmental dimensions of colonial settlement: A palynological investigation of La Cienega, New Mexico*. MA Thesis (Historical Archaeology), University of Massachusetts Boston.

Gruber, Anya

2018 *Palynological Investigations of Agropastoralism and Ecological Change at LA 20,000, New Mexico*. MA Thesis (Historical Archaeology), University of Massachusetts Boston.

Hallinan, Stephanie

2019 *Exploring the Social and Environmental Conditions of 17th-Century Estancias in New Mexico*. MA Thesis (Historical Archaeology), University of Massachusetts Boston.

Opishinski, Ana C.

2019 *Eat This in Remembrance: The Zooarchaeology of Secular and Religious Sites in 17th-century New Mexico*. MA Thesis (Historical Archaeology), University of Massachusetts Boston.

Presentations

Brinkman, Adam

2017 Comales and Colonialism - Identifying Colonial Inequality through a Spatial Analysis of Foodways on a Seventeenth Century New Mexican Spanish Estancia. Paper presented at the Conference on Historical and Underwater Archaeology. January 3-6, 2017. Fort Worth, TX.

2018 Laboring along the Rio Grande: Contextualizing Labor of the Spanish Early Colonial Period of New Mexico. Paper presented at the Conference on Historical and Underwater Archaeology. January 4-8, 2018. New Orleans, LA.

Brinkman, Adam

2018 Ollas and Inequality: Reflections on Space, Ceramics, and Power Relationships at the Sanchez Site. Poster Presented at the 83rd Annual Meeting of the Society for American Archaeology, April 11-April 15, 2018, Washington, DC.

Edwards, Kyle

2018 Evaluating the Environmental Impacts of Colonial Settlement: A Palynological Study of La Cienega, New Mexico. Poster Presented at the 83rd Annual Meeting of the Society for American Archaeology, April 11-April 15, 2018, Washington, DC.

Gruber, Anya

2018 A Palynological Approach to Colonial Agro-Pastoral Activities at LA 20,000, New Mexico. Poster Presented at the 83rd Annual Meeting of the Society for American Archaeology, April 11-April 15, 2018, Washington, DC.

Huerta, Danielle, Heather Trigg and Judith Habicht-Mauche

2018 Analysis of Rio Grande Glaze Ware Glaze F Pottery from LA 20,000 Using Petrographic and Chemical Composition Techniques. Poster Presented at the 83rd Annual Meeting of the Society for American Archaeology, April 11-April 15, 2018, Washington, DC.

Ivanova, Ivana

2018 New Mexican Cuisine as Ethnogenesis. Poster Presented at the 83rd Annual Meeting of the Society for American Archaeology, April 11-April 15, 2018, Washington, DC.

Opishinski, Ana

2018 The Zooarchaeology of LA 20,000. Poster Presented at the 83rd Annual Meeting of the Society for American Archaeology, April 11-April 15, 2018, Washington, DC.

Trigg, Heather and Stephanie Hallinan

2015 Investigating Activities at a 17th Century Spanish Colonial Ranch in New Mexico. Poster presented at the 2015 Meeting of the Society for Historical Archaeology. January 6-11, 2015. Seattle, WA.

Trigg, Heather and Christina Spellman

2018 Space and Architecture at LA 20,000, a 17th Century Spanish Ranch. Poster Presented at the 83rd Annual Meeting of the Society for American Archaeology, April 11-April 15, 2018, Washington, DC.

Appendix C. Maps with Snow and Stoller's Excavation Units Labeled

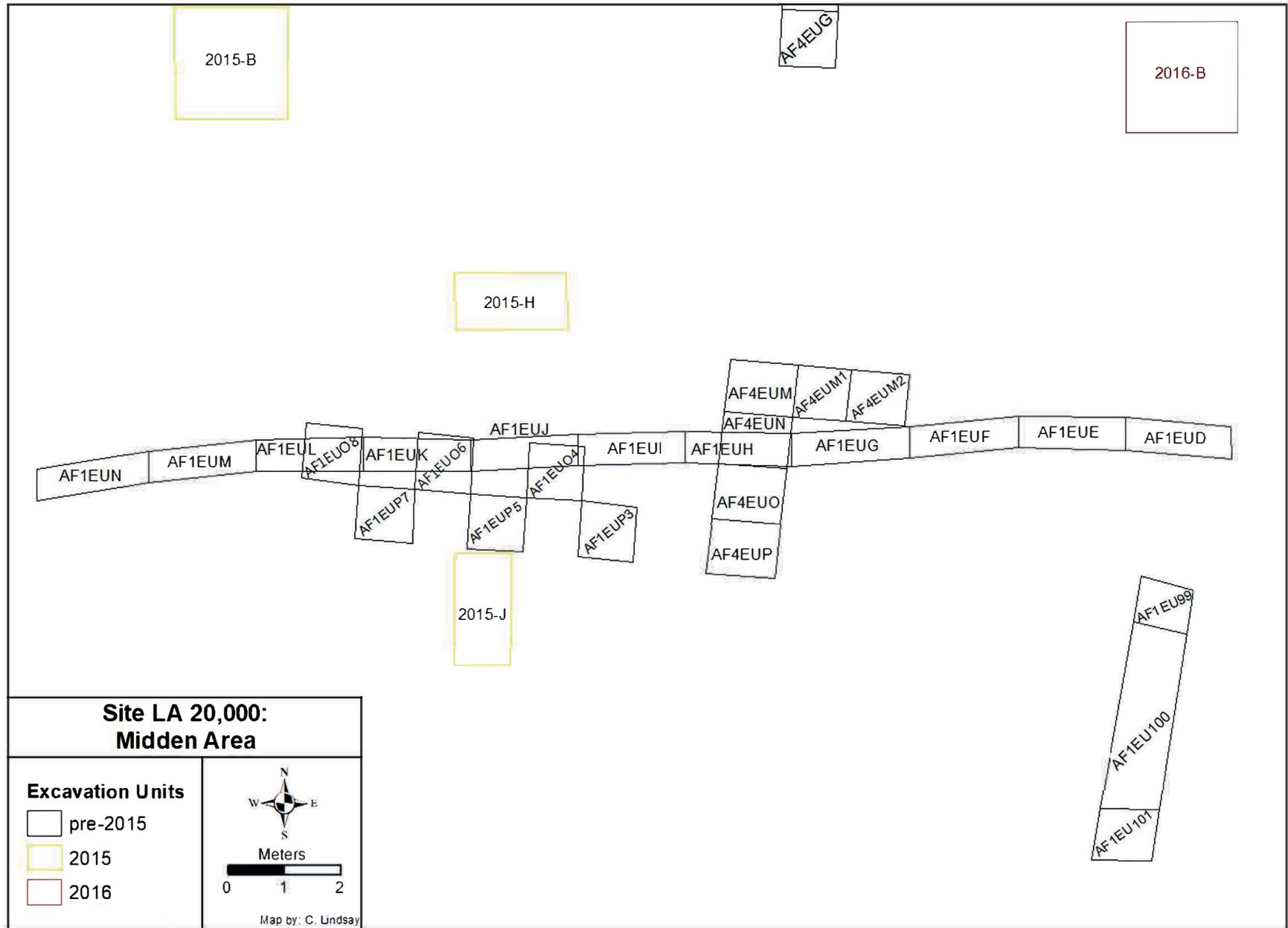


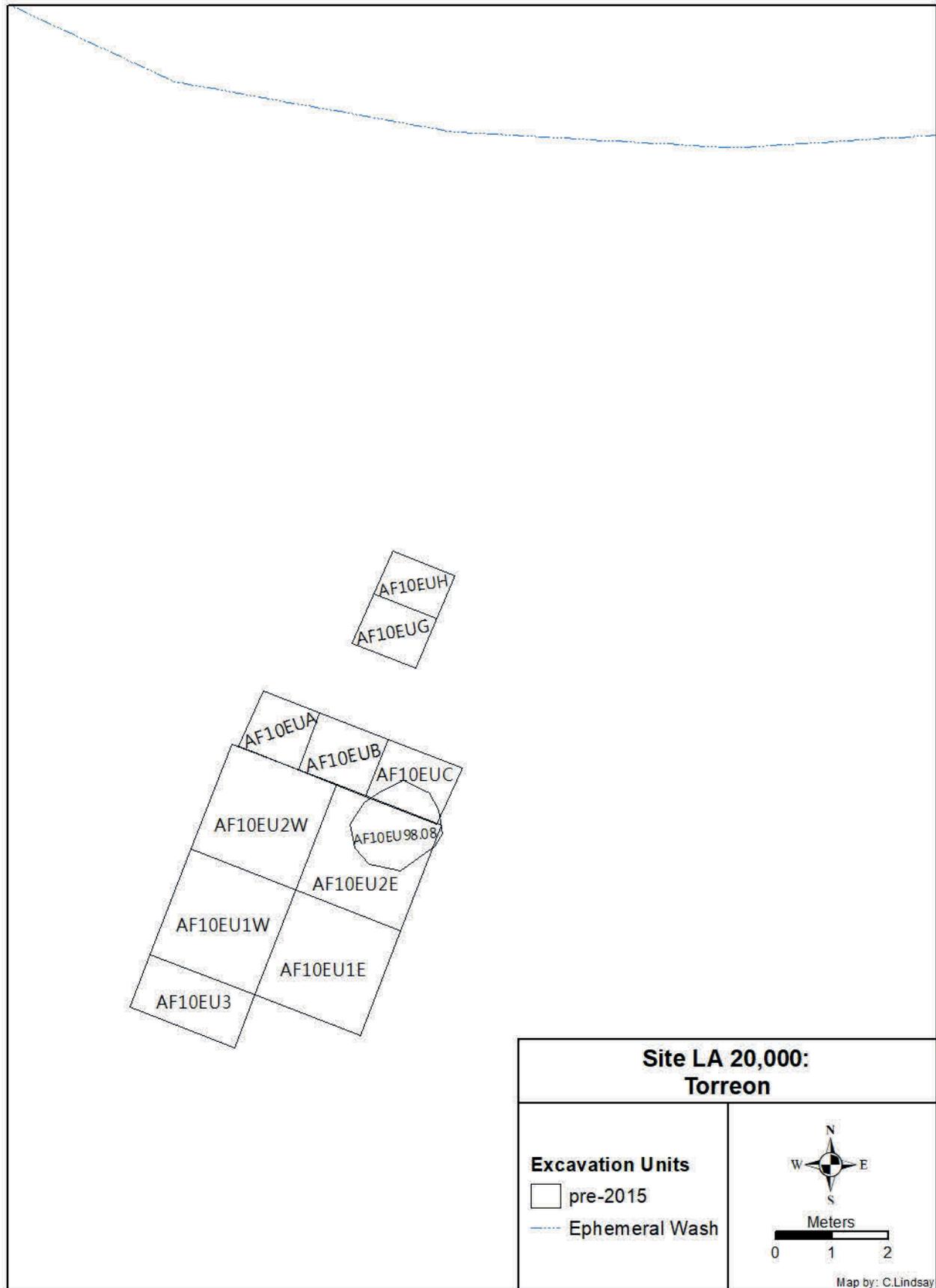
**Site LA20,000:
Units B, C, D, and E-east**

Excavation Units	
	pre-2015
	2015
	2016
	2017
	Feature Areas
	Fenceline
	Ephemeral Wash

