

MUSEUM OF NEW MEXICO

OFFICE OF ARCHAEOLOGICAL STUDIES

A Plan for Additional
Data Recovery at LA 391,
U.S. 84/285 Santa Fe to Pojoaque Corridor,
Santa Fe County, New Mexico

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Archaeology Notes 312

ADMINISTRATIVE SUMMARY

In December 2002, the New Mexico State Highway and Transportation Department (NMSHTD) requested that the Museum of New Mexico's Office of Archaeological Studies (OAS) prepare a plan for additional data recovery investigations at site LA 391 prior to planned improvements to U.S. 84/285. Prior data recovery investigations at LA 391 were conducted in the northern part of the site, west of the existing highway, on private land and land acquired by the NMSHTD from private sources. Proposed data recovery investigations will be conducted in the southern part of the site on land belonging to the Pueblo of Tesuque, and in the eastern part of the site, beneath existing drive lanes of U.S. 84/285, on NMSHTD land and Pueblo of Tesuque land. This document is submitted in fulfillment of that request. Like a similar plan prepared for LA 111333, this plan is an addendum to the prehistoric data recovery plan for prehistoric sites in the U.S. 84/285 Santa Fe to Pojoaque Corridor project area. Data recovery efforts at LA 391 are linked

to a research orientation and to field and laboratory data recovery methods common to prehistoric sites in the U.S. 84/285 Santa Fe to Pojoaque Corridor project area, including those that framed previous investigations at LA 391. The research orientation focuses on, but is not limited to, inter- and intra-regional social and ideological relationships, community formation, economic and subsistence strategies, and ethnic identities in the Tewa Basin. Because the data recovery investigations at LA 391 planned for 2003 will expand on previous data recovery efforts at the site, and because the project data recovery plan and research design was approved by management and review agencies prior to earlier investigations at LA 391, this plan does not present the project research orientation in detail. This plan focuses on general and site-specific data recovery field methods and strategies.

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INTRODUCTION TO THE PROJECT

Jeffrey L. Boyer

Between 1995 and 1998, archaeological survey was conducted along 22.4 km (14 miles) of U.S. 84/285 between Santa Fe and Pojoaque, Santa Fe County, New Mexico (Hohmann et al. 1998). Survey was conducted at the request of the New Mexico State Highway and Transportation Department (NMSHTD) in preparation for planned reconstruction of the highway. Twenty-seven previously recorded archaeological sites were relocated, 29 previously unrecorded sites were recorded, and five traditional cultural properties (TCPs) and 311 isolated occurrences were recorded during survey.