Meters

Map by: CCLM

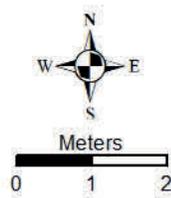




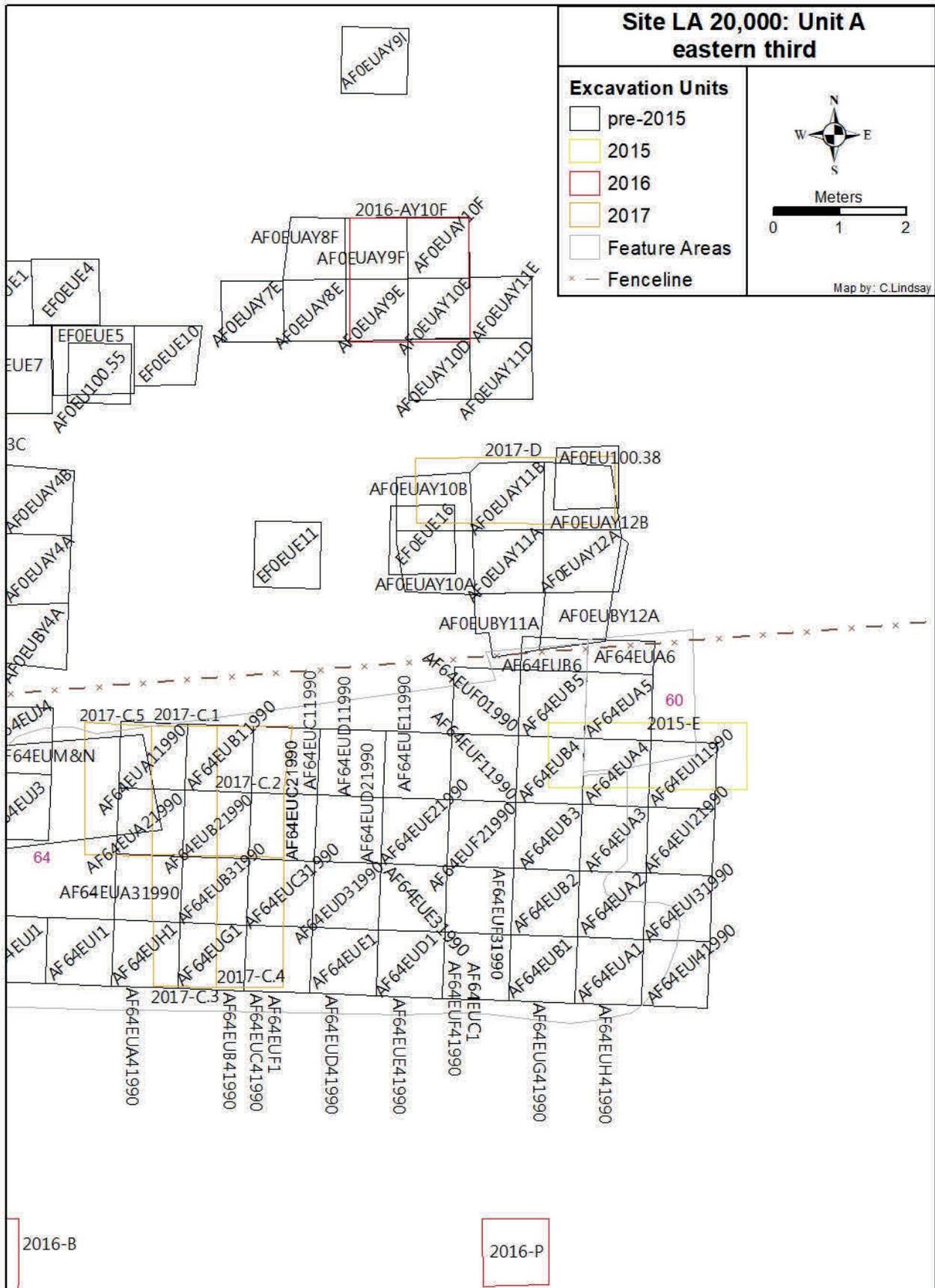
**Site LA 20,000:
Torreon**

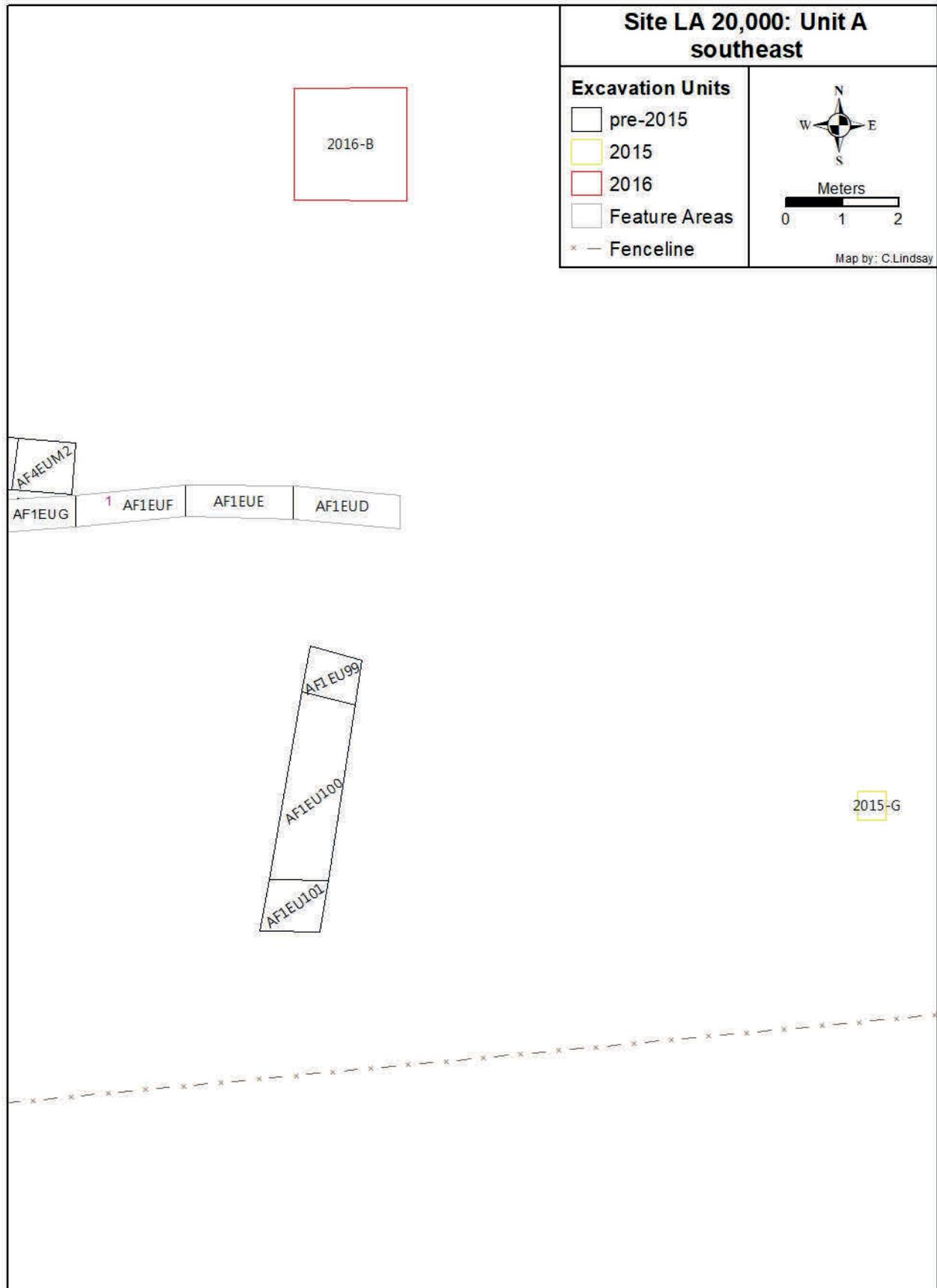
Excavation Units

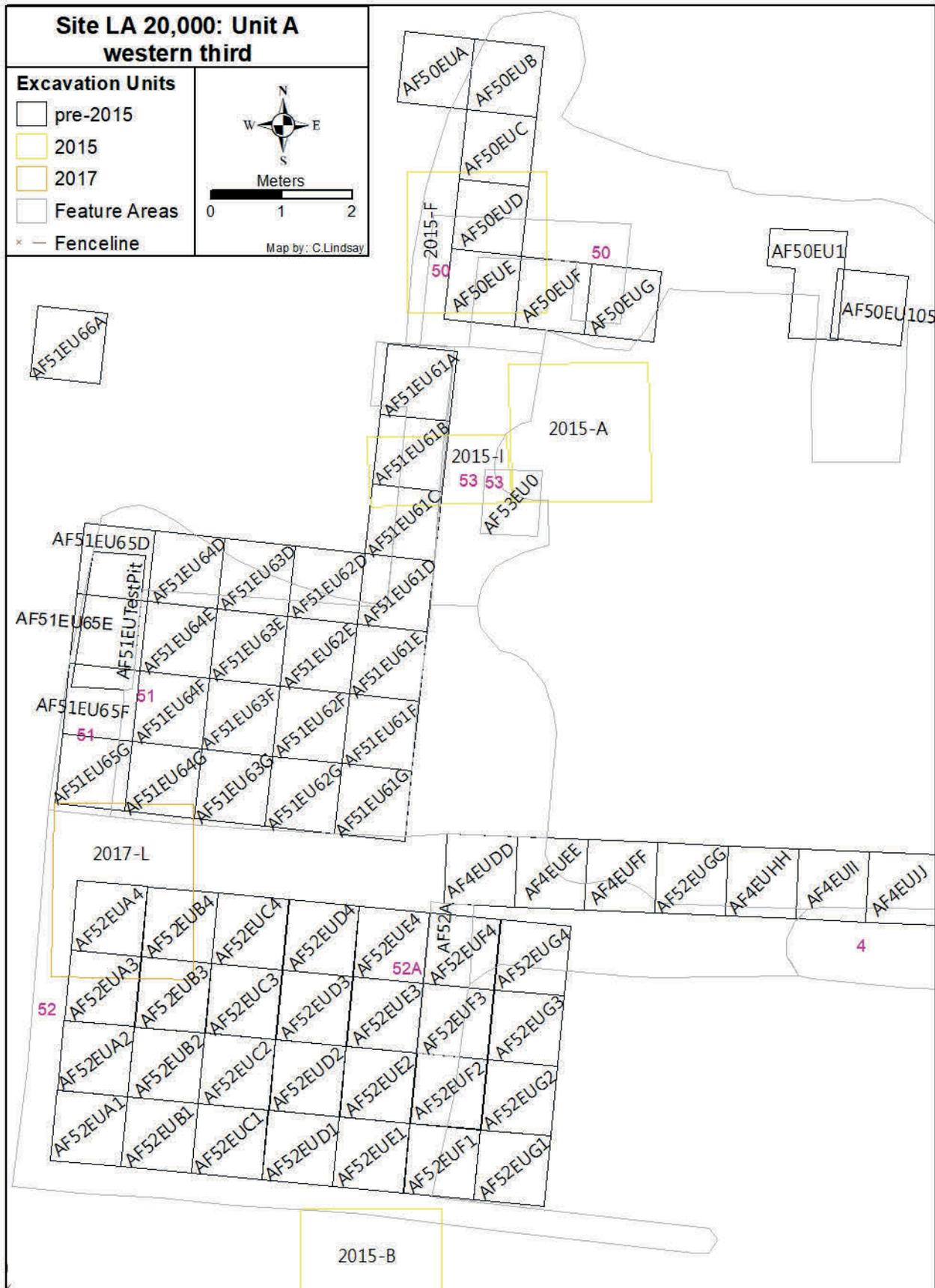
- pre-2015
- Ephemeral Wash

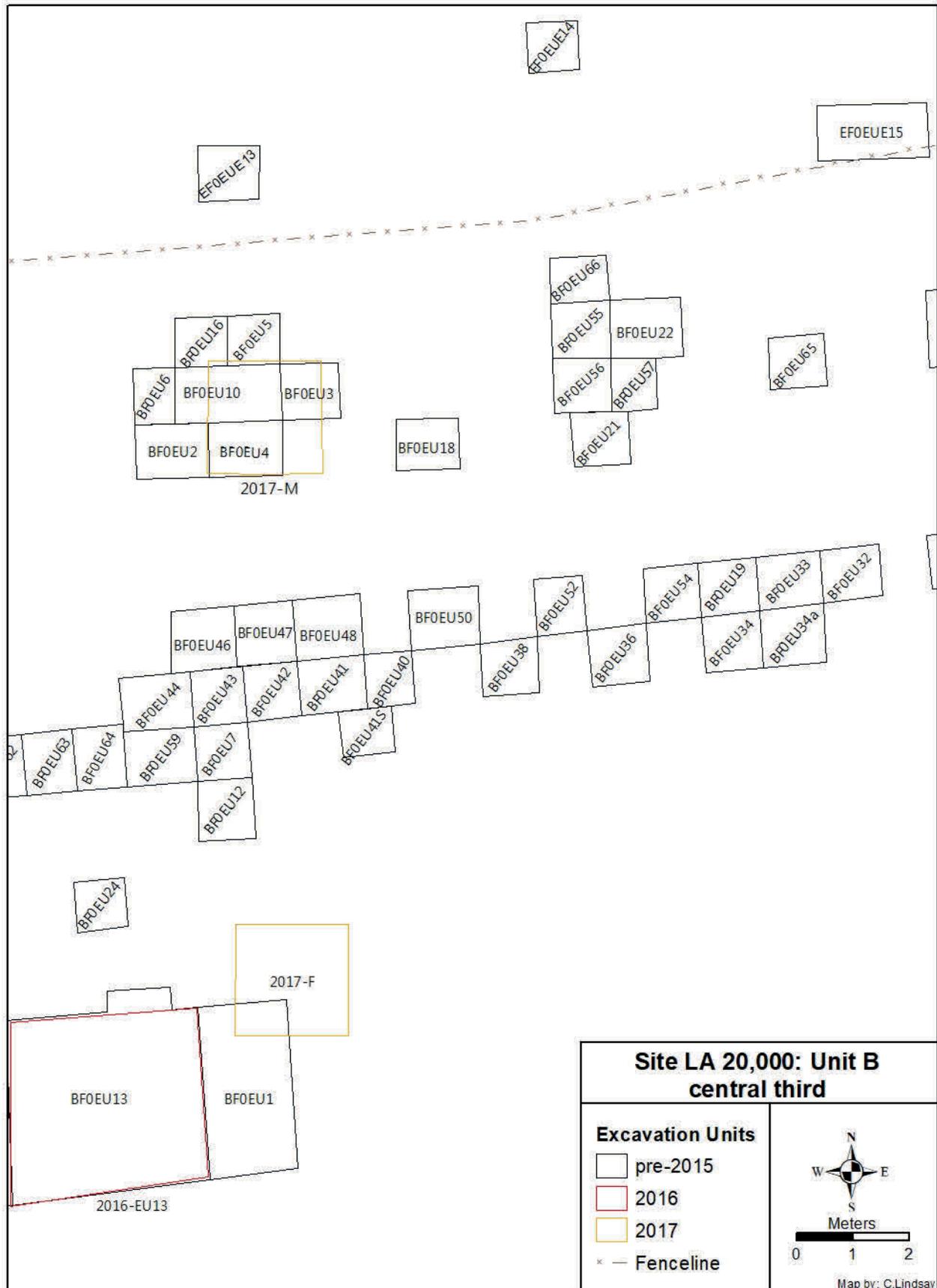


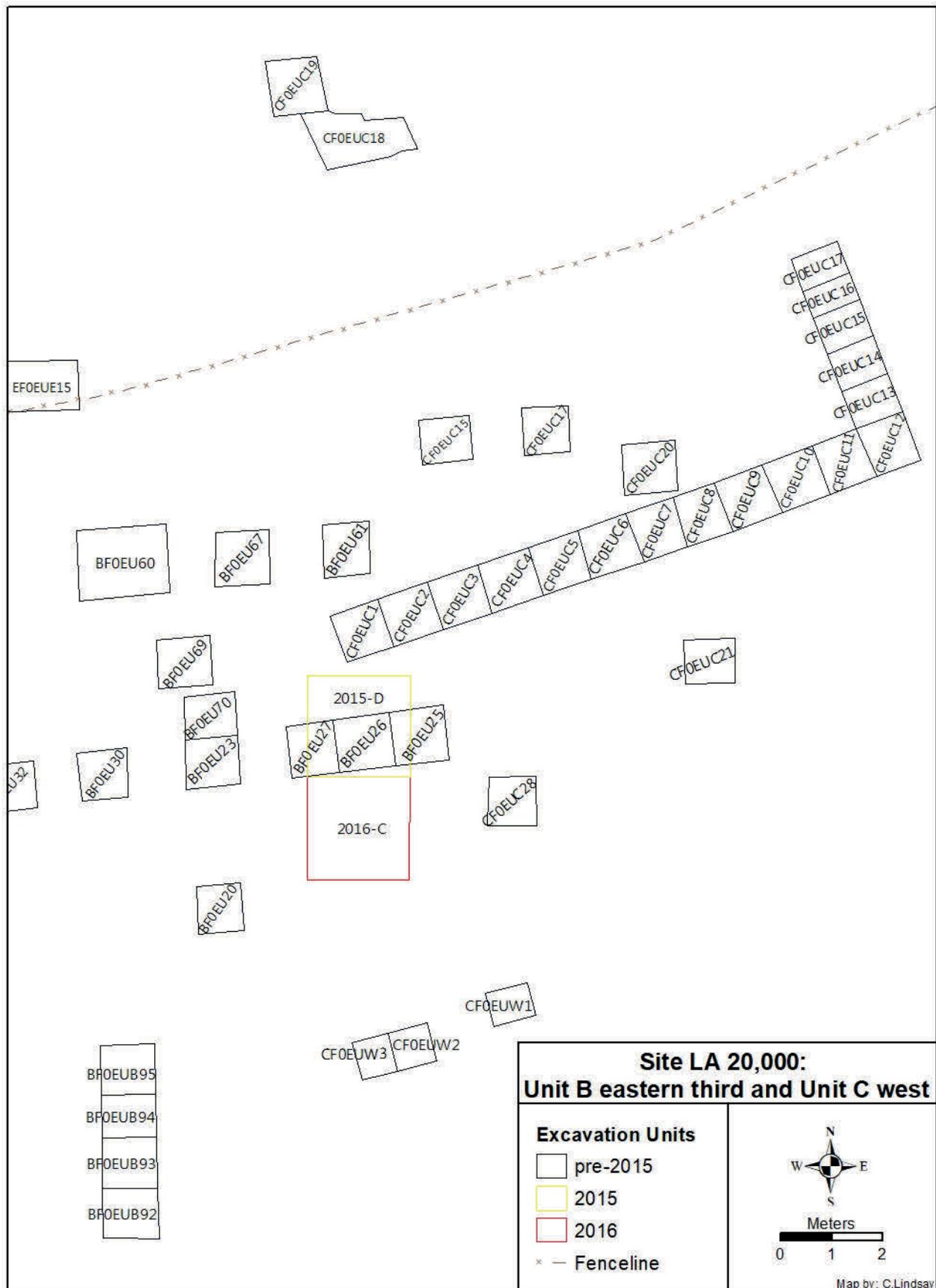
Map by: C.Lindsay

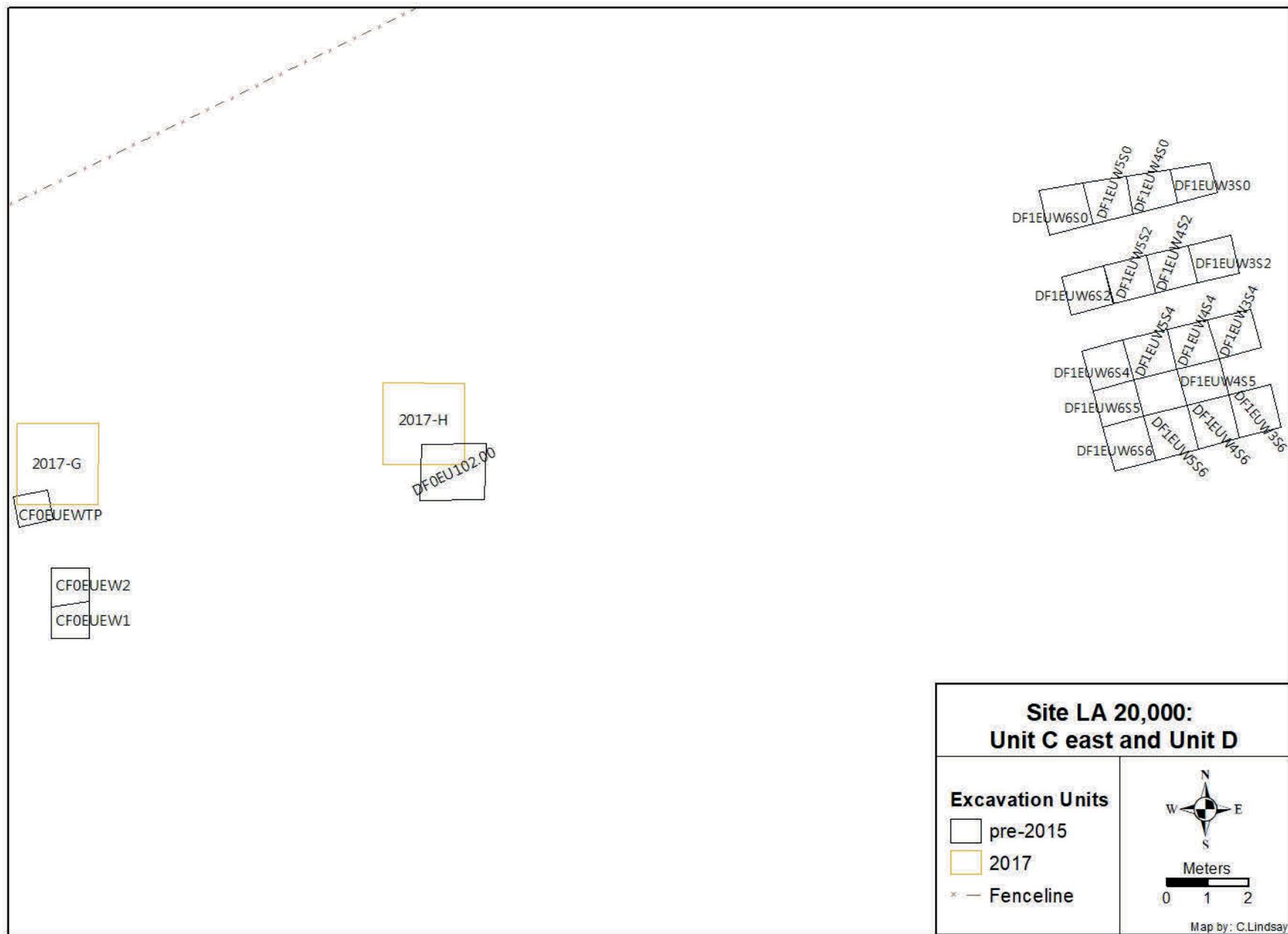














Appendix D. Artifact Catalogue.

Botanicals

Unit	Excavation Unit	Context	Material	Field Spec
A	2015A	11	charcoal	30
A	2015A	12	charcoal	39
A	2015A	15	charcoal	56
A	2015A	21	charcoal	68
A	2015A	21	charcoal	74
A	2015A	21	charcoal	81
A	2015A	21	wood	78
A	2015A	25	charcoal	87
A	2015A	25	wood	86
A	2015A	25	wood	93
A	2015A	27	charcoal	100
A	2015A	29	charcoal	111
A	2015A	31	charcoal	117
A	2015B	2	charcoal	9
A	2015B	7	charcoal	27
A	2015B	7	charcoal	19
A	2015B	14	charcoal	45
A	2015H	44	botanical	145
A	2015H	48	wood	147
A	2015I	87	charcoal	1
A	2015I	102	charcoal	25
A	2015I	103	charcoal	47
A	2015I	105	charcoal	70
A	2015I	105	wood	73
A	2015I	111	charcoal	82
A	2015I	115	charcoal	14
A	2015I	117	charcoal	105
A	2015I	117	wood	106
A	2015I	122	charcoal	111
A	2015I	127	charcoal	119
A	2015J	54	charcoal	166
A	2015J	56	charcoal	179
A	2015J	56	wood	170
A	2015J	57	charcoal	182
A	2015J	62	charcoal	187
A	2015J	64	charcoal	201
A	2015J	66	charcoal	206
A	2015J	66	charcoal	218
A	2015J	69	charcoal	226
A	2015J	70	charcoal	233
A	2015J	71	charcoal	246
A	2015J	71	charcoal	239
A	2015J	74	charcoal	249
A	2015J	76	charcoal	261
A	2015J	78	charcoal	266
A	2015J	81	charcoal	268
A	2015J	268	charcoal	36
A	2016B	86	charcoal	2
A	2016B	91	charcoal	419
A	2016B	91	charcoal	23
A	2016B	91	charcoal	19
A	2016B	96	charcoal	52
A	2016B	96	seed	54
A	2016B	107	charcoal	69

A	2016B	113 charcoal	100
A	2016B	113 wood	97
A	2016B	114 charcoal	145
A	2016B	123 charcoal	126
A	2016B	123 charcoal	115
A	2016B	242 charcoal	413
A	2016B	242 wood	414
A	2016E	134 charcoal	162
A	2016E	138 charcoal	178
A	2016E	144 charcoal	188
A	2016E	149 charcoal	204
A	2016E	153 charcoal	235
A	2016E	165 charcoal	250
A	2016E	176 charcoal	275
A	2016E	176 wood	278
A	2016E	182 charcoal	324
A	2016E	189 charcoal	325
A	2016E	194 wood	334
A	2017D	320 Charcoal	296
A	2017K	368 Charcoal	306
A	2017K	378 Charcoal	333
A	2017K	380 Charcoal	338
A	2017K	384 charcoal	385
A	2017K	392 Charcoal	393
A	2017K	397 Charcoal	398
A	2017K	398 Charcoal	406
A	AY10F	173 charcoal	258
A	2017A	261 Charcoal	46
A	2017A	290 Charcoal	47
A	2017A	291 Charcoal	71
A	2017A	295 Charcoal	86
A	2017A	306 Charcoal	139
A	2017A	322 Charcoal	148
A	2017A	322 Charcoal	149
A	2017A	323 Charcoal	141
A	2017A	323 Charcoal	249
A	2017A	327 Charcoal	173
A	2017A	332 Charcoal	180
A	2017A	338 Charcoal	265
A	2017A	340 Charcoal	257
A	2017A	356 Charcoal	260
A	2017B	274 Charcoal	50
A	2017B	292 charcoal	59
A	2017B	294 charcoal	79
A	2017B	298 Charcoal	101
A	2017B	300 Charcoal	110
A	2017C.1	314 Charcoal	131
A	2017C.1	315 Charcoal	143
A	2017C.2	396 Botanical	446
A	2017C.2	412 Botanical	468
A	2017C.3	364 Charcoal	300
A	2017C.3	369 Charcoal	475
A	2017C.3	369 Seed	474
A	2017C.3	370 Charcoal	342
A	2017C.3	381 Charcoal	374
A	2017C.3	382 Charcoal	353

A	2017C.3	386	Charcoal	358
A	2017C.3	395	Charcoal	380
A	2017C.3	400	Charcoal	417
A	2017C.3	405	Charcoal	466
A	2017C.3	409	Charcoal	476
A	2017C.4	297	Charcoal	93
A	2017C.4	302	Charcoal	121
A	2017C.4	313	Charcoal	126
A	2017C.4	325	Charcoal	157
A	2017C.4	328	Charcoal	159
A	2017C.4	329	Charcoal	186
A	2017C.4	339	Charcoal	195
A	2017C.4	343	Charcoal	210
A	2017C.5	337	charcoal	247
A	2017C.5	341	Charcoal	204
A	2017C.5	341	Wood	236
A	2017C.5	346	Charcoal	220
A	2017C.5	349	Charcoal	223
A	2017C.5	349	Seed	214
A	2017C.5	349	Wood	222
A	2017C.5	352	Charcoal	308
A	2017C.5	352	Cob	311
A	2017C.5	353	Charcoal	225
A	2017C.5	353	Wood	229
A	2017C.5	354	Charcoal	237
A	2017C.5	354	Wood	241
A	2017C.5	358	Charcoal	313
A	2017C.5	376	Charcoal	347
A	2017C.5	394	Charcoal	365
A	2017C.5	399	Charcoal/cob	411
A	2017C.5	403	Charcoal	427
A	2017C.5	403	Cob	425
A	2017C.5	404	Charcoal	434
A	2017C.5	406	Charcoal	459
A	AY10F	186	charcoal	314
A/B	2016P	171	charcoal	272
B	2015C	17	charcoal	63
B	2015C	28	charcoal	97
B	2015C	30	charcoal	107
B	2015C	34	charcoal	127
B	2015K	65	charcoal	252
B	2015K	73	charcoal	256
B	2015K	77	charcoal	263
B	2015K	83	charcoal	276
B	2016C	92	2016-C	419
B	2016D	88	charcoal	85
B	2016D	93	charcoal	34
B	2016D	101	charcoal	59
B	2016D	108	charcoal	61
B	2016D	110	charcoal	77
B	2016G	119	Charcoal	91
B	2016G	124	charcoal	139
B	2016G	130	charcoal	400
B	2016G	130	charcoal	160
B	2016G	133	Charcoal	166
B	2016G	143	Charcoal	398

B	2016G	146	Charcoal	192
B	2016G	158	charcoal	238
B	2016G	166	Charcoal	254
B	2016G	172	charcoal	282
B	2016G	181	charcoal	288
B	2016G	183	charcoal	303
B	2016G	190	charcoal	320
B	2016G	196	charcoal	332
B	2016G	197	charcoal	410
B	2016K	139	charcoal	173
B	2016K	151	charcoal	386
B	2016K	152	Charcoal	210
B	2016K	157	charcoal	221
B	2016K	157	charcoal	225
B	2016K	161	Charcoal	244
B	2016K	161	charcoal	242
B	2016K	170	charcoal	265
B	2016K	178	charcoal	293
B	2016K	185	charcoal	310
B	2016K	191	charcoal	330
B	2016K	195	charcoal	343
B	2016K	201	charcoal	346
B	2016K	201	charcoal	348
B	2016K	202	charcoal	356
B	2016K	206	charcoal	368
B	2016N	198	charcoal	354
B	2016N	204	charcoal	364
B	2016N	205	charcoal	387
B	2016N	207	Charcoal	382
B	2016N	209	charcoal	372
B	2016N	210	charcoal	376
B	2016N	213	charcoal	378
B	2016Q	179	charcoal	402
B	2016Q	188	charcoal	402
B	2017F	310	Charcoal	275
B	2017F	311	Wood	256
B	2017M	417	Burnt dung	424
B	EU13	128	wood	129

Building Materials

Unit	Excavation Unit	Context	Type	Count
A	2015A	1	mortar	25
A	2015A	3	mortar	19
A	2015A	15	adobe	11
A	2015A	15	plaster	32
A	2015A	18	adobe	6
A	2015A	21	daub	29
A	2015A	21	daub	28
A	2015A	21	plaster	38
A	2015A	25	daub	15
A	2015A	27	daub	14
A	2015B	2	mortar	3
A	2015B	7	mortar	4
A	2015B	7	mortar	2
A	2015I	105	plaster	2
A	2015I	127	adobe	2
A	2015I	122	adobe	2
A	2015I	117	plaster	8
A	2015J	62	adobe	4
A	2016B	96	mortar	8
A	2016B	91	mortar	4
A	2016B	107	adobe	6
A	2016B	107	mortar	2
A	2016B	107	mortar	18
A	2016E	165	adobe	21
A	2017A	306	Daub	
A	2017A	338	Plaster	
A	2017A	332	Plaster	1
A	2017A	323	Daub	1
A	2017A	340	Plaster	
A	2017A	290	Plaster	8
A	2017A	291	Plaster	1
A	2017A	338	Plaster	
A	2017B	293	Plaster	8
A	2017B	300	Plaster	
A	2017B	304	Adobe	2
A	2017B	294	Plaster	2
A	2017B	298	Plaster	1
A	2017C.3	381	adobe brick	
A	2017C.3	405	Plaster	2
A	2017C.3	381	plaster	1
A	2017C.4	313	Adobe brick	
A	2017C.4	339	Plaster	
A	2017C.5	358	Adobe brick	
A	2017C.5	403	plaster	2
A	2017C.5	399	Plaster	

A	2017C.5	352 Plaster	1
A	2017C.5	376 Plaster	
A	2017C.5	346 Plaster	1
A	2017C.5	353 Daub	1
A	2017C.5	335 Plaster	1
A	2017C.5	404 Plaster	1
A	2017C.5	358 Plaster	2
A	2017K	368 plaster	
A	2017K	384 Daub	2
A	2017K	384 Plaster	
B	2015C	49 mortar	1
B	2016N	209 tile	1

Ceramics

Unit	EU	Context	Culture	Ware	Type	Count	Portion	Form
A	2015A	9	Pueblo	glazeware	unknown	3	body	bowl
A	2015A	11	Pueblo	glazeware	kotyiti red/yellow polychrome	1	body	bowl
A	2015A	18	Pueblo	glazeware	kotyiti red/yellow polychrome	1	rim	unknown
A	2015A	21	Pueblo	glazeware	kotyiti red/yellow polychrome	1	body	bowl
A	2015A	21	Pueblo	glazeware	unknown	1	body	bowl
A	2015A	21	Pueblo	glazeware	unknown	2	body	unknown
A	2015A	21	Pueblo	glazeware	unknown	1	rim	bowl
A	2015A	21	Pueblo	glazeware	kotyiti red/yellow polychrome	1	rim	bowl
A	2015A	21	Pueblo	glazeware	kotyiti red/yellow polychrome	2	rim	bowl
A	2015A	25	Pueblo	glazeware	unknown	1	body	unknown
A	2015A	25	Pueblo	glazeware	unknown	1	body	bowl
A	2015A	25	Pueblo	glazeware	kotyiti red/yellow polychrome	2	body	bowl
A	2015A	25	Pueblo	glazeware	unknown	1	body	unknown
A	2015B	2	Pueblo	glazeware	glaze on red	1	body	bowl
A	2015B	2	Pueblo	glazeware	kotyiti red/yellow polychrome	1	body	bowl
A	2015B	2	Pueblo	glazeware	polychrome	2	body	unknown
A	2015B	2	Pueblo	glazeware	polychrome	2	body	bowl
A	2015B	2	Pueblo	glazeware	glaze on red	1	body	bowl
A	2015B	2	Pueblo	glazeware	glaze on red	1	body	bowl
A	2015B	7	Pueblo	glazeware	glaze on red	1	body	unknown
A	2015B	7	Pueblo	glazeware	bichrome	1	body	unknown
A	2015B	7	Pueblo	glazeware	glaze on white	1	rim	unknown
A	2015B	7	Pueblo	glazeware	glaze on white	1	base	unknown
A	2015B	7	Pueblo	glazeware	bichrome	1	body	unknown
A	2015B	14	Pueblo	glazeware	glaze on red	1	body	bowl
A	2015E	16	Pueblo	glazeware	kotyiti red/yellow polychrome	2	body	bowl
A	2015E	8	Pueblo	glazeware	unknown	2	body	bowl
A	2015E	16	Pueblo	glazeware	unknown	1	body	bowl
A	2015G	230	Pueblo	glazeware	unknown	2	rim/body	bowl
A	2015G	230	Pueblo	glazeware	kotyiti r/y polychrome	3	body	bowl
A	2015G	230	Pueblo	glazeware	polychrome	1	body	bowl
A	2015H	44	Pueblo	glazeware	kotyiti red/yellow polychrome	9	rim/shoulder	bowl
A	2015H	50	Pueblo	glazeware	unknown	5	rim	bowl
A	2015H	50	Pueblo	glazeware	unknown	15	body	unknown
A	2015H	50	Pueblo	glazeware	Pecos polychrome	1	rim	unknown
A	2015H	50	Pueblo	glazeware	Pecos polychrome	2	body	unknown
A	2015H	50	Pueblo	glazeware	unknown	1	rim	unknown
A	2015H	50	Pueblo	glazeware	unknown	5	body	unknown
A	2015H	50	Pueblo	glazeware	kotyiti red/yellow polychrome	5	rim	unknown
A	2015H	50	Pueblo	glazeware	kotyiti red/yellow polychrome	16	body	unknown
A	2015I	116	Pueblo	glazeware	Agua Fria	1	rim	unknown
A	2015I	103	Pueblo	glazeware	unknown	1	body	bowl
A	2015I	102	Pueblo	glazeware	unknown	1	body	bowl
A	2015J	57	Pueblo	glazeware	unknown	1	body	bowl
A	2015J	62	Pueblo	glazeware	unknown	16	body	unknown
A	2015J	62	Pueblo	glazeware	unknown	5	rim	unknown
A	2015J	62	Pueblo	glazeware	unknown	6	body	bowl
A	2015J	62	Pueblo	glazeware	unknown	11	body	unknown
A	2015J	62	Pueblo	glazeware	kotyiti red/yellow polychrome	4	body	bowl
A	2015J	62	Pueblo	glazeware	kotyiti red/yellow polychrome	4	rim	bowl
A	2015J	62	Pueblo	glazeware	unknown	6	body	unknown
A	2015J	62	Pueblo	glazeware	unknown	4	body	unknown
A	2015J	62	Pueblo	glazeware	unknown	2	rim	unknown
A	2015J	62	Pueblo	glazeware	Puaray polychrome	10	body	unknown
A	2015J	62	Pueblo	glazeware	Puaray polychrome	1	rim	unknown
A	2015J	62	Pueblo	glazeware	unknown	1	rim	unknown
A	2015J	62	Pueblo	glazeware	unknown	4	rim	unknown
A	2015J	62	Pueblo	glazeware	unknown	2	rim	unknown
A	2015J	62	Pueblo	glazeware	unknown	1	rim	unknown

A	2015J	62 Pueblo	glazeware	Pecos polychrome	1 rim	unknown
A	2015J	64 Pueblo	glazeware	unknown	13 body	unknown
A	2015J	64 Pueblo	glazeware	unknown	5 rim	unknown
A	2015J	64 Pueblo	glazeware	unknown	11 body	unknown
A	2015J	64 Pueblo	glazeware	Puaray polychrome	1 rim	bowl
A	2015J	64 Pueblo	glazeware	Puaray polychrome	2 body	bowl
A	2015J	64 Pueblo	glazeware	kotyiti red/yellow polychrome	5 body	bowl
A	2015J	64 Pueblo	glazeware	kotyiti red/yellow polychrome	2 rim	unknown
A	2015J	64 Pueblo	glazeware	unknown	12 body	unknown
A	2015J	64 Pueblo	glazeware	polychrome	7 body	unknown
A	2015J	64 Pueblo	glazeware	unknown	4 rim	unknown
A	2015J	64 Pueblo	glazeware	unknown	3 rim	unknown
A	2015J	64 Pueblo	glazeware	unknown	1 rim	bowl
A	2015J	64 Pueblo	glazeware	unknown	1 body	spindle whorl
A	2015J	66 Pueblo	glazeware	unknown	9 body	bowl
A	2015J	66 Pueblo	glazeware	unknown	5 body	bowl
A	2015J	66 Pueblo	glazeware	unknown	21 body	unknown
A	2015J	66 Pueblo	glazeware	unknown	10 rim	unknown
A	2015J	66 Pueblo	glazeware	unknown	4 rim	bowl
A	2015J	66 Pueblo	glazeware	Puaray polychrome	3 rim/body	bowl
A	2015J	66 Pueblo	glazeware	unknown	2 rim	unknown
A	2015J	66 Pueblo	glazeware	kotyiti red/yellow polychrome	1 body	unknown
A	2015J	66 Pueblo	glazeware	unknown	3 body	unknown
A	2015J	66 Pueblo	glazeware	unknown	4 body	unknown
A	2015J	66 Pueblo	glazeware	unknown	8 rim	bowl
A	2015J	66 Pueblo	glazeware	unknown	3 rim	unknown
A	2015J	66 Pueblo	glazeware	unknown	2 rim	bowl
A	2015J	66 Pueblo	glazeware	unknown	1 rim	unknown
A	2015J	66 Pueblo	glazeware	unknown	14 rim	unknown
A	2015J	66 Pueblo	glazeware	unknown	9 body	unknown
A	2015J	66 Pueblo	glazeware	unknown	7 body	bowl
A	2015J	66 Pueblo	glazeware	unknown	1 rim	bowl
A	2015J	66 Pueblo	glazeware	unknown	5 rim	unknown
A	2015J	66 Pueblo	glazeware	kotyiti red/yellow polychrome	3 body	unknown
A	2015J	66 Pueblo	glazeware	bichrome	3 body	bowl
A	2015J	66 Pueblo	glazeware	polychrome	4 body	unknown
A	2015J	66 Pueblo	glazeware	unknown	1 rim	unknown
A	2015J	66 Pueblo	glazeware	unknown	1 rim	unknown
A	2015J	66 Pueblo	glazeware	unknown	3 rim/body	unknown
A	2015J	66 Pueblo	glazeware	unknown	4 body	bowl
A	2015J	66 Pueblo	glazeware	unknown	3 body	bowl
A	2015J	66 Pueblo	glazeware	unknown	3 body	bowl
A	2015J	66 Pueblo	glazeware	unknown	3 body	unknown
A	2015J	66 Pueblo	glazeware	unknown	3 rim/body	unknown
A	2015J	69 Pueblo	glazeware	unknown	4 rim	bowl
A	2015J	69 Pueblo	glazeware	unknown	9 body	unknown
A	2015J	69 Pueblo	glazeware	glaze on red	10 body	unknown
A	2015J	69 Pueblo	glazeware	glaze on red	7 rim	unknown
A	2015J	69 Pueblo	glazeware	unknown	2 rim	bowl
A	2015J	69 Pueblo	glazeware	kotyiti red/yellow polychrome	1 rim	unknown
A	2015J	69 Pueblo	glazeware	unknown	1 body	bowl
A	2015J	69 Pueblo	glazeware	unknown	4 body	bowl
A	2015J	69 Pueblo	glazeware	unknown	8 body	bowl
A	2015J	69 Pueblo	glazeware	unknown	10 body	unknown
A	2015J	70 Pueblo	glazeware	unknown	13 body	unknown
A	2015J	70 Pueblo	glazeware	unknown	12 rim	unknown
A	2015J	70 Pueblo	glazeware	unknown	1 rim	unknown
A	2015J	70 Pueblo	glazeware	unknown	4 body	bowl
A	2015J	70 Pueblo	glazeware	unknown	2 body	unknown
A	2015J	70 Pueblo	glazeware	unknown	1 base	unknown
A	2015J	70 Pueblo	glazeware	unknown	5 body	bowl
A	2015J	71 Pueblo	glazeware	unknown	5 body	bowl

A	2015J	71 Pueblo	glazeware	unknown	4 body	unknown
A	2015J	71 Pueblo	glazeware	unknown	1 handle	unknown
A	2015J	71 Pueblo	glazeware	unknown	1 body	unknown
A	2015J	71 Pueblo	glazeware	unknown	2 body	bowl
A	2015J	71 Pueblo	glazeware	unknown	1 body	bowl
A	2015J	71 Pueblo	glazeware	unknown	2 rim	bowl
A	2015J	71 Pueblo	glazeware	unknown	2 rim	bowl
A	2015J	71 Pueblo	glazeware	glaze on red	2 rim	unknown
A	2015J	71 Pueblo	glazeware	unknown	2 rim	unknown
A	2015J	71 Pueblo	glazeware	unknown	2 body	unknown
A	2015J	71 Pueblo	glazeware	unknown	1 rim	bowl
A	2015J	74 Pueblo	glazeware	unknown	1 base	unknown
A	2015J	74 Pueblo	glazeware	unknown	26 body	bowl
A	2015J	74 Pueblo	glazeware	unknown	1 base	bowl
A	2015J	74 Pueblo	glazeware	unknown	5 rim	bowl
A	2015J	74 Pueblo	glazeware	Agua Fria	11 rim	unknown
A	2015J	74 Pueblo	glazeware	bichrome	3 body	unknown
A	2015J	74 Pueblo	glazeware	unknown	1 rim	unknown
A	2015J	74 Pueblo	glazeware	unknown	3 body	unknown
A	2015J	74 Pueblo	glazeware	unknown	11 body	unknown
A	2015J	74 Pueblo	glazeware	unknown	1 body	unknown
A	2015J	74 Pueblo	glazeware	kotyiti red/yellow polychrome	8 body	unknown
A	2015J	74 Pueblo	glazeware	bichrome	2 body	unknown
A	2015J	74 Pueblo	glazeware	polychrome	4 body	unknown
A	2015J	74 Pueblo	glazeware	bichrome	1 body	bowl
A	2015J	74 Pueblo	glazeware	bichrome	2 rim	unknown
A	2015J	74 Pueblo	glazeware	bichrome	1 rim	unknown
A	2015J	74 Pueblo	glazeware	bichrome	1 rim	unknown
A	2015J	74 Pueblo	glazeware	unknown	1 rim	unknown
A	2015J	74 Pueblo	glazeware	unknown	2 rim	unknown
A	2015J	76 Pueblo	glazeware	bichrome	1 body	bowl
A	2015J	76 Pueblo	glazeware	Agua Fria	4 rim	unknown
A	2015J	76 Pueblo	glazeware	polychrome	2 body	bowl
A	2015J	76 Pueblo	glazeware	polychrome	1 base	unknown
A	2015J	76 Pueblo	glazeware	Agua Fria	5 body	unknown
A	2015J	76 Pueblo	glazeware	unknown	2 body	unknown
A	2015J	78 Pueblo	glazeware	Agua Fria	3 body	unknown
A	2015J	78 Pueblo	glazeware	bichrome	1 rim	unknown
A	2015J	78 Pueblo	glazeware	bichrome	1 body	unknown
A	2015J	78 Pueblo	glazeware	glaze on red	1 rim	unknown
A	2015J	78 Pueblo	glazeware	unknown	2 body	unknown
A	2015J	81 Pueblo	glazeware	bichrome	1 body	unknown
A	2015J	81 Pueblo	glazeware	Agua Fria	1 body	bowl
A	2015J	81 Pueblo	glazeware	bichrome	1 rim	bowl
A	2015J	81 Pueblo	glazeware	kotyiti red/yellow polychrome	1 rim	unknown
A	2015J	81 Pueblo	glazeware	kotyiti red/yellow polychrome	6 body	bowl
A	2015J	81 Pueblo	glazeware	Pecos polychrome	1 rim	bowl
A	2015J	81 Pueblo	glazeware	Pecos polychrome	1 rim	bowl
A	2015J	81 Pueblo	glazeware	Agua Fria	2 rim	unknown
A	2015J	81 Pueblo	glazeware	Agua Fria	2 rim	bowl
A	2015J	81 Pueblo	glazeware	unknown	11 body	unknown
A	2015J	81 Pueblo	glazeware	unknown	2 body	unknown
A	2015J	81 Pueblo	glazeware	bichrome	3 body	bowl
A	2015J	81 Pueblo	glazeware	kotyiti red/yellow polychrome	2 body	bowl
A	2015J	81 Pueblo	glazeware	glaze on red	3 body	bowl
A	2015J	81 Pueblo	glazeware	glaze on yellow	2 body	unknown
A	2015J	81 Pueblo	glazeware	bichrome	5 body	unknown
A	2015J	81 Pueblo	glazeware	unknown	3 body	unknown
A	2015J	81 Pueblo	glazeware	unknown	1 rim	bowl
A	2015J	81 Pueblo	glazeware	bichrome	1 shoulder	unknown
A	2015J	81 Pueblo	glazeware	kotyiti red/yellow polychrome	1 rim	bowl
A	2015J	81 Pueblo	glazeware	bichrome	1 rim	unknown

A	2015J	53 Pueblo	glazeware	kotyiti red/yellow polychrome	2 body	unknown
A	2015J	53 Pueblo	glazeware	kotyiti red/yellow polychrome	2 rim	bowl
A	2015J	54 Pueblo	glazeware	unknown	1 base	unknown
A	2015J	54 Pueblo	glazeware	unknown	2 body	unknown
A	2015J	54 Pueblo	glazeware	unknown	5 rim	unknown
A	2015J	54 Pueblo	glazeware	unknown	3 body	bowl
A	2015J	54 Pueblo	glazeware	unknown	11 body	unknown
A	2015J	54 Pueblo	glazeware	kotyiti red/yellow polychrome	6 body	unknown
A	2015J	54 Pueblo	glazeware	unknown	4 body	unknown
A	2015J	54 Pueblo	glazeware	unknown	6 body	unknown
A	2015J	54 Pueblo	glazeware	unknown	3 rim	unknown
A	2015J	54 Pueblo	glazeware	unknown	1 rim	unknown
A	2015J	54 Pueblo	glazeware	unknown	1 rim	bowl
A	2015J	56 Pueblo	glazeware	unknown	14 body	unknown
A	2015J	56 Pueblo	glazeware	unknown	11 body	unknown
A	2015J	56 Pueblo	glazeware	kotyiti red/yellow polychrome	2 rim	bowl
A	2015J	56 Pueblo	glazeware	kotyiti red/yellow polychrome	1 rim	unknown
A	2015J	56 Pueblo	glazeware	unknown	1 rim	bowl
A	2015J	56 Pueblo	glazeware	unknown	1 rim	unknown
A	2015J	56 Pueblo	glazeware	unknown	1 rim	unknown
A	2015J	56 Pueblo	glazeware	unknown	1 rim	bowl
A	2015J	56 Pueblo	glazeware	unknown	1 rim	bowl
A	2015J	56 Pueblo	glazeware	glaze on red	17 body	unknown
A	2015J	56 Pueblo	glazeware	glaze on red	5 rim	unknown
A	2015J	56 Pueblo	glazeware	polychrome	1 rim	unknown
A	2015J	56 Pueblo	glazeware	polychrome	4 body	unknown
A	2015J	56 Pueblo	glazeware	unknown	1 body	spindle whorl
A	2015J	57 Pueblo	glazeware	glaze on red	20 body	unknown
A	2015J	57 Pueblo	glazeware	unknown	2 body	unknown
A	2015J	57 Pueblo	glazeware	unknown	3 rim	unknown
A	2015J	57 Pueblo	glazeware	glaze on red	13 body	unknown
A	2015J	57 Pueblo	glazeware	glaze on red	2 base	bowl
A	2015J	57 Pueblo	glazeware	glaze on red	4 rim	unknown
A	2015J	57 Pueblo	glazeware	kotyiti red/yellow polychrome	8 body	unknown
A	2015J	57 Pueblo	glazeware	kotyiti red/yellow polychrome	2 rim	bowl
A	2015J	57 Pueblo	glazeware	unknown	2 body	bowl
A	2015J	57 Pueblo	glazeware	unknown	15 body	unknown
A	2015J	57 Pueblo	glazeware	unknown	1 rim	bowl
A	2015J	57 Pueblo	glazeware	glaze on yellow	12 body	unknown
A	2015J	57 Pueblo	glazeware	glaze on yellow	1 base	bowl
A	2015J	272 Pueblo	Glazeware	polychrome	1 body	bowl
A	2015J	272 Pueblo	Glazeware	glaze on red	5	unknown
A	2015J	260 Pueblo	Glazeware	glaze on red	3 rim	unknown
A	2015J	260 Pueblo	Glazeware	glaze on yellow	3 body	unknown
A	2015J	260 Pueblo	Glazeware	unknown	3 body	unknown
A	2015J	260 Pueblo	glazeware	glaze on red	1 body	unknown
A	2015J	267 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2015J	267 Pueblo	Glazeware	unknown	1 body	unknown
A	2015J	269 Pueblo	Glazeware	unknown	1 body	unknown
A	2015J	271 Pueblo	Glazeware	polychrome	1 body	unknown
A	2015J	271 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2015J	260 Pueblo	Glazeware	glaze on red	1 handle	unknown
A	2015J	260 Pueblo	Glazeware	unknown	1 body	unknown
A	2015J	260 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2015J	265 Pueblo	Glazeware	glaze on red	1 rim	unknown
A	2016B	86 Pueblo	glazeware	Pecos polychrome	1 body	unknown
A	2016B	91 Pueblo	glazeware	unknown	3 body	unknown
A	2016B	107 Pueblo	glazeware	unknown	4 rim/body	unknown
A	2016B	107 Pueblo	glazeware	Pecos polychrome	2 body	bowl
A	2016B	107 Pueblo	glazeware	unknown	2 body	unknown
A	2016B	107 Pueblo	glazeware	unknown	1 body	bowl
A	2016B	107 Pueblo	glazeware	unknown	5 body	unknown

A	2016B	91 Pueblo	glazeware	kotyiti r/y polychrome	2 rim	bowl
A	2016B	91 Pueblo	glazeware	glaze on red	2 body	unknown
A	2016B	96 Pueblo	glazeware	Agua Fria	2 body	bowl
A	2016B	96 Pueblo	glazeware	kotyiti r/y polychrome	2 body	unknown
A	2016B	113 Pueblo	glazeware	glaze on red	7 body	bowl
A	2016B	113 Pueblo	glazeware	Agua Fria	2 rim/body	bowl
A	2016B	123 Pueblo	glazeware	kotyiti r/y polychrome	3 rim/body	bowl
A	2016E	138 Pueblo	glazeware	unknown	1 rim	unknown
A	2016E	165 Pueblo	glazeware	Agua Fria	2 body	unknown
A	2016E	165 Pueblo	glazeware	unknown	2 body	unknown
A	2016E	176 Pueblo	glazeware	polychrome	1 body	unknown
A	2016E	176 Pueblo	glazeware	Agua Fria	5 rim/body	bowl
A	2016E	176 Pueblo	glazeware	glaze on red	1 body	unknown
A	2016E	138 Pueblo	glazeware	glaze on yellow	1 body	bowl
A	2016E	144 Pueblo	glazeware	kotyiti r/y polychrome	2 rim/body	unknown
A	2016P	171 Pueblo	glazeware	unknown	1 body	unknown
A	2016P	180 Pueblo	glazeware	Agua Fria	1 rim	bowl
A	2017A	327 Pueblo	Glazeware	glaze on red	1 rim	unknown
A	2017A	299 Pueblo	glazeware	glaze on yellow	1 body	bowl
A	2017A	299 Pueblo	glazeware	glaze on red/yellow	1 body	unknown
A	2017A	332 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2017A	332 Pueblo	Glazeware	glaze on red/yellow	1 body	unknown
A	2017A	332 Pueblo	Glazeware	polychrome	2 body	unknown
A	2017A	338 Pueblo	Glazeware	glaze on red	3 body	unknown
A	2017A	338 Pueblo	Glazeware	polychrome	1 body	unknown
A	2017A	306 Pueblo	Glazeware	glaze on red	1 rim	unknown
A	2017A	306 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2017A	323 Pueblo	Glazeware	glaze on red	2 body	bowl
A	2017A	322 Pueblo	Glazeware	unknown	1 body	unknown
A	2017A	322 Pueblo	Glazeware	polychrome	1 body	unknown
A	2017B	300 Pueblo	glazeware	glaze on red/yellow	1 body	unknown
A	2017B	294 Pueblo	glazeware	glaze on red	1 body	bowl
A	2017B	293 Pueblo	Glazeware	unknown	1 body	unknown
A	2017C.1	315 Pueblo	glazeware	polychrome	5 body	bowl
A	2017C.1	367 Pueblo	Glazeware	unknown	1 body	unknown
A	2017C.2	407 Pueblo	Glazeware	glaze on red	2 body	unknown
A	2017C.2	407 Pueblo	glazeware	unknown	2 body	unknown
A	2017C.2	396 Pueblo	Glazeware	Pecos	3 body	bowl
A	2017C.2	396 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2017C.2	396 Pueblo	Glazeware	glaze on red	1 rim	unknown
A	2017C.2	396 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2017C.3	395 Pueblo	glazeware	glaze on red	5 body	unknown
A	2017C.3	395 Pueblo	glazeware	glaze on red	2 rim	soup plate
A	2017C.3	395 Pueblo	glazeware	glaze on red	1 rim	unknown
A	2017C.3	395 Pueblo	glazeware	glaze on yellow	1 body	unknown
A	2017C.3	395 Pueblo	glazeware	glaze on red	1 body	unknown
A	2017C.3	395 Pueblo	glazeware	glaze on red	2 body	unknown
A	2017C.3	400 Pueblo	glazeware	unknown	1 body	unknown
A	2017C.3	381 Pueblo	glazeware	glaze on yellow	6 body	unknown
A	2017C.3	405 Pueblo	glazeware	glaze on yellow	3 body	unknown
A	2017C.3	405 Pueblo	glazeware	glaze on yellow	1 rim	bowl
A	2017C.3	405 Pueblo	glazeware	glaze on yellow	3 rim	unknown
A	2017C.3	405 Pueblo	glazeware	glaze on red	3 rim	unknown
A	2017C.3	370 Pueblo	Glazeware	glaze on red	2 body	unknown
A	2017C.3	370 Pueblo	Glazeware	polychrome	1 body	unknown
A	2017C.3	370 Pueblo	Glazeware	unknown	1 body	unknown
A	2017C.3	395 Pueblo	glazeware	glaze on red	1 body	unknown
A	2017C.3	395 Pueblo	glazeware	glaze on yellow	1 body	unknown
A	2017C.3	382 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2017C.3	382 Pueblo	glazeware	glaze on yellow	1 body	unknown
A	2017C.4	329 Pueblo	glazeware	glaze on yellow	1 rim	unknown
A	2017C.4	302 Pueblo	glazeware	glaze on red	1 rim	unknown

A	2017C.4	339 Pueblo	Glazeware	unknown	1 body	unknown
A	2017C.4	336 Pueblo	Glazeware	unknown	1 rim	unknown
A	2017C.4	329 Pueblo	glazeware	polychrome	2 body	unknown
A	2017C.4	297 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2017C.4	297 Pueblo	Glazeware	polychrome	1	unknown
A	2017C.4	297 Pueblo	Glazeware	unknown	1 body	unknown
A	2017C.4	313 Pueblo	Glazeware	polychrome	2 body	unknown
A	2017C.4	313 Pueblo	Glazeware	glaze on red	2 body	unknown
A	2017C.4	313 Pueblo	Glazeware	unknown	1 body	unknown
A	2017C.4	313 Pueblo	Glazeware	unknown	1 body	unknown
A	2017C.4	328 Pueblo	glazeware	unknown	3 body	unknown
A	2017C.4	325 Pueblo	Glazeware	unknown	4 body	unknown
A	2017C.4	325 Pueblo	glazeware	unknown	1 rim	unknown
A	2017C.4	325 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2017C.5	358 Pueblo	glazeware	unknown	3 body	bowl
A	2017C.5	394 Pueblo	glazeware	glaze on red/yellow	2 rim	bowl
A	2017C.5	394 Pueblo	glazeware	glaze on red/yellow	2 body	unknown
A	2017C.5	354 Pueblo	glazeware	polychrome	5 body	bowl
A	2017C.5	354 Pueblo	glazeware	unknown	3 body	bowl
A	2017C.5	354 Pueblo	glazeware	glaze on yellow	1 body	unknown
A	2017C.5	353 Pueblo	glazeware	polychrome	26 body	unknown
A	2017C.5	358 Pueblo	glazeware	polychrome	3 body	unknown
A	2017C.5	337 Pueblo	glazeware	glaze on red	1 body	unknown
A	2017C.5	376 Pueblo	glazeware	unknown	1 body	unknown
A	2017C.5	399 Pueblo	Glazeware	unknown	2 body	unknown
A	2017C.5	399 Pueblo	Glazeware	glaze on red/yellow	8 body	unknown
A	2017C.5	376 Pueblo	Glazeware	unknown	1 body	bowl
A	2017C.5	376 Pueblo	Glazeware	glaze on red	1 body	unknown
A	2017K	378 Pueblo	glazeware	glaze on yellow	1 rim	bowl
A	2017K	368 Pueblo	glazeware	glaze on red	1 body	jar
A	2017K	384 Pueblo	Glazeware	glaze on red	2 body	unknown
A	2017K	384 Pueblo	Gray/whiteware		1 body	unknown
A	2017C.3	382 Pueblo	Grayware		1 rim	unknown
A	2017C.3	382 Pueblo	grayware		2 rim	unknown
A	2017C.3	382 Pueblo	grayware		1 body	unknown
A	2017K	384 Pueblo	Grayware	matte paint	1 body	unknown
A	2017C.5	335 Pueblo	grayware?		1	footed vessel
A	2015J	57 Pueblo	Jeddito	Jeddito polychrome	1 shoulder	unknown
A	2015J	54 Pueblo	Jeddito	black on white/yellow	1 body	unknown
A	2015J	56 Pueblo	Jeddito	black on yellow	1 body	unknown
A	2017C.5	353 Pueblo	Jeddito	Hopi	1 body	unknown
A	2015J	56 Pueblo	Jeddito	black on yellow	3 rim	unknown
A	2015B	7 Pueblo	micaceous	tewa unpolished mica	1 body	unknown
A	2015J	57 Pueblo	micaceous	Tewa polished mica	5 body	spindle whorl
A	2015J	69 Pueblo	micaceous	Tewa polished mica	19 body	unknown
A	2015J	70 Pueblo	micaceous	Tewa polished mica	10 body	unknown
A	2015J	70 Pueblo	micaceous	Tewa polished mica	1 rim	unknown
A	2015J	71 Pueblo	micaceous	Tewa unpolished mica	2 body	unknown
A	2015J	71 Pueblo	micaceous	Tewa polished mica	6 body	unknown
A	2015J	74 Pueblo	micaceous	Tewa unpolished mica	6 body	unknown
A	2015J	74 Pueblo	micaceous	Tewa polished mica	18 body	unknown
A	2015J	76 Pueblo	micaceous	Tewa polished mica	11 body	unknown
A	2015J	76 Pueblo	micaceous	Tewa unpolished mica	1 body	unknown
A	2015J	78 Pueblo	micaceous	Tewa polished mica	4 body	unknown
A	2015J	78 Pueblo	micaceous	tewa polished mica	1 rim	unknown
A	2015J	272 Pueblo	micaceous	micaceous	1 body	unknown
A	2015J	260 Pueblo	micaceous	micaceous	7 body	unknown
A	2015J	260 Pueblo	micaceous	micaceous	1 rim	unknown
A	2015J	265 Pueblo	micaceous	micaceous	1 body	unknown
A	2015J	266 Pueblo	micaceous	micaceous	2 body	unknown
A	2015J	81 Pueblo	micaceous	Tewa polished mica	1 rim	unknown
A	2016B	113 Pueblo	micaceous	tewa polished	2 rim	unknown

A	2017A	327 Pueblo	micaceous	micaceous	3 body	unknown
A	2017A	291 Pueblo	micaceous	micaceous	1 body	unknown
A	2017A	338 Pueblo	micaceous	micaceous	1 body	unknown
A	2017A	323 Pueblo	micaceous	micaceous	1 body	unknown
A	2017A	322 Pueblo	micaceous	micaceous	1 body	unknown
A	2017A	323 Pueblo	micaceous	micaceous	2 body	unknown
A	2017B	298 Pueblo	micaceous	micaceous	1 body	unknown
A	2017C.1	314 Pueblo	micaceous	micaceous	1 body	unknown
A	2017C.3	395 Pueblo	micaceous	micaceous	1 body	unknown
A	2017C.3	381 Pueblo	micaceous	micaceous	3 body	unknown
A	2017C.3	381 Pueblo	micaceous	micaceous	1 body	unknown
A	2017C.3	405 Pueblo	micaceous	micaceous	52 body	unknown
A	2017C.3	370 Pueblo	micaceous	micaceous	6 body	unknown
A	2017C.3	370 Pueblo	micaceous	micaceous	1 rim	unknown
A	2017C.3	364 Pueblo	micaceous	micaceous	1 body	unknown
A	2017C.3	386 Pueblo	micaceous	micaceous	1 body	unknown
A	2017C.3	409 Pueblo	micaceous	micaceous	1 body	unknown
A	2017C.3	382 Pueblo	micaceous	micaceous	10 body	unknown
A	2017C.3	395 Pueblo	micaceous	micaceous	3 body	unknown
A	2017C.3	405 Pueblo	micaceous	micaceous	5 body	unknown
A	2017C.4	297 Pueblo	micaceous	micaceous	4 body	unknown
A	2017C.4	313 Pueblo	micaceous	micaceous	7 body	unknown
A	2017C.4	313 Pueblo	micaceous	micaceous	3 rim	unknown
A	2017C.4	313 Pueblo	micaceous	micaceous	3 body	unknown
A	2017C.4	325 Pueblo	micaceous	micaceous	6 body	unknown
A	2017C.5	394 Pueblo	micaceous	micaceous	3 body	unknown
A	2017C.5	353 Pueblo	micaceous	micaceous	1 body	unknown
A	2017C.5	352 Pueblo	micaceous	micaceous	1 body	unknown
A	2017C.5	346 Pueblo	micaceous	micaceous	2 body	unknown
A	2017C.5	349 Pueblo	micaceous	micaceous	7 body	unknown
A	2017C.5	376 Pueblo	micaceous	micaceous	2 body	unknown
A	2017K	361 Pueblo	micaceous	micaceous	1 body	unknown
A	2017K	380 Pueblo	micaceous	micaceous	1 body	unknown
A	2017K	392 Pueblo	micaceous	micaceous	1 body	unknown
A	2017K	384 Pueblo	micaceous	micaceous	2 body	unknown
A	2017K	384 Pueblo	micaceous	micaceous	1 body	unknown
A	2015A	21 Pueblo	micaceous	tewa polished mica	1 body	unknown
A	2015A	21 Pueblo	micaceous	tewa unpolished mica	4 body	unknown
A	2015A	29 Pueblo	micaceous	tewa polished mica	1 body	unknown
A	2015A	25 Pueblo	micaceous	tewa unpolished mica	5 body	unknown
A	2015A	31 Pueblo	micaceous	tewa polished mica	1 shoulder	unknown
A	2015B	2 Pueblo	micaceous	tewa polished mica	5 body	unknown
A	2015B	2 Pueblo	micaceous	tewa polished mica	6 body	unknown
A	2015B	7 Pueblo	micaceous	tewa polished mica	1 body	unknown
A	2015B	7 Pueblo	micaceous	tewa polished mica	1 body	unknown
A	2015H	50 Pueblo	micaceous	tewa polished mica	20 body	unknown
A	2015I	105 Pueblo	micaceous	tewa unpolished	1 body	unknown
A	2015I	122 Pueblo	micaceous	tewa unpolished mica	1 body	unknown
A	2015I	103 Pueblo	micaceous	tewa polished	1 body	unknown
A	2015J	62 Pueblo	micaceous	Tewa unpolished mica	13 body	unknown
A	2015J	62 Pueblo	micaceous	Tewa polished mica	40 body	unknown
A	2015J	62 Pueblo	micaceous	Tewa polished mica	2 rim	unknown
A	2015J	62 Pueblo	micaceous	Tewa unpolished mica	2 rim	unknown
A	2015J	64 Pueblo	micaceous	Tewa polished mica	53 body	unknown
A	2015J	64 Pueblo	micaceous	Tewa unpolished	3 rim	unknown
A	2015J	66 Pueblo	micaceous	Tewa polished mica	55 body	unknown
A	2015J	66 Pueblo	micaceous	Tewa polished mica	9 rim	unknown
A	2015J	66 Pueblo	micaceous	Tewa polished mica	1 body	spindle whorl
A	2015J	66 Pueblo	micaceous	Tewa polished mica	34 body	unknown
A	2015J	66 Pueblo	micaceous	Tewa unpolished mica	23 body	unknown
A	2015J	66 Pueblo	micaceous	Tewa unpolished mica	3 rim	unknown
A	2015J	66 Pueblo	micaceous	Tewa polished	8 rim	unknown

A	2015J	81 Pueblo	micaceous	tewa unpolished mica	8 body	unknown
A	2015J	81 Pueblo	micaceous	tewa unpolished mica	7 body	unknown
A	2015J	81 Pueblo	micaceous	tewa polished mica	10 body	unknown
A	2015J	81 Pueblo	micaceous	tewa polished mica	1 rim	unknown
A	2015J	53 Pueblo	micaceous	tewa polished mica	1 body	unknown
A	2015J	54 Pueblo	micaceous	tewa polished mica	11 body	unknown
A	2015J	56 Pueblo	micaceous	tewa polished mica	1 rim	unknown
A	2015J	56 Pueblo	micaceous	tewa polished mica	24 body	unknown
A	2015J	56 Pueblo	micaceous	tewa unpolished mica	4 body	unknown
A	2015J	57 Pueblo	micaceous	tewa polished mica	71 body	unknown
A	2015J	57 Pueblo	micaceous	tewa unpolished mica	4 body	unknown
A	2016B	86 Pueblo	micaceous	tewa polished	1 body	bowl
A	2016B	114 Pueblo	micaceous	tewa polished	1 body	unknown
A	2016B	91 Pueblo	micaceous	tewa polished	1 body	unknown
A	2016B	107 Pueblo	micaceous	tewa polished	3 body	unknown
A	2016B	96 Pueblo	micaceous	tewa unpolished	7 body	unknown
A	2016B	113 Pueblo	micaceous	tewa unpolished	7 body	unknown
A	2016B	123 Pueblo	micaceous	tewa unpolished	1 body	unknown
A	2016E	138 Pueblo	micaceous	tewa unpolished	3 body	unknown
A	2016E	165 Pueblo	micaceous	tewa unpolished	4 body	unknown
A	2016E	176 Pueblo	micaceous	tewa polished mica	1 body	unknown
A	2016E	153 Pueblo	micaceous	tewa polished	5 body	unknown
A	2016E	138 Pueblo	micaceous	tewa unpolished	5 body	unknown
A	2016P	171 Pueblo	micaceous	tewa unpolished	4 body	unknown
A	2015A	1 Pueblo	Plain	utility	1 body	unknown
A	2015A	1 Pueblo	Plain	utility	1 body	unknown
A	2015A	1 Pueblo	Plain	utility	1 body	unknown
A	2015A	1 Pueblo	plain	tewa red	1 body	bowl
A	2015A	4 Pueblo	Plain	utility	1 body	bowl
A	2015A	6 Pueblo	Plain	utility	1 rim	bowl
A	2015A	6 Pueblo	Plain	utility	1 body	bowl
A	2015A	6 Pueblo	Plain	utility	1 body	bowl
A	2015A	11 Pueblo	Plain	utility	1 body	unknown
A	2015A	12 Pueblo	Plain	utility	1 body	unknown
A	2015A	12 Pueblo	Plain	utility	1 body	unknown
A	2015A	18 Pueblo	Plain	utility	1 body	unknown
A	2015A	21 Pueblo	plain	tewa red	1 body	unknown
A	2015A	21 Pueblo	Plain	utility	3 body	body
A	2015A	21 Pueblo	Plain	utility	11 body	unknown
A	2015A	21 Pueblo	Plain	utility	5 body	unknown
A	2015A	21 Pueblo	plain	tewa red	1 body	unknown
A	2015A	27 Pueblo	Plain	utility	1 body	unknown
A	2015A	27 Pueblo	Plain	utility	2 body	unknown
A	2015A	29 Pueblo	plain	tewa red	1 body	unknown
A	2015A	29 Pueblo	Plain	utility	3 body	unknown
A	2015A	29 Pueblo	Plain	utility	4 body	unknown
A	2015A	25 Pueblo	Plain	utility	10 body	unknown
A	2015A	25 Pueblo	Plain	utility	7 body	unknown
A	2015A	25 Pueblo	plain	tewa red	1 body	unknown
A	2015A	29 Pueblo	Plain	utility	1 body	unknown
A	2015A	59 Pueblo	Plain	utility	1 body	unknown
A	2015B	2 Pueblo	Plain	utility	4 body	unknown
A	2015B	2 Pueblo	Plain	utility	13 body	unknown
A	2015B	2 Pueblo	plain	tewa red	6 body	unknown
A	2015B	2 Pueblo	Plain	utility	4 body	unknown
A	2015B	5 Pueblo	plain	tewa red	1 body	unknown
A	2015B	5 Pueblo	Plain	utility	1 body	unknown
A	2015B	5 Pueblo	plain	tewa red	1 body	unknown
A	2015B	7 Pueblo	Plain	utility	5 body	unknown
A	2015B	7 Pueblo	plain	tewa red	1 body	unknown
A	2015B	7 Pueblo	Plain	utility	1 base	unknown
A	2015B	7 Pueblo	Plain	utility	1 body	unknown

A	2015B	7 Pueblo	Plain	utility	1 body	unknown
A	2015B	7 Pueblo	Plain	utility	1 base	unknown
A	2015B	10 Pueblo	Plain	utility	1 rim	unknown
A	2015B	10 Pueblo	plain	tewa red	2 body	unknown
A	2015B	14 Pueblo	plain	tewa red	1 body	unknown
A	2015E	16 Pueblo	Plain	utility	1 rim	unknown
A	2015E	16 Pueblo	Plain	utility	1 body	unknown
A	2015G	35 Pueblo	Plain	utility	4 body	unknown
A	2015G	230 Pueblo	Plain	utility	2 body	unknown
A	2015H	40 Pueblo	Plain	utility	2 body	unknown
A	2015H	42 Pueblo	Plain	utility	2 body	unknown
A	2015H	48 Pueblo	Plain	utility	1 body	unknown
A	2015H	50 Pueblo	Plain	utility	1 body	unknown
A	2015H	50 Pueblo	Plain	utility	1 body	spindle whorl
A	2015H	50 Pueblo	plain	tewa red	14 body	unknown
A	2015H	50 Pueblo	Plain	utility	2 rim	unknown
A	2015H	50 Pueblo	Plain	utility	2 rim	unknown
A	2015H	50 Pueblo	Plain	utility	1 rim	unknown
A	2015H	50 Pueblo	plain	tewa red	1 rim	bowl
A	2015H	50 Pueblo	Plain	utility	60 body	unknown
A	2015H	50 Pueblo	Plain	utility	15 body	unknown
A	2015J	62 Pueblo	Plain	utility	72 body	unknown
A	2015J	62 Pueblo	Plain	utility	10 body	unknown
A	2015J	62 Pueblo	Plain	utility	57 body	unknown
A	2015J	57 Pueblo	Plain	utility	11 rim	unknown
A	2015J	57 Pueblo	Plain	utility	1 rim/shoulder	unknown
A	2015J	62 Pueblo	Plain	utility	32 body	unknown
A	2015J	62 Pueblo	Plain	utility	2 rim	unknown
A	2015J	62 Pueblo	Plain	utility	3 rim	unknown
A	2015J	62 Pueblo	Plain	utility	5 rim	unknown
A	2015J	62 Pueblo	Plain	tewa red	14 body	unknown
A	2015J	62 Pueblo	Plain	tewa red	4 rim	unknown
A	2015J	62 Pueblo	Plain	Tewa red	1 handle	unknown
A	2015J	62 Pueblo	Plain	utility	1 body	spindle whorl
A	2015J	64 Pueblo	Plain	utility	91 body	unknown
A	2015J	64 Pueblo	Plain	utility	23 body	unknown
A	2015J	64 Pueblo	Plain	utility	25 body	unknown
A	2015J	64 Pueblo	Plain	utility	1 rim	unknown
A	2015J	64 Pueblo	Plain	utility	8 rim	unknown
A	2015J	64 Pueblo	plain	tewa red	18 body	unknown
A	2015J	64 Pueblo	plain	tewa red	2 rim	unknown
A	2015J	64 Pueblo	Plain	utility	1 body	spindle whorl
A	2015J	62 Pueblo	Plain	utility	1 body	unknown
A	2015J	66 Pueblo	plain	tewa red	2 body	unknown
A	2015J	66 Pueblo	Plain	utility	3 rim	unknown
A	2015J	66 Pueblo	Plain	utility	7 rim	unknown
A	2015J	66 Pueblo	Plain	utility	95 body	unknown
A	2015J	66 Pueblo	Plain	utility	2 body	spindle whorl
A	2015J	66 Pueblo	Plain	utility	1 body	spindle whorl
A	2015J	66 Pueblo	Plain	utility	85 body	unknown
A	2015J	66 Pueblo	Plain	utility	48 body	unknown
A	2015J	66 Pueblo	Plain	utility	7 rim	unknown
A	2015J	66 Pueblo	Plain	utility	12 rim	unknown
A	2015J	66 Pueblo	Plain	utility	2 body	spindle whorl
A	2015J	66 Pueblo	Plain	Tewa red	7 body	unknown
A	2015J	69 Pueblo	Plain	utility	72 body	unknown
A	2015J	69 Pueblo	Plain	utility	18 body	unknown
A	2015J	69 Pueblo	Plain	utility	9 rim	unknown
A	2015J	69 Pueblo	Plain	utility	1 base	unknown
A	2015J	69 Pueblo	Plain	utility	14 body	unknown
A	2015J	69 Pueblo	Plain	utility	2 rim/shoulder	unknown
A	2015J	69 Pueblo	Plain	Tewa red	2 body	unknown

A	2015J	70 Pueblo	Plain	utility	22 body	unknown
A	2015J	70 Pueblo	Plain	utility	41 body	unknown
A	2015J	70 Pueblo	Plain	utility	16 body	unknown
A	2015J	70 Pueblo	Plain	utility	1 base	unknown
A	2015J	70 Pueblo	Plain	utility	5 rim	unknown
A	2015J	71 Pueblo	Plain	utility	28 body	unknown
A	2015J	71 Pueblo	Plain	utility	5 body	unknown
A	2015J	71 Pueblo	Plain	utility	20 body	unknown
A	2015J	71 Pueblo	Plain	utility	2 rim	unknown
A	2015J	71 Pueblo	Plain	utility	5 body	unknown
A	2015J	74 Pueblo	Plain	utility	35 body	unknown
A	2015J	74 Pueblo	Plain	utility	11 body	unknown
A	2015J	74 Pueblo	Plain	utility	42 body	unknown
A	2015J	74 Pueblo	Plain	utility	26 body	unknown
A	2015J	74 Pueblo	Plain	Tewa red	16 body	unknown
A	2015J	74 Pueblo	Plain	utility	4 rim	unknown
A	2015J	74 Pueblo	Plain	utility	5 rim	unknown
A	2015J	74 Pueblo	Plain	utility	2 rim	unknown
A	2015J	74 Pueblo	Plain	utility	3 base	unknown
A	2015J	74 Pueblo	Plain	utility	1 base	unknown
A	2015J	76 Pueblo	Plain	utility	3 body	unknown
A	2015J	76 Pueblo	Plain	utility	19 body	unknown
A	2015J	76 Pueblo	Plain	utility	17 body	unknown
A	2015J	78 Pueblo	Plain	utility	11 body	unknown
A	2015J	78 Pueblo	Plain	utility	9 body	unknown
A	2015J	78 Pueblo	Plain	utility	1 base	unknown
A	2015J	81 Pueblo	Plain	utility	2 body	unknown
A	2015J	81 Pueblo	Plain	utility	30 body	unknown
A	2015J	81 Pueblo	Plain	utility	15 body	unknown
A	2015J	81 Pueblo	Plain	utility	17 body	unknown
A	2015J	81 Pueblo	Plain	utility	2 base	unknown
A	2015J	81 Pueblo	Plain	utility	2 rim	unknown
A	2015J	81 Pueblo	Plain	utility	1 rim	unknown
A	2015J	81 Pueblo	Plain	utility	8 body	unknown
A	2015J	81 Pueblo	Plain	utility	4 body	unknown
A	2015J	81 Pueblo	Plain	utility	1 rim	unknown
A	2015J	81 Pueblo	plain	tewa red	6 body	unknown
A	2015J	81 Pueblo	plain	tewa red	1 body/handle	unknown
A	2015J	52 Pueblo	Plain	utility	1 body	unknown
A	2015J	53 Pueblo	plain	tewa red	1 body	unknown
A	2015J	53 Pueblo	Plain	utility	1 rim	unknown
A	2015J	53 Pueblo	Plain	utility	3 body	unknown
A	2015J	54 Pueblo	Plain	utility	1 rim	unknown
A	2015J	54 Pueblo	Plain	utility	6 body	unknown
A	2015J	54 Pueblo	plain	tewa red	4 body	unknown
A	2015J	54 Pueblo	plain	tewa red	4 rim	bowl
A	2015J	54 Pueblo	plain	tewa red	8 body	bowl
A	2015J	54 Pueblo	plain	tewa red	2 rim/shoulder	bowl
A	2015J	54 Pueblo	Plain	utility	24	unknown
A	2015J	54 Pueblo	Plain	utility	7 body	unknown
A	2015J	54 Pueblo	Plain	utility	3 rim	unknown
A	2015J	54 Pueblo	Plain	utility	2 rim	unknown
A	2015J	54 Pueblo	Plain	utility	11 body	unknown
A	2015J	56 Pueblo	Plain	utility	76 body	unknown
A	2015J	56 Pueblo	Plain	utility	27 body	unknown
A	2015J	56 Pueblo	plain	tewa red	19 body	unknown
A	2015J	56 Pueblo	Plain	utility	5 rim	unknown
A	2015J	57 Pueblo	Plain	utility	111 body	unknown
A	2015J	57 Pueblo	Plain	utility	5 rim	unknown
A	2015J	57 Pueblo	plain	tewa red	10 body	unknown
A	2015J	269 Pueblo	Plain	gray	1 body	unknown
A	2015J	272 Pueblo	Plain	redware	3 body	unknown

A	2015J	264 Pueblo	Plain	redware	1 body	unknown
A	2015J	260 Pueblo	Plain	redware	3 rim	unknown
A	2015J	260 Pueblo	Plain	redware	1 body	unknown
A	2015J	260 Pueblo	Plain	redware	16 body	unknown
A	2015J	268 Pueblo	Plain	redware	1 body	unknown
A	2015J	267 Pueblo	Plain	redware	1 body	unknown
A	2015J	264 Pueblo	Plain	redware	1 body	unknown
A	2015J	269 Pueblo	Plain	red/buff	1 body	unknown
A	2015J	271 Pueblo	Plain	redware	1 body	unknown
A	2015J	265 Pueblo	Plain	redware	5 body	unknown
A	2015J	260 Pueblo	Plain	buff	5 body	unknown
A	2015J	265 Pueblo	Plain	redware	1 body	unknown
A	2016B	91 Pueblo	plain	tewa red	5 rim/body	unknown
A	2016B	91 Pueblo	Plain	utility	7 body	unknown
A	2016B	107 Pueblo	Plain	utility	1 rim	unknown
A	2016B	96 Pueblo	Plain	utility	6 body	unknown
A	2016B	123 Pueblo	plain	tewa red	1 body	unknown
A	2016E	165 Pueblo	Plain	utility	2 rim	unknown
A	2016E	165 Pueblo	plain	tewa red	2 body	unknown
A	2016E	149 Pueblo	plain	tewa red	2 body	unknown
A	2016E	138 Pueblo	plain	tewa red	2 body	unknown
A	2016P	171 Pueblo	plain	tewa red	2 rim/body	unknown
A	2017A	340 Pueblo	plain	redware	1 body	unknown
A	2017A	291 Pueblo	Plain	gray	1 body	unknown
A	2017A	332 Pueblo	Plain	Redware	5 body	unknown
A	2017A	332 Pueblo	Plain	buff	3 body	unknown
A	2017A	332 Pueblo	Plain	gray	1 body	unknown
A	2017A	332 Pueblo	Plain	gray/white	1 rim	unknown
A	2017A	338 Pueblo	Plain	buff	2 body	unknown
A	2017A	323 Pueblo	Plain	gray	1 body	unknown
A	2017B	294 Pueblo	plain	red ware	1 body	unknown
A	2017C.1	365 Pueblo	plain	redware	1 body	unknown
A	2017C.1	367 Pueblo	Plain	redware	3 body	unknown
A	2017C.1	416 Pueblo	Plain	redware	2 body	unknown
A	2017C.1	367 Pueblo	plain		1 rim	unknown
A	2017C.2	407 Pueblo	Plain		3 body	unknown
A	2017C.2	396 Pueblo	Plain	redware	7 body	unknown
A	2017C.2	396 Pueblo	Plain	gray	2 body	unknown
A	2017C.3	395 Pueblo	plain	red/buff	6 body	unknown
A	2017C.3	395 Pueblo	plain	red/buff	1 rim	unknown
A	2017C.3	405 Pueblo	Plain		2 body	unknown
A	2017C.3	405 Pueblo	Plain		2 rim	unknown
A	2017C.3	405 Pueblo	Plain		2 body	unknown
A	2017C.3	405 Pueblo	Plain	redware	12 body	unknown
A	2017C.3	364 Pueblo	Plain		3 body	unknown
A	2017C.3	369 Pueblo	Plain	gray	1 body	unknown
A	2017C.3	369 Pueblo	Plain	redware	1 body	unknown
A	2017C.3	386 Pueblo	Plain	redware	1 body	unknown
A	2017C.3	409 Pueblo	Plain	redware	1 body	unknown
A	2017C.4	329 Pueblo	plain	gray	1 rim	soup plate
A	2017C.4	336 Pueblo	Plain	redware	1 body	unknown
A	2017C.4	297 Pueblo	Plain	redware	2 body	unknown
A	2017C.4	313 Pueblo	Plain	redware	8 body	unknown
A	2017C.4	328 Pueblo	Plain	redware	8 Body	unknown
A	2017C.4	325 Pueblo	Plain	gray	1 body	unknown
A	2017C.5	404 Pueblo	plain	redware	1 body	bowl
A	2017C.5	394 Pueblo	plain	gray	1 body	unknown
A	2017C.5	358 Pueblo	Plain	redware	2 body	unknown
A	2017C.5	337 Pueblo	Plain	redware	1 body	unknown
A	2017C.5	346 Pueblo	Plain	redware	1 body	unknown
A	2017C.5	376 Pueblo	Plain		1 rim	unknown
A	2017C.5	399 Pueblo	Plain	redware	1 body	unknown

A	2017C.5	349 Pueblo	Plain	gray	3 body	unknown
A	2017C.5	349 Pueblo	Plain	buff	1 rim	unknown
A	2017C.5	349 Pueblo	Plain	redware	1 body	unknown
A	2017C.5	376 Pueblo	Plain	buff	3 body	unknown
A	2017K	368 Pueblo	plain	gray	1 body	unknown
A	2017K	397 Pueblo	Plain		1 body	unknown
A	2017K	380 Pueblo	Plain	red	2 body	unknown
A	2017K	380 Pueblo	Plain	buff	1 body	unknown
A	2017K	392 Pueblo	Plain	gray	3 body	unknown
A	2017K	392 Pueblo	Plain	redware	1 body	unknown
A	2017K	384 Pueblo	Plain	buff	1 body	unknown
A	2017K	384 Pueblo	Plain	redware	1 body	unknown
A	2017C.5	406 Pueblo	plain	redware	2 body	bowl?
A	2015A	21 Pueblo	plain	tewa red	1 body	unknown
A	2015A	15 Pueblo	plain	tewa red	1 body	unknown
A	2017C.3	381 Pueblo	plain	redware	1 handle	unknown
A	2017C.4	325 Pueblo	Plain	redware	18 body	unknown
A	2015J	269 Pueblo	Redware		1 body	unknown
A	2015J	272 Pueblo	redware	redware	1 body	unknown
A	2015J	273 Pueblo	redware	redware	1 body	unknown
A	2015J	260 Pueblo	redware	redware	4 body	unknown
A	2015J	268 Pueblo	redware	redware	5 body	unknown
A	2017A	332 Pueblo	redware	redware	1 body	unknown
A	2017B	294 Pueblo	redware		1 body	unknown
A	2017C.1	367 Pueblo	redware	redware	1 body	unknown
A	2017C.1	367 Pueblo	redware	redware	1 body	unknown
A	2017C.2	407 Pueblo	redware	redware	2 body	unknown
A	2017C.3	395 Pueblo	redware		2 body	unknown
A	2017C.3	405 Pueblo	redware		1 body	unknown
A	2017C.3	370 Pueblo	redware		1 body	unknown
A	2017C.3	386 Pueblo	redware	redware	1 body	bowl
A	2017C.3	382 Pueblo	redware	redware	1 rim	unknown
A	2017C.3	382 Pueblo	redware	redware	6 body	unknown
A	2017C.3	382 Pueblo	redware	redware	2 rim	unknown
A	2017C.3	382 Pueblo	redware	redware	1 body	unknown
A	2017C.4	297 Pueblo	Redware	polychrome	1 body	unknown
A	2017C.4	313 Pueblo	redware	redware	2 body	unknown
A	2017C.4	328 Pueblo	redware	redware	1 body	unknown
A	2017C.4	325 Pueblo	redware	redware	3 body	unknown
A	2017C.4	325 Pueblo	redware	polychrome	3 body	unknown
A	2017C.4	325 Pueblo	redware	redware	1 body	unknown
A	2017C.5	376 Pueblo	redware	redware	2 body	unknown
A	2017K	378 Pueblo	redware		1 body	unknown
A	2015J	53 Pueblo	Sankawi	black on cream	1 body	unknown
A	2017A	332 Pueblo	Sankawi	Black on cream	1 rim	unknown
A	2017A	332 Pueblo	Sankawi	Black on cream	2 rims	unknown
A	2015A	9 Pueblo	Tewa	Kapo gray	2 body	bowl
A	2015A	18 Pueblo	Tewa	Tewa polychrome	3 base	bowl
A	2015A	29 Pueblo	Tewa	Kapo gray	1 body	unknown
A	2015A	25 Pueblo	Tewa	Kapo gray	1 rim/shoulder	unknown
A	2015B	2 Pueblo	Tewa	tewa bichrome	1 body	unknown
A	2015B	2 Pueblo	Tewa	tewa bichrome	1 rim	unknown
A	2015B	7 Pueblo	Tewa	Tewa polychrome	1 rim	bowl
A	2015B	10 Pueblo	Tewa	tewa bichrome	1 body	unknown
A	2015H	50 Pueblo	Tewa	Tewa polychrome	2 rim	bowl
A	2015H	50 Pueblo	Tewa	Tewa polychrome	3 body	unknown
A	2015H	50 Pueblo	Tewa	Kapo black	1 rim	unknown
A	2015J	57 Pueblo	Tewa	Kapo gray	1 base	unknown
A	2015J	62 Pueblo	Tewa	Tewa polychrome	1 handle	unknown
A	2015J	62 Pueblo	Tewa	Tewa polychrome	2 body	spindle whorl
A	2015J	64 Pueblo	Tewa	Kapo gray	4 base	unknown
A	2015J	64 Pueblo	Tewa	Tewa polychrome	11 body	unknown

A	2015J	66 Pueblo	Tewa	Tewa polychrome	2 body	bowl
A	2015J	69 Pueblo	Tewa	tewa bichrome	3 body	unknown
A	2015J	70 Pueblo	Tewa	Kapo gray	2 body	unknown
A	2015J	70 Pueblo	Tewa	Tewa bichrome	1 body	unknown
A	2015J	71 Pueblo	Tewa	Kapo gray	2 body	unknown
A	2015J	71 Pueblo	Tewa	Tewa bichrome	1 body	unknown
A	2015J	81 Pueblo	Tewa	tewa bichrome	1 rim	bowl
A	2015J	54 Pueblo	Tewa	Tewa polychrome	2 rim	unknown
A	2015J	56 Pueblo	Tewa	Tewa polychrome	5 rim	unknown
A	2015J	56 Pueblo	Tewa	Tewa polychrome	5 body	unknown
A	2015J	57 Pueblo	Tewa	Tewa bichrome	18 body	unknown
A	2015J	57 Pueblo	Tewa	Tewa polychrome	3 rim	unknown
A	2015J	260 Pueblo	Tewa	polychrome	1 body	unknown
A	2016B	114 Pueblo	Tewa	Tewa polychrome	1 body	unknown
A	2016B	91 Pueblo	Tewa	tewa polychrome	1 body	bowl
A	2016B	107 Pueblo	Tewa	tewa polychrome	3 body	unknown
A	2016B	113 Pueblo	Tewa	tewa polychrome	4 body	bowl
A	2017A	332 Pueblo	Tewa	polychrome	1 body	bowl
A	2017C.3	395 Pueblo	Tewa	polychrome	2 body	unknown
A	2017C.3	395 Pueblo	Tewa	Kapo gray	5 body	unknown
A	2017C.3	381 Pueblo	Tewa	polychrome	16 body	unknown
A	2017C.3	381 Pueblo	Tewa	gray	1 body	unknown
A	2017C.3	381 Pueblo	Tewa	polychrome	1 rim	unknown
A	2017C.3	410 Pueblo	Tewa	polychrome	1 body	unknown
A	2017C.3	370 Pueblo	Tewa	polychrome	6 body	jar
A	2017C.3	370 Pueblo	Tewa	Kapo gray	1 body	unknown
A	2017C.3	370 Pueblo	Tewa	polychrome	7 body	unknown
A	2017C.3	364 Pueblo	Tewa	Kapo black	1 body	unknown
A	2017C.3	386 Pueblo	Tewa	Kapo black	1 rim	unknown
A	2017C.3	382 Pueblo	Tewa	polychrome	1 rim	unknown
A	2017C.3	382 Pueblo	Tewa	polychrome	1 body	unknown
A	2017C.4	302 Pueblo	Tewa	Kapo gray	2 body	unknown
A	2017C.4	313 Pueblo	Tewa	gray	6 body	unknown
A	2017C.4	328 Pueblo	Tewa	polychrome	1 body	unknown
A	2017C.5	341 Pueblo	Tewa	gray	5 body	unknown
A	2015A	6 Pueblo	Tewa	Kapo gray	4 body	unknown
A	2015A	1 Pueblo	unknown	unknown	1 rim	unknown
A	2015A	1 Pueblo	unknown	unknown	1 body	unknown
A	2015A	6 Pueblo	unknown	unknown	2 body	bowl
A	2015A	18 Pueblo	unknown	unknown	1 body	unknown
A	2015A	21 Pueblo	unknown	unknown	1 rim	unknown
A	2015A	21 Pueblo	unknown	unknown	2 body	unknown
A	2015A	21 Pueblo	unknown	unknown	3 body	unknown
A	2015A	27 Pueblo	unknown	unknown	1 body	bowl
A	2015A	25 Pueblo	unknown	unknown	1 body	unknown
A	2015B	2 Pueblo	unknown	unknown	6 body	unknown
A	2015B	2 Pueblo	unknown	unknown	1 body	unknown
A	2015B	5 Pueblo	unknown	unknown	1 rim	unknown
A	2015B	7 Pueblo	unknown	unknown	4 body	unknown
A	2015B	7 Pueblo	unknown	unknown	1 body	unknown
A	2015E	16 Pueblo	unknown	unknown	1 body	unknown
A	2015G	230 Pueblo	unknown	unknown	4 body	unknown
A	2015G	230 Pueblo	unknown	unknown	1 rim	unknown
A	2015H	37 Pueblo	unknown	unknown	1	unknown
A	2015H	44 Pueblo	unknown	unknown	6 body	unknown
A	2015H	50 Pueblo	unknown	unknown	16 body	unknown
A	2015H	50 Pueblo	unknown	unknown	1 rim	unknown
A	2015I	103 Pueblo	unknown	unknown	1 body	unknown
A	2015I	103 Pueblo	unknown	unknown	1 body	unknown
A	2015I	102 Pueblo	unknown	unknown	1 body	unknown
A	2015I	117 Pueblo	unknown	unknown	1 body	unknown
A	2015I	127 Pueblo	unknown	unknown	1 body	unknown

A	2015I	127	Pueblo	unknown	unknown	1	body	unknown
A	2015J	57	Pueblo	unknown	unknown	32	body	unknown
A	2015J	62	Pueblo	unknown	unknown	51	body	unknown
A	2015J	62	Pueblo	unknown	unknown	4	rim	unknown
A	2015J	62	Pueblo	unknown	unknown	2	body	unknown
A	2015J	62	Pueblo	unknown	unknown	5	body	unknown
A	2015J	62	Pueblo	unknown	unknown	5	rim/body	bowl
A	2015J	64	Pueblo	unknown	unknown	33	body	unknown
A	2015J	64	Pueblo	unknown	unknown	1	rim	unknown
A	2015J	64	Pueblo	unknown	unknown	7	body	unknown
A	2015J	64	Pueblo	unknown	unknown	1	body	spindle whorl
A	2015J	64	Pueblo	unknown	unknown	1	body	spindle whorl
A	2015J	64	Pueblo	unknown	unknown	1	body	spindle whorl
A	2015J	66	Pueblo	unknown	unknown	16	body	unknown
A	2015J	66	Pueblo	unknown	unknown	5	body	unknown
A	2015J	66	Pueblo	unknown	unknown	1	rim	unknown
A	2015J	66	Pueblo	unknown	unknown	2	body	unknown
A	2015J	66	Pueblo	unknown	bichrome	1	body	unknown
A	2015J	66	Pueblo	unknown	unknown	2	body	unknown
A	2015J	66	Pueblo	unknown	unknown	7	body	unknown
A	2015J	66	Pueblo	unknown	unknown	17	body	unknown
A	2015J	66	Pueblo	unknown	unknown	4	body	unknown
A	2015J	66	Pueblo	unknown	unknown	2	body	unknown
A	2015J	66	Pueblo	unknown	unknown	3	base/body	unknown
A	2015J	69	Pueblo	unknown	unknown	14	body	unknown
A	2015J	70	Pueblo	unknown	unknown	8	body	unknown
A	2015J	71	Pueblo	unknown	unknown	8	body	unknown
A	2015J	71	Pueblo	unknown	unknown	2	body	unknown
A	2015J	71	Pueblo	unknown	unknown	1	body	unknown
A	2015J	71	Pueblo	unknown	unknown	1	rim	unknown
A	2015J	74	Pueblo	unknown	unknown	16	body	unknown
A	2015J	74	Pueblo	unknown	bichrome	1	body	unknown
A	2015J	76	Pueblo	unknown	unknown	8	body	unknown
A	2015J	81	Pueblo	unknown	unknown	1	body	unknown
A	2015J	81	Pueblo	unknown	unknown	2	rim/body	unknown
A	2015J	81	Pueblo	unknown	unknown	3	body	unknown
A	2015J	81	Pueblo	unknown	unknown	16	body	unknown
A	2015J	81	Pueblo	unknown	unknown	3	body	unknown
A	2015J	54	Pueblo	unknown	unknown	1	base	unknown
A	2015J	54	Pueblo	unknown	unknown	14	body	unknown
A	2015J	54	Pueblo	unknown	unknown	1	rim	unknown
A	2015J	54	Pueblo	unknown	unknown	1	rim	unknown
A	2015J	54	Pueblo	unknown	unknown	4	rim	unknown
A	2015J	56	Pueblo	unknown	unknown	1	rim	unknown
A	2015J	56	Pueblo	unknown	unknown	35	body	unknown
A	2016B	107	Pueblo	unknown	unknown	2	rim	unknown
A	2016B	86	Pueblo	unknown	unknown	2	body	unknown
A	2016B	91	Pueblo	unknown	unknown	4	body	unknown
A	2016B	91	Pueblo	unknown	unknown	2	rim/body	unknown
A	2016B	123	Pueblo	unknown	unknown	1	body	unknown
A	2016B	107	Pueblo	unknown	unknown	11	body	unknown
A	2016B	107	Pueblo	unknown	unknown	4	body	unknown
A	2016B	107	Pueblo	unknown	unknown	9	body	unknown
A	2016B	107	Pueblo	unknown	unknown	2	body	unknown
A	2016B	107	Pueblo	unknown	unknown	1	body	bowl
A	2016B	91	Pueblo	unknown	unknown	5	body	unknown
A	2016B	91	Pueblo	unknown	unknown	6	body	unknown
A	2016B	91	Pueblo	unknown	bichrome	1	body	bowl
A	2016B	96	Pueblo	unknown	unknown	8	body	unknown
A	2016B	96	Pueblo	unknown	unknown	4	body	unknown
A	2016B	96	Pueblo	unknown	unknown	2	rim	unknown

A	2016B	113 Pueblo	unknown	unknown	15 body	unknown
A	2016B	113 Pueblo	unknown	unknown	12 body	unknown
A	2016B	113 Pueblo	unknown	unknown	1 rim	unknown
A	2016B	123 Pueblo	unknown	unknown	1 body	unknown
A	2016E	182 Pueblo	unknown	unknown	2 body	unknown
A	2016E	138 Pueblo	unknown	unknown	2 body	unknown
A	2016E	176 Pueblo	unknown	unknown	3 rim/body	unknown
A	2016E	176 Pueblo	unknown	unknown	4 body	unknown
A	2016E	153 Pueblo	unknown	unknown	1 body	unknown
A	2016E	138 Pueblo	unknown	unknown	2 body	unknown
A	2016E	138 Pueblo	unknown	unknown	8 body	unknown
A	2016E	194 Pueblo	unknown	unknown	1 body	unknown
A	2016E	144 Pueblo	unknown	unknown	2 body	unknown
A	2016E	144 Pueblo	unknown	unknown	2 body	unknown
A	2016P	171 Pueblo	unknown	unknown	9 body	unknown
A	2016P	180 Pueblo	unknown	unknown	1 body	unknown
A	AY10F	173 Pueblo	unknown	unknown	1 body	unknown
A	2015A	29 Pueblo	unknown	unknown	1 body	unknown
A	2016E	165 Pueblo	unknown	unknown	11 body	unknown
A	2015J	57 Pueblo	utility	utility	156 body	unknown
A	2015J	272 Pueblo	Utility		17 body	unknown
A	2015J	272 Pueblo	Utility		1 body	unknown
A	2015J	260 Pueblo	Utility		13 body	unknown
A	2015J	273 Pueblo	Utility		1 body	unknown
A	2015J	264 Pueblo	Utility		1 body	unknown
A	2015J	269 Pueblo	Utility		3 body	unknown
A	2015J	271 Pueblo	Utility		1 body	unknown
A	2015J	265 Pueblo	Utility	gray	4 body	unknown
A	2015J	266 Pueblo	Utility	redware	1 body	unknown
A	2015J	266 Pueblo	Utility	black	1 body	unknown
A	2015J	260 Pueblo	Utility		4 body	unknown
A	2015J	265 Pueblo	Utility	black	2 body	unknown
A	2015J	268 Pueblo	Utility		5 body	unknown
A	2017A	327 Pueblo	Utility		1 body	unknown
A	2017A	327 Pueblo	Utility		3 body	unknown
A	2017A	327 Pueblo	Utility		6 body	unknown
A	2017A	327 Pueblo	Utility		1 rim	unknown
A	2017A	332 Pueblo	Utility		2 body	unknown
A	2017A	323 Pueblo	Utility		1 body	unknown
A	2017B	304 Pueblo	utility		1 body	unknown
A	2017B	293 Pueblo	Utility		body	unknown
A	2017B	292 Pueblo	Utility		1 body	unknown
A	2017C.1	315 Pueblo	utility		1 body	unknown
A	2017C.1	316 Pueblo	utility		1 body	unknown
A	2017C.2	396 Pueblo	Utility		9 body	unknown
A	2017C.2	412 Pueblo	Utility		1 body	jar
A	2017C.3	395 Pueblo	utility		15 body	unknown
A	2017C.3	405 Pueblo	utility		5 body	unknown
A	2017C.3	405 Pueblo	Utility		9 body	unknown
A	2017C.3	405 Pueblo	utility		2 rim	unknown
A	2017C.3	370 Pueblo	Utility	buff	1 body	unknown
A	2017C.3	370 Pueblo	Utility		6 body	unknown
A	2017C.3	364 Pueblo	Utility		2 body	unknown
A	2017C.3	369 Pueblo	Utility		1 body	unknown
A	2017C.3	386 Pueblo	Utility		2 body	unknown
A	2017C.3	409 Pueblo	Utility		1 body	unknown
A	2017C.3	382 Pueblo	Utility		9 body	unknown
A	2017C.4	343 Pueblo	utility		1 body	unknown
A	2017C.4	302 Pueblo	utility		2 body	unknown
A	2017C.4	339 Pueblo	Utility	corrugated	1 rim?	unknown
A	2017C.4	336 Pueblo	Utility		2 body	unknown
A	2017C.4	329 Pueblo	Utility		8 body	unknown

A	2017C.4	297 Pueblo	Utility		3 body	unknown
A	2017C.4	313 Pueblo	Utility		11 body	unknown
A	2017C.4	328 Pueblo	Utility		1 rim	unknown
A	2017C.4	328 Pueblo	Utility	gray	1 body	unknown
A	2017C.4	325 Pueblo	Utility	gray	8 body	unknown
A	2017C.4	325 Pueblo	Utility	buff	6 body	unknown
A	2017C.5	406 Pueblo	utility		3 body	unknown
A	2017C.5	403 Pueblo	utility		9 body	bowl
A	2017C.5	403 Pueblo	utility		4 body	unknown
A	2017C.5	394 Pueblo	utility		1 body	unknown
A	2017C.5	394 Pueblo	utility		1 body	unknown
A	2017C.5	354 Pueblo	utility		7 body	unknown
A	2017C.5	335 Pueblo	utility		1 body	unknown
A	2017C.5	358 Pueblo	Utility		1 body	unknown
A	2017C.5	349 Pueblo	Utility		2 body	unknown
A	2017C.5	349 Pueblo	Utility		1 rim	jar
A	2017C.5	376 Pueblo	Utility		2 body	unknown
A	2017K	378 Pueblo	utility		2 body	unknown
A	2017K	397 Pueblo	utility		1 body	unknown
A	2017K	380 Pueblo	Utility		1 body	unknown
A	2017K	380 Pueblo	Utility		1 body	unknown
A	2017K	392 Pueblo	Utility		3 body	unknown
A	2017K	384 Pueblo	Utility		4 body	unknown
A	2017L	388 Pueblo	utility		3 body	unknown
A	2015B	10 Pueblo	whiteware	Jemez black on white	1 body	unknown
A	2015H	50 Pueblo	whiteware	Jemez black on white	15 body	unknown
A	2015J	57 Pueblo	whiteware	Jemez black on white	1 body	unknown
A	2015J	62 Pueblo	whiteware	biscuit	4 body	unknown
A	2015J	62 Pueblo	whiteware	biscuit	1 rim	unknown
A	2015J	81 Pueblo	whiteware	biscuit	2 body	unknown
A	2015J	54 Pueblo	whiteware	Jemez black on white	9 body	unknown
A	2015J	56 Pueblo	whiteware	Jemez black on white	6 body	unknown
A	2015J	56 Pueblo	whiteware	Jemez black on white	5 body	unknown
A	2015J	56 Pueblo	whiteware	biscuit	1 body	unknown
A	2017A	306 Pueblo	Whiteware	Biscuit B	1 rim	unknown
A	2017C.3	395 Pueblo	Whiteware		2 body	unknown
A	2017C.3	381 Pueblo	Whiteware		1 body	unknown
A	2017C.3	381 Pueblo	whiteware		1 body	unknown
A	2017C.3	370 Pueblo	Whiteware	Galisteo	2 body	unknown
A	2017C.3	370 Pueblo	Whiteware	Wiyó?	1 body	unknown
A	2017C.3	370 Pueblo	Whiteware	Wiyó?	1 rim	unknown
A	2017C.3	382 Pueblo	Whiteware	matte paint	1 body	unknown
A	2017C.4	328 Pueblo	Whiteware		1 body	unknown
A	2017C.4	325 Pueblo	Whiteware		2 body	unknown
A	2017C.5	358 Pueblo	Whiteware		2 body	unknown
A	2015J	272 Pueblo		polychrome	1 body	unknown
A	2017A	299 Pueblo			1 body	unknown
A	2017C.3	381 Pueblo			15 body	unknown
A	2017C.3	370 Pueblo			3 body	unknown
A	2017C.4	329 Pueblo			1 body	unknown
A	2017C.5	394 Pueblo			2 body	unknown
A	2015J	269 Spanish	Majolica		1 rim	unknown
A	2017K	397 Spanish	Majolica	Mexico City green on cream	1 body	unknown
A	2015H	50 Spanish/European	Majolica	unknown	1 body	unknown
A	2015J	57 Spanish/European	Majolica	unknown	1 body	unknown
A	2015J	62 Spanish/European	Majolica	unknown	5 rim	plate
A	2015J	62 Spanish/European	Majolica	unknown	1 body	unknown
A	2015J	64 Spanish/European	Majolica	unknown	3 rim/body	plate
A	2015J	66 Spanish/European	Majolica	unknown	2 body	plate
A	2015J	56 Spanish/European	Majolica	unknown	2 body	unknown
A	2016B	113 Spanish/European	Majolica	Mexico City green on cream	1 body	plate
A	2016P	171 Spanish/European	Majolica	Mexico City green on cream	2 rim	plate

A	2015J	265	unknown			1 body	unknown
A	2017B	293	unknown			1 body	unknown
A	2017B	292	unknown			1 body	unknown
A	2017B	274	unknown			3 body	unknown
A	2017C.5	376	unknown			1 body	unknown
B	2016D	88	English	porcelain	English	1 body	unknown
B	2016G	119	Japanese	porcelain	unknown	2 body	unknown
B	2015C	17	Pueblo				
B	2015C	24	Pueblo	glazeware	Agua Fria	2 base	bowl
B	2015C	24	Pueblo	glazeware	glaze on red	1 base	bowl
B	2015C	26	Pueblo	glazeware	glaze on red	1 body	unknown
B	2015C	28	Pueblo	glazeware	glaze on red	1 body	unknown
B	2015C	28	Pueblo	glazeware	glaze on white	2 base	unknown
B	2015C	32	Pueblo	glazeware	polychrome	1 rim	bowl
B	2015C	32	Pueblo	glazeware	bichrome	1 body	bowl
B	2015C	32	Pueblo	glazeware	glaze on red	1 base	unknown
B	2015C	32	Pueblo	glazeware	glaze on red	3 rim/body	bowl
B	2015D	67	Pueblo	glazeware	glaze on red	1 rim	bowl
B	2015D	67	Pueblo	glazeware	Pecos polychrome	1 body	bowl
B	2015D	118	Pueblo	glazeware	Pecos polychrome	3 body	bowl
B	2015D	106	Pueblo	glazeware	Pecos polychrome	4 body	bowl
B	2015D	106	Pueblo	glazeware	Pecos polychrome	1 rim	bowl
B	2015K	65	Pueblo	glazeware	Agua Fria	1 body	bowl
B	2015K	55	Pueblo	glazeware	Pecos polychrome	2 body	bowl
B	2015K	73	Pueblo	glazeware	glaze on red	1 rim	unknown
B	2015K	77	Pueblo	glazeware	glaze on red	1 body	bowl
B	2016C	92	Pueblo	glazeware	Pecos polychrome	1 body	bowl
B	2016D	108	Pueblo	glazeware	kotyiti r/y polychrome	3 rim/body	unknown
B	2016D	93	Pueblo	glazeware	kotyiti r/y polychrome	1 body	unknown
B	2016D	110	Pueblo	glazeware	Agua Fria	1 rim	unknown
B	2016D	110	Pueblo	glazeware	kotyiti r/y polychrome	4 body	bowl
B	2016D	95	Pueblo	glazeware	glaze on red	2 rim/body	unknown
B	2016D	95	Pueblo	glazeware	Pecos polychrome	2 body	bowl
B	2016D	101	Pueblo	glazeware	glaze on red	2 body	unknown
B	2016G	190	Pueblo	glazeware	Agua Fria	1 body	bowl
B	2016G	183	Pueblo	glazeware	unknown	1 rim	bowl
B	2016G	137	Pueblo	glazeware	kotyiti r/y polychrome	1 body	bowl
B	2016G	130	Pueblo	glazeware	unknown	1 body	bowl
B	2016G	141	Pueblo	glazeware	Agua Fria	1 body	unknown
B	2016G	172	Pueblo	glazeware	glaze on red	3 rim	unknown
B	2016G	172	Pueblo	glazeware	kotyiti r/y polychrome	3 rim/body	unknown
B	2016G	196	Pueblo	glazeware	unknown	2 body	unknown
B	2016K	191	Pueblo	glazeware	Agua Fria	1 rim	bowl
B	2016K	152	Pueblo	glazeware	tewa polychrome	1 body	unknown
B	2016K	195	Pueblo	glazeware	glaze on red	2 rim	bowl
B	2016K	195	Pueblo	glazeware	glaze on red	5 body	bowl
B	2016K	195	Pueblo	glazeware	kotyiti r/y polychrome	2 rim	unknown
B	2016K	195	Pueblo	glazeware	kotyiti r/y polychrome	6 body	bowl
B	2016K	170	Pueblo	glazeware	kotyiti r/y polychrome	8 body	bowl
B	2016K	170	Pueblo	glazeware	kotyiti r/y polychrome	1 rim	unknown
B	2016K	170	Pueblo	glazeware	glaze on red	1 body	unknown
B	2016K	170	Pueblo	glazeware	glaze on red	1 rim	unknown
B	2016K	170	Pueblo	glazeware	Agua Fria	4 body	bowl
B	2016K	202	Pueblo	glazeware	Pecos polychrome	1 body	unknown
B	2016K	206	Pueblo	glazeware	Pecos polychrome	1 body	unknown
B	2016K	161	Pueblo	glazeware	glaze on red	1 body	unknown
B	2016K	201	Pueblo	glazeware	kotyiti r/y polychrome	1 body	bowl
B	2016K	201	Pueblo	glazeware	glaze on red	1 body	bowl
B	2016K	139	Pueblo	glazeware	Agua Fria	1 body	unknown
B	2016K	142	Pueblo	glazeware	kotyiti r/y polychrome	2 body	bowl
B	2016K	148	Pueblo	glazeware	glaze on red	2 body	unknown
B	2016K	161	Pueblo	glazeware	unknown	2 rim/body	bowl

B	2016K	161 Pueblo	glazeware	kotyiti r/y polychrome	3 body	bowl
B	2016K	161 Pueblo	glazeware	polychrome	1 body	bowl
B	2016K	151 Pueblo	glazeware	glaze on red	1 body	bowl
B	2016K	214 Pueblo	glazeware	kotyiti r/y polychrome	1 rim	unknown
B	2016N	193 Pueblo	glazeware	unknown	1 body	bowl
B	2016N	193 Pueblo	glazeware	kotyiti r/y polychrome	2 rim/base	bowl
B	2016N	193 Pueblo	glazeware	unknown	1 body	bowl
B	2016N	193 Pueblo	glazeware	unknown	1 body	unknown
B	2016N	174 Pueblo	glazeware	glaze on red	1 rim	bowl
B	2016N	174 Pueblo	glazeware	Pecos polychrome	1 rim	bowl
B	2016N	174 Pueblo	glazeware	unknown	3 body	unknown
B	2016N	204 Pueblo	glazeware	glaze on red	5 rim	unknown
B	2016N	204 Pueblo	glazeware	unknown	5 body	unknown
B	2016N	204 Pueblo	glazeware	glaze on red	9 body	bowl
B	2016N	204 Pueblo	glazeware	Pecos polychrome	1 body	bowl
B	2016N	204 Pueblo	glazeware	kotyiti r/y polychrome	6 body	bowl
B	2016N	204 Pueblo	glazeware	unknown	11	unknown
B	2016N	207 Pueblo	glazeware	Agua Fria	1 rim	unknown
B	2016N	207 Pueblo	glazeware	kotyiti r/y polychrome	1 rim	unknown
B	2016N	207 Pueblo	glazeware	Pecos polychrome	1 rim	bowl
B	2016N	207 Pueblo	glazeware	unknown	4 body	unknown
B	2016N	207 Pueblo	glazeware	glaze on red	3 body	unknown
B	2016N	205 Pueblo	glazeware	unknown	1 rim	unknown
B	2016N	205 Pueblo	glazeware	unknown	3 body	bowl
B	2016N	205 Pueblo	glazeware	glaze on red	2 body	bowl
B	2016N	205 Pueblo	glazeware	unknown	4 body	unknown
B	2016N	167 Pueblo	glazeware	polychrome	1 body	bowl
B	2016N	198 Pueblo	glazeware	polychrome	1 body	unknown
B	2016N	198 Pueblo	glazeware	Agua Fria	6 body	unknown
B	2016N	198 Pueblo	glazeware	Agua Fria	5 rim	unknown
B	2016N	198 Pueblo	glazeware	unknown	3 rim/body	unknown
B	2016N	209 Pueblo	glazeware	Pecos polychrome	1 rim	bowl
B	2016N	209 Pueblo	glazeware	unknown	1 rim	bowl
B	2016N	209 Pueblo	glazeware	unknown	2 body	unknown
B	2016N	209 Pueblo	glazeware	unknown	3 body	bowl
B	2016N	209 Pueblo	Glazeware	unknown	1 body	unknown
B	2017F	373 Pueblo	glazeware	glaze on red	1 handle	jar
B	2017F	312 Pueblo	Glazeware	glaze on red	1 rim	unknown
B	2017F	312 Pueblo	Glazeware	polychrome	1 body	unknown
B	2017F	312 Pueblo	Glazeware	polychrome	1 body	bowl
B	2017F	310 Pueblo	Glazeware	glaze on yellow	3 body	unknown
B	2017F	310 Pueblo	Glazeware	glaze on red	1 body	unknown
B	2017F	374 Pueblo	glazeware	polychrome	1 body	unknown
B	2017F	310 Pueblo	glazeware	glaze on red	1 rim	jar
B	EU13	128 Pueblo	glazeware	unknown	2 rim/body	bowl
B	EU13	128 Pueblo	glazeware	unknown	1 rim	unknown
B	EU13	128 Pueblo	glazeware	polychrome	1 body	unknown
B	EU13	128 Pueblo	glazeware	glaze on red	1 body	bowl
B	2017F	310 Pueblo	Gray/whiteware	Matte paint	2 rim	unknown
B	2016G	137 Pueblo	Jeddito	yellow ware	1 body	unknown
B	2016G	137 Pueblo	Jeddito	Hopi/Jeddito	1 base	unknown
B	2016C	97 Pueblo	micaceous	tewa polished mica	1 body	unknown
B	2016G	119 Pueblo	micaceous	tewa unpolished	1 body	unknown
B	2016K	170 Pueblo	micaceous	tewa polished mica	3 body	unknown
B	2016N	209 Pueblo	micaceous	micaceous	3 body	unknown
B	2017F	371 Pueblo	micaceous	micaceous	1 body	unknown
B	2015C	26 Pueblo	micaceous	tewa unpolished mica	1 body	unknown
B	2015C	28 Pueblo	micaceous	tewa unpolished mica	2 body	unknown
B	2015C	30 Pueblo	micaceous	tewa polished mica	4 body	unknown
B	2015C	32 Pueblo	micaceous	tewa unpolished mica	1 body	unknown
B	2015C	32 Pueblo	micaceous	tewa unpolished mica	1 body	unknown
B	2015C	47 Pueblo	micaceous	Sapawe mica	1 body	unknown

B	2015K	73 Pueblo	micaceous	tewa unpolished mica	1 body	unknown
B	2015K	77 Pueblo	micaceous	tewa polished mica	1 body	unknown
B	2016D	101 Pueblo	micaceous	tewa unpolished	1 body	unknown
B	2016G	172 Pueblo	micaceous	Sapawe micaceous	1 body	unknown
B	2016G	172 Pueblo	micaceous	tewa unpolished	1 unknown	body
B	2016G	197 Pueblo	micaceous	tewa polished mica	1 body	unknown
B	2016G	196 Pueblo	micaceous	tewa polished	2 body	unknown
B	2016K	178 Pueblo	micaceous	tewa unpolished mica	12 body	unknown
B	2016K	152 Pueblo	micaceous	tewa unpolished	1 body	unknown
B	2016K	185 Pueblo	micaceous	Sapawe micaceous	2 rim/body	unknown
B	2016K	195 Pueblo	micaceous	tewa polished mica	6 body	unknown
B	2016K	195 Pueblo	micaceous	tewa polished mica	1 rim	unknown
B	2016K	195 Pueblo	micaceous	tewa unpolished	4 rim/body	unknown
B	2016K	201 Pueblo	micaceous	tewa polished mica	2 rim/body	unknown
B	2016K	148 Pueblo	micaceous	tewa polished	1 body	unknown
B	2016N	174 Pueblo	micaceous	tewa polished mica	1 body	unknown
B	2016N	204 Pueblo	micaceous	tewa polished	1 body	unknown
B	2016N	204 Pueblo	micaceous	tewa polished mica	27 body	unknown
B	2016N	204 Pueblo	micaceous	tewa unpolished	12 body	unknown
B	2016N	204 Pueblo	micaceous	tewa polished	2 rim	unknown
B	2016N	207 Pueblo	micaceous	tewa polished mica	1 rim	unknown
B	2016N	207 Pueblo	micaceous	tewa polished	4 body	unknown
B	2016N	205 Pueblo	micaceous	tewa unpolished	3 body	unknown
B	2016N	198 Pueblo	micaceous	tewa unpolished	11 body	unknown
B	2016N	184 Pueblo	micaceous	tewa unpolished	2 body	unknown
B	2016N	209 Pueblo	micaceous	Sapawe micaceous	5 rim/body	unknown
B	2016N	213 Pueblo	micaceous	tewa polished	3 body	unknown
B	2016Q	179 Pueblo	micaceous	tewa polished mica	1 rim	unknown
B	2016Q	188 Pueblo	micaceous	tewa unpolished	2 rim/body	unknown
B	EU13	128 Pueblo	micaceous	tewa polished mica	2 body	unknown
B	2015C	17 Pueblo	Plain	utility	1 body	unknown
B	2015C	24 Pueblo	plain	tewa red	2 body	unknown
B	2015C	24 Pueblo	Plain	utility	4 body	unknown
B	2015C	26 Pueblo	Plain	utility	3 body	unknown
B	2015C	26 Pueblo	Plain	utility	1 body	unknown
B	2015C	28 Pueblo	Plain	utility	2 body	unknown
B	2015C	28 Pueblo	Plain	utility	1 body	unknown
B	2015C	28 Pueblo	Plain	utility	1 rim	unknown
B	2015C	28 Pueblo	Plain	utility	1 body	unknown
B	2015C	28 Pueblo	plain	tewa red	1 body	unknown
B	2015C	30 Pueblo	Plain	utility	1 rim	unknown
B	2015C	30 Pueblo	Plain	utility	2 body	unknown
B	2015C	30 Pueblo	Plain	utility	9 body	unknown
B	2015C	32 Pueblo	Plain	utility	1 body	unknown
B	2015C	32 Pueblo	Plain	utility	7 body	unknown
B	2015C	32 Pueblo	Plain	utility	1 body	unknown
B	2015C	32 Pueblo	Plain	utility	1 body	unknown
B	2015C	34 Pueblo	Plain	utility	2 body	unknown
B	2015C	36 Pueblo	Plain	utility	1 body	unknown
B	2015C	41 Pueblo	Plain	utility	2 body	unknown
B	2015C	41 Pueblo	Plain	utility	1 body	unknown
B	2015C	36 Pueblo	Plain	utility	1 body	unknown
B	2015C	47 Pueblo	Plain	utility	1 rim	unknown
B	2015C	47 Pueblo	Plain	utility	1 body	unknown
B	2015C	47 Pueblo	Plain	utility	1 body	unknown
B	2015C	47 Pueblo	plain	tewa red	1 body	bowl
B	2015C	22 Pueblo	Plain	utility	1 body	unknown
B	2015K	65 Pueblo	Plain	utility	2 body	unknown
B	2015K	60 Pueblo	Plain	utility	1 body	unknown
B	2015K	61 Pueblo	Plain	utility	1 body	unknown
B	2015K	65 Pueblo	Plain	utility	5 body	unknown
B	2015K	73 Pueblo	Plain	utility	1 body	unknown

B	2015K	83 Pueblo	Plain	utility	1 rim	unknown
B	2015K	83 Pueblo	Plain	utility	1 body	unknown
B	2015K	83 Pueblo	Plain	utility	2 body	unknown
B	2015K	77 Pueblo	Plain	utility	1 body	unknown
B	2015K	77 Pueblo	Plain	utility	1 base	unknown
B	2015K	77 Pueblo	Plain	utility	1 body	unknown
B	2016D	100 Pueblo	Plain	utility	1 body	unknown
B	2016D	108 Pueblo	Plain	utility	1 body	unknown
B	2016D	95 Pueblo	Plain	utility	3 body	unknown
B	2016D	95 Pueblo	plain	tewa red	2 body	unknown
B	2016D	101 Pueblo	Plain	utility	4 body	unknown
B	2016G	181 Pueblo	Plain	utility	1 body	unknown
B	2016G	130 Pueblo	plain	tewa red	1 body	bowl
B	2016G	141 Pueblo	Plain	utility	1 body	unknown
B	2016G	172 Pueblo	Plain	utility	4 body	unknown
B	2016G	196 Pueblo	Plain	utility	3 body	unknown
B	2016K	195 Pueblo	Plain	utility	10 body	unknown
B	2016K	170 Pueblo	Plain	utility	4 body	unknown
B	2016K	202 Pueblo	Plain	utility	1 rim	unknown
B	2016K	206 Pueblo	Plain	utility	1 body	unknown
B	2016K	201 Pueblo	Plain	utility	4 base/body	unknown
B	2016K	145 Pueblo	plain	tewa red	1 body	unknown
B	2016K	142 Pueblo	Plain	utility	2 body	unknown
B	2016K	161 Pueblo	Plain	utility	2 body	unknown
B	2016K	151 Pueblo	Plain	utility	1 body	unknown
B	2016K	206 Pueblo	Plain	red	1 body	unknown
B	2016N	193 Pueblo	Plain	utility	4 body	unknown
B	2016N	204 Pueblo	Plain	utility	6 rim	unknown
B	2016N	204 Pueblo	Plain	utility	15 body	unknown
B	2016N	207 Pueblo	Plain	utility	1 rim	unknown
B	2016N	207 Pueblo	Plain	utility	8 body	unknown
B	2016N	198 Pueblo	plain	tewa red	2 body	unknown
B	2016N	184 Pueblo	Plain	utility	3 body	unknown
B	2016N	209 Pueblo	Plain	redware	2 body	unknown
B	2016Q	188 Pueblo	Plain	utility	3 body	unknown
B	2016Q	168 Pueblo	Plain	utility	1 body	unknown
B	2016Q	188 Pueblo	Plain	redware	2 body	unknown
B	2016Q	188 Pueblo	Plain	gray	3 body	bowl
B	2017F	373 Pueblo	Plain	red ware	1 body	unknown
B	2017F	311 Pueblo	plain	red ware	1 body	unknown
B	2017F	312 Pueblo	Plain	redware	1 body	unknown
B	2017F	312 Pueblo	Plain	redware	1 body	unknown
B	2017F	310 Pueblo	Plain	redware	3 body	unknown
B	2017F	310 Pueblo	Plain	redware	1 handle	unknown
B	2017F	371 Pueblo	Plain	redware	1 body	unknown
B	2017F	374 Pueblo	Plain	redware	1 body	unknown
B	EU13	128 Pueblo	plain	tewa red	2 body	unknown
B	EU13	128 Pueblo	Plain	utility	1 body	unknown
B	2016G	156 Pueblo	redware	Redware	1 body	unknown
B	2016K	206 Pueblo	Redware		1 body	unknown
B	2017F	371 Pueblo	Redware	polychrome	1 rim	unknown
B	2016N	204 Pueblo	Sankawi	black on cream	1 body	bowl
B	2016Q	188 Pueblo	Sankawi	black on cream	4 body	bowl
B	2016Q	179 Pueblo	Sankawi	black on cream	2 body	bowl
B	2015C	28 Pueblo	Tewa	tewa bichrome	1 body	unknown
B	2015C	32 Pueblo	Tewa	tewa bichrome	2 body	unknown
B	2015C	47 Pueblo	Tewa	Kapo gray	1 body	unknown
B	2015K	63 Pueblo	Tewa	tewa bichrome	1 body	unknown
B	2015C	24 Pueblo	unknown	unknown	1 body	unknown
B	2015C	24 Pueblo	unknown	unknown	1 body	unknown
B	2015C	30 Pueblo	unknown	unknown	1 body	unknown
B	2015C	41 Pueblo	unknown	unknown	2 body	unknown

B	2015C	47 Pueblo	unknown	unknown	1 body	unknown
B	2015D	106 Pueblo	unknown	unknown	1 body	bowl
B	2015K	65 Pueblo	unknown	unknown	1 body	unknown
B	2016C	97 Pueblo	unknown	unknown	1 body	unknown
B	2016D	110 Pueblo	unknown	unknown	1 body	unknown
B	2016D	95 Pueblo	unknown	unknown	4 body	unknown
B	2016D	95 Pueblo	unknown	unknown	1 rim	unknown
B	2016D	101 Pueblo	unknown	unknown	1 body	unknown
B	2016G	150 Pueblo	unknown	unknown	1 body	unknown
B	2016G	137 Pueblo	unknown	unknown	2 body	bowl
B	2016G	137 Pueblo	unknown	unknown	4 body	unknown
B	2016G	137 Pueblo	unknown	unknown	1 rim	unknown
B	2016G	130 Pueblo	unknown	unknown	1 body	unknown
B	2016G	143 Pueblo	unknown	unknown	4 body	unknown
B	2016G	197 Pueblo	unknown	unknown	1 body	unknown
B	2016K	157 Pueblo	unknown	unknown	1 body	bowl
B	2016K	152 Pueblo	unknown	unknown	1 rim	unknown
B	2016K	152 Pueblo	unknown	bichrome	2 body	bowl
B	2016K	185 Pueblo	unknown	unknown	3 body	unknown
B	2016K	185 Pueblo	unknown	unknown	1 rim	unknown
B	2016K	195 Pueblo	unknown	unknown	1 waster	unknown
B	2016K	170 Pueblo	unknown	unknown	2 rim	unknown
B	2016K	170 Pueblo	unknown	unknown	4 body	unknown
B	2016K	170 Pueblo	unknown	unknown	9 body	unknown
B	2016K	208 Pueblo	unknown	unknown	1 body	unknown
B	2016K	170 Pueblo	unknown	unknown	1 body	unknown
B	2016K	203 Pueblo	unknown	bichrome	1 body	unknown
B	2016K	201 Pueblo	unknown	unknown	5 body	unknown
B	2016K	201 Pueblo	unknown	unknown	1 body	unknown
B	2016K	145 Pueblo	unknown	unknown	1 body	unknown
B	2016K	139 Pueblo	unknown	unknown	1 body	unknown
B	2016K	139 Pueblo	unknown	unknown	1 body	unknown
B	2016K	142 Pueblo	unknown	unknown	1 body	unknown
B	2016K	148 Pueblo	unknown	unknown	2 body	unknown
B	2016K	161 Pueblo	unknown	unknown	4 body	unknown
B	2016K	161 Pueblo	unknown	unknown	1 rim	unknown
B	2016K	151 Pueblo	unknown	unknown	1 body	unknown
B	2016N	193 Pueblo	unknown	unknown	5 body	unknown
B	2016N	174 Pueblo	unknown	unknown	4 body	unknown
B	2016N	204 Pueblo	unknown	unknown	2 body	unknown
B	2016N	205 Pueblo	unknown	bichrome	1 rim	bowl
B	2016N	210 Pueblo	unknown	unknown	1 body	bowl
B	2016N	210 Pueblo	unknown	bichrome	1 body	bowl
B	2016N	210 Pueblo	unknown	unknown	1 body	unknown
B	2016N	204 Pueblo	unknown	unknown	3 rim	unknown
B	2016N	204 Pueblo	unknown	unknown	29	unknown
B	2016N	204 Pueblo	unknown	unknown	23	unknown
B	2016N	204 Pueblo	unknown	unknown	10 body	unknown
B	2016N	207 Pueblo	unknown	unknown	1 rim	unknown
B	2016N	205 Pueblo	unknown	unknown	2 body	bowl
B	2016N	205 Pueblo	unknown	unknown	5 body	unknown
B	2016N	205 Pueblo	unknown	unknown	7 body	unknown
B	2016N	198 Pueblo	unknown	unknown	22 body	unknown
B	2016N	198 Pueblo	unknown	unknown	2 body	unknown
B	2016N	198 Pueblo	unknown	unknown	1 rim	unknown
B	2016N	198 Pueblo	unknown	unknown	1 rim	unknown
B	2016N	198 Pueblo	unknown	unknown	13 body	unknown
B	2016N	184 Pueblo	unknown	unknown	3 body	unknown
B	2016N	184 Pueblo	unknown	unknown	2 rim	unknown
B	2016N	209 Pueblo	unknown	unknown	6 body	unknown
B	2016Q	164 Pueblo	unknown	unknown	1 bowdy	bowl
B	2016Q	164 Pueblo	unknown	unknown	1 rim	bowl

B	2016Q	164 Pueblo	unknown	unknown	1 body	unknown
B	2016Q	168 Pueblo	unknown	unknown	1 body	unknown
B	2016Q	179 Pueblo	unknown	unknown	1 body	unknown
B	2016Q	188 Pueblo	unknown	unknown	1 body	unknown
B	EU13	128 Pueblo	unknown	unknown	6 body	unknown
B	2016G	141 Pueblo	unknown	unknown	1 body	unknown
B	2016G	172 Pueblo	unknown	unknown	1 body	unknown
B	2016G	172 Pueblo	unknown	unknown	9 body	unknown
B	2016G	172 Pueblo	unknown	unknown	2 body	unknown
B	2016K	195 Pueblo	unknown	unknown	16 body	unknown
B	2016G	137 Pueblo	utility	utility	3 body	unknown
B	2016K	206 Pueblo	Utility		5 body	unknown
B	2016N	210 Pueblo	utility	utility	3 rim/body	unknown
B	2016N	213 Pueblo	Utility		1 body	unknown
B	2016Q	188 Pueblo	Utility		4 body	unknown
B	2016Q	188 Pueblo	Utility		1 rim	unknown
B	2016Q	188 Pueblo	Utility		2 body	unknown
B	2016Q	188 Pueblo	Utility		6 body	unknown
B	2017F	373 Pueblo	utility	black	3 body	unknown
B	2017F	312 Pueblo	Utility		1 rim	unknown
B	2017F	312 Pueblo	Utility		1 body	unknown
B	2017F	310 Pueblo	Utility		15 body	unknown
B	2017F	371 Pueblo	Utility		3 Body	unknown
B	2017F	371 Pueblo	Utility		4 body	unknown
B	2017F	371 Pueblo	Utility		2 body	unknown
B	2017F	310 Pueblo	Utility		2 body	unknown
B	2017M	408 Pueblo	Utility		1 rim	unknown
B	2017M	408 Pueblo	Utility		1 rim	unknown
B	2015K	77 Pueblo	whiteware	biscuit	1 rim	unknown
B	2016G	130 Pueblo	whiteware	Jemez black on white	1 body	unknown
B	2016N	174 Pueblo	whiteware	Jemez black on white	1 body	unknown
B	2016Q	188 Pueblo	Whiteware		6 body	bowl
B	2017F	310 Pueblo	Whiteware	Biscuit B	2 body	unknown
B	2016N	209 Spanish	olive jar		2 body	jar
B	2015C	47 Spanish/European	Majolica	unknown	2 body	unknown
B	2016N	159	porcelain	brown glazed	3 rim/body	unknown
D	2017H	289 Pueblo	Glazeware	glaze on red	1 body	unknown
D	2017H	287 Pueblo	Glazeware	unknown	3 body	unknown
D	2017H	285 Pueblo	plain		1 body	unknown
D	2017H	289 Pueblo	Plain	redware	1 body	unknown
D	2017H	289 Pueblo	Plain	redware	1 body	unknown
D	2017G	317 unknown			1 body	unknown
E	2017D	321 Pueblo	Redware	Redware	1 body	unknown
E	2017D	321 Pueblo	utility		5 body	unknown

Fauna

Unit	Excavation Unit	Context	Count
A	2015A	11	1
A	2015A	12	5
A	2015A	15	2
A	2015A	18	1
A	2015A	21	2
A	2015A	21	8
A	2015A	21	1
A	2015A	25	16
A	2015A	27	13
A	2015A	29	11
A	2015B	2	1
A	2015B	5	2
A	2015B	7	3
A	2015B	7	1
A	2015B	10	5
A	2015G	35	6
A	2015I	87	1
A	2015I	102	7
A	2015I	102	8
A	2015I	103	2
A	2015I	111	1
A	2015I	122	7
A	2015I	127	3
A	2015I	127	3
A	2015J	54	57
A	2015J	54	19
A	2015J	56	217
A	2015J	56	
A	2015J	57	299
A	2015J	62	1
A	2015J	62	489
A	2015J	64	153
A	2015J	66	212
A	2015J	66	231
A	2015J	69	243
A	2015J	70	70
A	2015J	71	92
A	2015J	71	11
A	2015J	74	169
A	2015J	76	48
A	2015J	78	33
A	2015J	81	110
A	2015J	81	39
A	2016B	86	3
A	2016B	90	1

A	2016B	91	2
A	2016B	91	6
A	2016B	96	45
A	2016B	107	79
A	2016B	113	29
A	2016B	113	20
A	2016B	114	7
A	2016B	114	1
A	2016B	123	3
A	2016B	123	1
A	2016B	123	9
A	2016E	134	1
A	2016E	138	10
A	2016E	138	11
A	2016E	138	5
A	2016E	144	5
A	2016E	149	15
A	2016E	149	7
A	2016E	153	9
A	2016E	165	26
A	2016E	176	22
A	2016E	189	2
A/B	2016P	171	14
A/B	2016P	180	1
B	2015C	24	2
B	2015C	26	1
B	2015C	28	5
B	2015C	28	2
B	2015C	28	1
B	2015C	30	1
B	2015C	32	9
B	2015C	36	3
B	2015C	36	1
B	2015C	38	1
B	2015C	41	1
B	2015K	63	4
B	2015K	65	1
B	2015K	65	5
B	2015K	73	2
B	2015K	77	4
B	2015K	83	17
B	2016D	88	1
B	2016D	95	4
B	2016D	101	17
B	2016D	108	11.64
B	2016D	110	2
B	2016D	110	1
B	2016G	196	1

B	2016K	139	1
B	2016K	142	8
B	2016N	154	1
B	2016N	154	1
B	2016N	159	2
B	2016N	167	2
B	2016N	174	57
B	2016N	184	89
B	2016Q	179	7
Total		2500.64	

Lithics

Unit	Excavation Unit	Context	Tool type	Type	Material	Debitage type	Count
A	2015A	25	core, multidirectional	FST	Chert		1
A	2015A	1	Modified Debris	FST	Chert	Angular Shatter	1
A	2015A	4	Modified Flake	FST	Quartz	Flake	1
A	2015A	4		FLS	CCS	Flake	1
A	2015A	4		FLS	CCS	Angular Shatter	1
A	2015A	15		FLS	CCS	Angular Shatter	1
A	2015A	6		FLS	Chalcedony	Angular Shatter	1
A	2015A	12		FLS	Chalcedony	Flake	1
A	2015A	6		FLS	Chert	Angular Shatter	1
A	2015A	25		FLS	Chert	Flake	1
A	2015A	4		FLS	Chert (jasper)	Angular Shatter	1
A	2015A	1		FLS	Quartz	Flake	1
A	2015B	7		FLS	Chalcedony	Flake	1
A	2015I	102		FLS	CCS	Angular Shatter	1
A	2016B	96	Modified Flake	FST	Quartz	Flake	1
A	2016B	86		FLS	CCS	Angular Shatter	1
A	2016B	86		FLS	CCS	Angular Shatter	1
A	2016B	90		FLS	CCS	Angular Shatter	1
A	2016B	123		FLS	CCS	Bipolar Flake	1
A	2016B	123		FLS	CCS	Angular Shatter	1
A	2016B	123		FLS	CCS	Angular Shatter	1
A	2016B	86		FLS	Chalcedony	Angular Shatter	1
A	2016B	86		FLS	Chalcedony	Angular Shatter	1
A	2016B	86		FLS	Chalcedony	Angular Shatter	1
A	2016B	90		FLS	Chalcedony	Angular Shatter	1
A	2016B	91		FLS	Chalcedony	Angular Shatter	1
A	2016B	91		FLS	Chalcedony	Flake	1
A	2016B	107		FLS	Chalcedony	Angular Shatter	1
A	2016B	107		FLS	Chalcedony	Angular Shatter	1
A	2016B	86		FLS	Chert (jasper)	Angular Shatter	1
A	2016B	96		FLS	Quartz	Flake	1
A	2016E	165	Modified Bipolar Flake	FST	Chalcedony	Bipolar Flake	1
A	2016E	153		FLS	CCS	Flake	1
A	2016E	144		FLS	Chalcedony	Flake	1
A	2016E	144		FLS	Chalcedony	Angular Shatter	1
A	2016E	144		FLS	Chalcedony	Angular Shatter	1
A	2016E	153		FLS	Chalcedony	Bipolar Flake	1
A	2016E	176		FLS	Chalcedony	Flake	1
A	2016E	176		FLS	Chert	Angular Shatter	1
A	2016E	149		FLS	Quartz	Flake	1
A	2016P	163	Modified Flake	FST	CCS	Flake	1
A	2017A	306		FLS	Obsidian	Flake	1
A	2017B	274		FLS	CCS	Bipolar Flake	1
A	2017B	293		FLS	CCS	Angular Shatter	1
A	2017B	293		FLS	CCS	Angular Shatter	1

A	2017B	294		FLS	Chalcedony	Bipolar Flake	1
A	2017B	294		FLS	Chalcedony	Flake	1
A	2017B	294		FLS	Chalcedony	Angular Shatter	1
A	2017B	274		FLS	Chert	Bipolar Flake	1
A	2017B	292		FLS	Limestone	Angular Shatter	1
A	2017C.1	316	Core, bipolar	FST	CCS		1
A	2017C.1	315		FLS	CCS	Angular Shatter	1
A	2017C.1	314		FLS	Chalcedony	Angular Shatter	1
A	2017C.1	314		FLS	Chalcedony	Bipolar Flake	1
A	2017C.1	314		FLS	Chalcedony	Flake	1
A	2017C.1	314		FLS	Chert	Flake	1
A	2017C.1	314		FLS	Chert	Bipolar Flake	1
A	2017C.1	315		FLS	Quartz	Angular Shatter	1
A	2017C.1	367		FST	Quartz	Bipolar Flake	1
A	2017C.3	395	Modified Angular Shatter	FST	Obsidian	Angular Shatter	1
A	2017C.3	386		FLS	Chalcedony	Flake	1
A	2017C.3	370		FLS	Obsidian	Angular Shatter	1
A	2017C.4	343	Core, uni-directional	FST	Chalcedony		1
A	2017C.4	302		FLS	CCS	Flake	1
A	2017C.4	325		FLS	Chalcedony	Bipolar Flake	1
A	2017C.4	339		FLS	Chert	Angular Shatter	1
A	2017C.4	325		FLS	Obsidian	Flake	1
A	2017C.5	341		FLS	CCS	Bipolar Flake	1
A	2017C.5	349		FLS	CCS	Flake	1
A	2017C.5	353		FLS	Chalcedony	Flake	1
A	2017K	384		FLS	Chert	Flake	1
B	2015C	32		FLS	Chert	Angular Shatter	1
B	2015D	89		FLS	CCS	Flake	1
B	2015D	89		FLS	CCS	Flake	1
B	2015D	106		FLS	Limestone	Angular Shatter	1
B	2015D	118		FLS	Quartzite	Flake	1
B	2015K	63	core, multidirectional	FST	Chert		1
B	2015K	63		FLS	Quartz	Angular Shatter	1
B	2016D	93	Biface	FST	Obsidian		1
B	2016D	110	Modified Flake	FST	Quartzite	Flake	1
B	2016D	88		FLS	Chalcedony	Angular Shatter	1
B	2016G	183	Modified Angular Shatter	FST	CCS	Angular Shatter	1
B	2016G	172		FLS	CCS	Angular Shatter	1
B	2016G	172		FLS	CCS	Angular Shatter	1
B	2016G	172		FLS	Chalcedony	Flake	1
B	2016G	166		FLS	Chert	Angular Shatter	1
B	2016G	166		FLS	Chert	Angular Shatter	1
B	2016G	192		FLS	Chert	Angular Shatter	1
B	2016K	161	Modified Bipolar Flake	FST	CCS	Bipolar Flake	1
B	2016K	157		FLS	CCS	Angular Shatter	1
B	2016K	157		FLS	CCS	Bipolar Flake	1
B	2016K	170		FLS	CCS	Flake	1
B	2016K	178		FLS	CCS	Angular Shatter	1

B	2016K	202		FLS	CCS	Flake	1
B	2016K	151		FLS	Chalcedony	Angular Shatter	1
B	2016K	151		FLS	Chalcedony	Angular Shatter	1
B	2016K	152		FLS	Chalcedony	Angular Shatter	1
B	2016K	170		FLS	Chalcedony	Bipolar Flake	1
B	2016K	148		FLS	Chert	Angular Shatter	1
B	2016K	170		FLS	Chert	Flake	1
B	2016K	178		FLS	Chert	Flake	1
B	2016N	174		FLS	CCS	Angular Shatter	1
B	2016N	184		FLS	CCS	Flake	1
B	2016N	213		FLS	Chalcedony	Angular Shatter	1
B	2016N	213		FLS	Chalcedony	Angular Shatter	1
B	2016N	162		FLS	Quartz	Flake	1
B	2017F	310		FLS	CCS	Angular Shatter	1
B	2017F	311		FLS	CCS	Flake	1
B	2017F	374		FLS	CCS	Flake	1
B	2017F	374		FLS	CCS	Flake	1
B	2017F	373		FLS	Chalcedony	Angular Shatter	1
B	2017F	310		FLS	Chert	Flake	1
B	2017F	311		FLS	Chert	Angular Shatter	1
B	2017F	373		FLS	Chert	Flake	1
B	2017F	311		FLS	Quartz	Flake	1
D	2017G	282	Modified Bipolar Flake	FST	Chalcedony	Bipolar Flake	1
D	2017G	282		FLS	Chalcedony	Bipolar Flake	1
D	2017G	280		FLS	Limestone	Flake	1
D	2017G	280		FLS	Limestone	Flake	1
D	2017G	280		FLS	Limestone	Angular Shatter	1
D	2017G	319		FLS	Limestone	Flake	1
D	2017H	289	core, multidirectional	FST	Chalcedony		1
D	2017H	289	Strike-a-light flint	FST	Chert	Angular Shatter	1
D	2017H	289	utilized angular shatter	FST	Obsidian	Angular Shatter	1
D	2017H	308		FLS	Chalcedony	Angular Shatter	1
Midden	2015H	37		FLS	Chert	Flake	1
Midden	2015H	50		FLS	Quartzite	Flake	1
Midden	2015J	70	Biface	FST	Chalcedony		1
Midden	2015J	267	Core, Bipolar	FST	Obsidian		1
Midden	2015J	56	core, multidirectional	FST	Obsidian		1
Midden	2015J	56	Drill	FST	Obsidian		1
Midden	2015J	81	End Scraper	FST	Chalcedony	Flake	1
Midden	2015J	81	Gunflint	FST	CCS		1
Midden	2015J	62	Modified Flake	FST	Chalcedony	Flake	1
Midden	2015J	260	Projectile Point	FST	Obsidian		1
Midden	2015J	57		FLS	CCS	Flake	1
Midden	2015J	57		FLS	CCS	Flake	1
Midden	2015J	57		FLS	CCS	Angular Shatter	1
Midden	2015J	57		FLS	CCS	Angular Shatter	1
Midden	2015J	70		FLS	CCS	Flake	1
Midden	2015J	74		FLS	CCS	Flake	1

Midden	2015J	74	FLS	CCS	Angular Shatter	1
Midden	2015J	74	FLS	CCS	Angular Shatter	1
Midden	2015J	76	FLS	CCS	Flake	1
Midden	2015J	81	FLS	CCS	Flake	1
Midden	2015J	57	FLS	Chalcedony	Angular Shatter	1
Midden	2015J	66	FLS	Chalcedony	Bipolar Flake	1
Midden	2015J	66	FLS	Chalcedony	Flake	1
Midden	2015J	66	FLS	Chalcedony	Angular Shatter	1
Midden	2015J	66	FLS	Chalcedony	Flake	1
Midden	2015J	66	FLS	Chalcedony	Angular Shatter	1
Midden	2015J	260	FLS	Chalcedony	Angular Shatter	1
Midden	2015J	54	FLS	Chalcedony (moss agate)	Flake	1
Midden	2015J	64	FLS	Chalcedony (moss agate)	Flake	1
Midden	2015J	52	FLS	Chert	Angular Shatter	1
Midden	2015J	56	FLS	Chert	Flake	1
Midden	2015J	56	FLS	Chert	Flake	1
Midden	2015J	57	FLS	Chert	Flake	1
Midden	2015J	62	FLS	Chert	Angular Shatter	1
Midden	2015J	64	FLS	Chert	Flake	1
Midden	2015J	66	FLS	Chert	Angular Shatter	1
Midden	2015J	74	FLS	Chert	Flake	1
Midden	2015J	74	FLS	Chert	Angular Shatter	1
Midden	2015J	74	FLS	Chert	Angular Shatter	1
Midden	2015J	76	FLS	Greenstone	Angular Shatter	1
Midden	2015J	52	FLS	Limestone	Flake	1
Midden	2015J	54	FLS	Limestone	Flake	1
Midden	2015J	57	FLS	Limestone	Angular Shatter	1
Midden	2015J	62	FLS	Limestone	Flake	1
Midden	2015J	57	FLS	Madera Chert	Bipolar Flake	1
Midden	2015J	57	FLS	Obsidian	Angular Shatter	1
Midden	2015J	57	FLS	Quartz	Flake	1
Midden	2015J	57	FLS	Quartz	Angular Shatter	1
Midden	2015J	54	FLS	Quartzite	Flake	1
Total						174

Metal

Unit	Excavation Unit	Context	Class	Type	Material	Count
A	2015A	25	hardware	nail	ferrous	1
A	2015H	44	other	slag	mix	1
A	2015J	54	undiff	unknown	ferrous	1
A	2015J	56	domestic	pin	ferrous	1
A	2015J	62	hardware	nail	ferrous	5
A	2015J	62	hardware	tack	ferrous	1
A	2015J	64	undiff	unknown	lead	1
A	2015J	64	hardware	nail	ferrous	2
A	2015J	64	undiff	unknown	copper	1
A	2015J	66	unknown	unknown	ferrous	4
A	2015J	66	unknown	unknown	copper	1
A	2015J	66	domestic	pin	ferrous	2
A	2015J	66	hardware	tack	ferrous	1
A	2015J	66	modern	wire	copper	1
A	2015J	69	hardware	tack	ferrous	1
A	2015J	69	undiff	unknown	ferrous	1
A	2015J	71	undiff	unknown	unknown	1
A	2015J	81	hardware	nail	ferrous	1
A	2015J	81	undiff	unknown	copper	4
A	2017A	261			ferrous	1
A	2017C.3	395			ferrous	2
B	2015C	17	other	slag	mix	2
B	2016C	92	personal	buckle	ferrous	2
B	2016C	92	other	slag	mix	3
B	2016C	92	domestic	bottle cap	ferrous	1
B	2016C	92	other	undifferentiated	ferrous	3
B	2016C	92	domestic	bottle cap	ferrous	1
B	2016C	92	domestic	pull tab	aluminum	2
B	2016C	92	weapon	bullet casing	copper	1
B	2016C	92	domestic	tinfoil	aluminum	1
B	2016D	93	hardware	nail	ferrous	1
B	2016D	101	other	slag	mix	2
B	2016G	119	hardware	nail	ferrous	1
B	2016G	119	hardware	screw	ferrous	1
B	2016G	119	hardware	u-tack	ferrous	1
B	2016G	119	hardware	thumb tack	ferrous	1
B	2016G	130	hardware	nail	ferrous	1
B	2016G	130	other	slag	mix	3
B	2016G	183	other	slag	mix	64
B	2016G	197	other	slag	mix	2
B	2016N	174	hardware	screw	ferrous	1
B	2016N	174	hardware	washer	ferrous	1
B	2016N	184	personal	galloon	copper	1
B	2016N	184	other	slag	mix	9
A/B	2016P	171	personal	chain	ferrous	1
B	2016Q	188	other	slag	mix	1

B	2017F	373	Copper	2
B	2017M	408	ferrous	1

Glass

Unit	Excavation Unit	Context	Count	Color	Portion
A	2015B		2	1 clear-solarized	body
A	2015I		102	1 aqua	body
A	2015J		69	2 clear-solarized	indeterminate
A	2015J		260	1 brown	fragment
A	2016B		86	2 amber	body
A	2016E		194	1 clear	body
A	2016E		134	1 clear	body
A	2016P		155	7 clear	body
A	2017C.5		404	1 clear	fragment
B	2015D		67	1 clear-solarized	body
B	2015D		109	1 clear	lip
B	2015D		89	3 amber	body
B	2015D		89	3 clear	body
B	2016C		112	1 clear	body
B	2016C		92	2 clear	body
B	2016C		92	10 green	body
B	2016C		92	160 amber	body/base
B	2016C		92	81 clear	body
B	2016C		92	11 clear	body
B	2016C		92	11 clear	body
B	2016C		92	363 clear	body
B	2016C		92	1 clear	base
B	2016C		92	1 clear	base
B	2016C		92	2 clear	base
B	2016C		92	2 clear	neck
B	2016C		92	8 clear	base
B	2016C		92	12 clear	lip
B	2016C		212	1 clear	lip/neck
B	2016D		88	2 amber	body/lip
B	2016D		88	7 clear	body
B	2016D		88	1 clear	lip
B	2016G		132	1 aqua	body
B	2016G		132	1 clear	body
B	2016G		133	1 clear	body
B	2016G		130	1 clear	lip
B	2016G		130	1 aqua	body
B	2016G		120	5 clear	body
B	2016G		120	1 aqua	body
B	2016G		143	1 clear	body
B	2016G		119	1 aqua	body
B	2016G		119	27 clear	body/lip/base
B	2016K		136	1 clear	neck
B	2016N		154	1 clear	base
B	2016N		159	3 clear	base
B	2016N		159	1 aqua	body

B	2016N	159	1 clear	body
B	2016N	159	1 clear	body
Total			749	

Minerals

Unit	Excavation Unit	Context	Material	Count
A	2015A	11	selenite	1
A	2015A	21	selenite	1
A	2015A	21	selenite	6
A	2015A	25	selenite	1
A	2015A	29	selenite	4
A	2015B	7	selenite	10
A	2015B	10	selenite	7
A	2015B	14	selenite	1
A	2015I	122	selenite	1
A	2015I	111	selenite	1
A	2015J	57	selenite	15
A	2015J	64	selenite	102
A	2015J	62	selenite	100
A	2015J	66	selenite	45
A	2015J	66	selenite	102
A	2015J	69	selenite	30
A	2015J	70	selenite	6
A	2015J	71	selenite	3
A	2015J	74	selenite	27
A	2015J	81	selenite	11
A	2015J	78	selenite	2
A	2015J	64	selenite	2
A	2015J	260	Selenite	12
A	2015J	268	Selenite	3
A	2015J	267	Selenite	3
A	2015J	271	Selenite	1
A	2015J	269	Selenite	1
A	2016B	113	selenite	3
A	2016B	107	selenite	3
A	2016E	176	selenite	13
A	2016E	165	selenite	14
A	2016E	182	selenite	5
A	2017A	306	selenite	1
A	2017A	327	Selenite	4
A	2017A	323	Selenite	2
A	2017A	355	Selenite	1
A	2017A	338	Selenite	3
A	2017A	295	Selenite	1
A	2017A	332	Selenite	1
A	2017A	340	Selenite	7
A	2017A	332	Selenite	9
A	2017B	274	Selenite	1
A	2017C.2	407	selenite	1
A	2017C.2	396	selenite	4
A	2017C.3	405	selenite	8
A	2017C.3	395	selenite	6

A	2017C.3	382 Selenite	1
A	2017C.3	381 Selenite	2
A	2017C.3	386 Selenite	2
A	2017C.3	370 Selenite	5
A	2017C.4	325 Selenite	2
A	2017C.4	313 Selenite	1
A	2017C.5	404 selenite	1
A	2017C.5	403 Selenite	1
A	2017C.5	394 Selenite	3
A	2017C.5	337 fire-affected rock	3
A	2017K	398 selenite	1
A	2017K	392 Selenite	11
A	2017K	397 Selenite	4
A	2017K	384 Selenite	7
A	2017K	397 Selenite	2
A	2017K	361 Selenite	1
A	2017K	398 selenite	10
A	2017L	388 selenite	6
B	2016G	172 selenite	1
B	2016K	195 selenite	1
B	2016N	204 selenite	3
B	2016N	198 selenite	1

Samples

Unit	Excavation Unit	Context	Sample Type
A	2015A		18 float
A	2015A		12 float
A	2015A		25 float
A	2015A		31
A	2015A		25
A	2015E		16 soil
A	2015E		16 soil
A	2015E		16 soil
A	2015G		216 Pollen colum sample 1
A	2015G		225 pollen column sample 10
A	2015G		226 pollen column sample 11
A	2015G		227 pollen column sample 12
A	2015G		228 pollen column sample 13
A	2015G		229 pollen column sample 14
A	2015G		230 pollen column sample 15
A	2015G		231 pollen column sample 16
A	2015G		232 pollen column sample 17
A	2015G		233 pollen column sample 18
A	2015G		234 pollen column sample 19
A	2015G		217 pollen column sample 2
A	2015G		235 pollen column sample 20
A	2015G		236 pollen column sample 21
A	2015G		237 pollen column sample 22
A	2015G		238 pollen column sample 23
A	2015G		239 pollen column sample 24
A	2015G		218 pollen column sample 3
A	2015G		219 pollen column sample 4
A	2015G		220 pollen column sample 5
A	2015G		221 pollen column sample 6
A	2015G		222 pollen column sample 7
A	2015G		223 pollen column sample 8
A	2015G		224 pollen column sample 9
A	2015G		35
A	2015I		127 geochemical
A	2015I		127 phytolith
A	2015J		272 Float
A	2015J		269 Float
A	2015J		262 Float
A	2015J		268 Float
A	2015J		271 Float
A	2015J		270 Float
A	2015J		267 Float
A	2015J		264 Float
A	2015J		273 Float
A	2015J		263 Float
A	2015J		265 Float

A	2015J	266	Float
A	2015J	69	float
A	2015J	62	float
A	2015J	74	float
A	2015J	64	float
A	2015J	54	float
A	2015J	57	float
A	2015J	56	float
A	2015J	56	float
A	2015J	56	float
A	2015J	57	float
A	2015J	66	float
A	2015J	66	float
A	2015J	262	Phytolith
A	2015J	263	Phytolith
A	2015J	264	Phytolith
A	2015J	265	Phytolith
A	2015J	266	Phytolith
A	2015J	267	Phytolith
A	2015J	268	Phytolith
A	2015J	268	Phytolith
A	2015J	269	Phytolith
A	2015J	269	Phytolith
A	2015J	271	Phytolith
A	2015J	270	Phytolith
A	2015J	272	Phytolith
A	2015J	273	Phytolith
A	2016B	123	phytolith
A	2016E	144	float
A	2016E	138	float
A	2016E	153	float
A	2016E	182	phytolith
A	2016E	182	pollen
A	2016E	165	
A	2017A	322	Float
A	2017A	332	Float
A	2017B	294	Float
A	2017B	294	Float
A	2017C.2	407	Pollen/Phytolith
A	2017C.2	407	Pollen/Phytolith
A	2017C.2	396	Soil
A	2017C.3	395	Float
A	2017C.3	400	Soil
A	2017C.3	395	Soil
A	2017C.3	405	Soil
A	2017C.3	410	Soil
A	2017C.4	302	Float
A	2017C.4	325	Float

A	2017C.5	337 Float
A	2017C.5	349 Float
A	2017C.5	354 Float
A	2017C.5	341 Float
A	2017C.5	337 Float
A	2017C.5	352 float
A	2017C.5	352 float
A	2017C.5	337 Pollen/Phytolith
A	2017C.5	393 Pollen/Phytolith
A	2017C.5	337 Soil
A	2017C.5	337 Soil
A	2017K	397 float
A	AY10F	186 phytolith
A	AY10F	186 phytolith
A	AY10F	186 phytolith
A		527 pollen
B	2015C	30 float
B	2015C	34 float
B	2015C	49 float
B	2015C	32 float
B	2015C	38 float
B	2015C	30 parasite
B	2015C	215 parasite
B	2015C	49 parasite
B	2015C	30 parasite
B	2015C	30 pollen
B	2015C	30 pollen
B	2015C	251 soil
B	2015C	241 soil
B	2015D	67
B	2015K	73 parasite
B	2016D	108 float
B	2016D	101 float
B	2016D	101 float
B	2016D	110 soil
B	2016G	172 coprolite
B	2016G	156 Float
B	2016G	166 float
B	2016G	143 float
B	2016G	130 float
B	2016G	130 float
B	2016G	141 float
B	2016G	158 float
B	2016G	133 float
B	2016G	192 flotation
B	2016G	130 flotation
B	2016G	130 phytolith
B	2016G	130 pollen

B	2016G	166 soil
B	2016G	240 soil
B	2016G	244 soil
B	2016G	243 soil
B	2016G	245 soil
B	2016G	246 soil
B	2016G	247 soil
B	2016G	248 soil
B	2016G	249 soil
B	2016G	250 soil
B	2016G	143
B	2016K	178 float
B	2016K	170 float
B	2016K	195 float
B	2016K	157 float
B	2016K	152 Float
B	2016K	142 float
B	2016K	161 float
B	2016K	201 float
B	2016K	161 float
B	2016N	207 float
B	2016N	204 float
B	2017F	311 Pollen/Phytolith
B	2017F	311 Pollen/Phytolith
B	2017F	372 Pollen/Phytolith
B	2017F	371 Pollen/Phytolith
B	2017F	374 Pollen/Phytolith
B	2017F	374 Pollen/Phytolith
B	2017M	417 Burnt Dung
B	2017M	408 Float
B	2017M	408 float
B	2017M	414 Micromorphology
B	2017M	414 Micromorphology
B	2017M	408 Pollen/Phytolith
B	2017M	408 Pollen/Phytolith
B	2017M	414 Pollen/Phytolith
B	2017M	414 Pollen/Phytolith
D	2017G	281 Float
D	2017H	287 Float
D	2017H	284 Pollen/Phytolith
D	2017H	285 Pollen/Phytolith

D	2017H	309	Pollen/Phytolith
D	2017H	307	Pollen/Phytolith
D	2017H	307	Pollen/Phytolith
D	2017H	307	Pollen/Phytolith
D	2017H	309	Pollen/Phytolith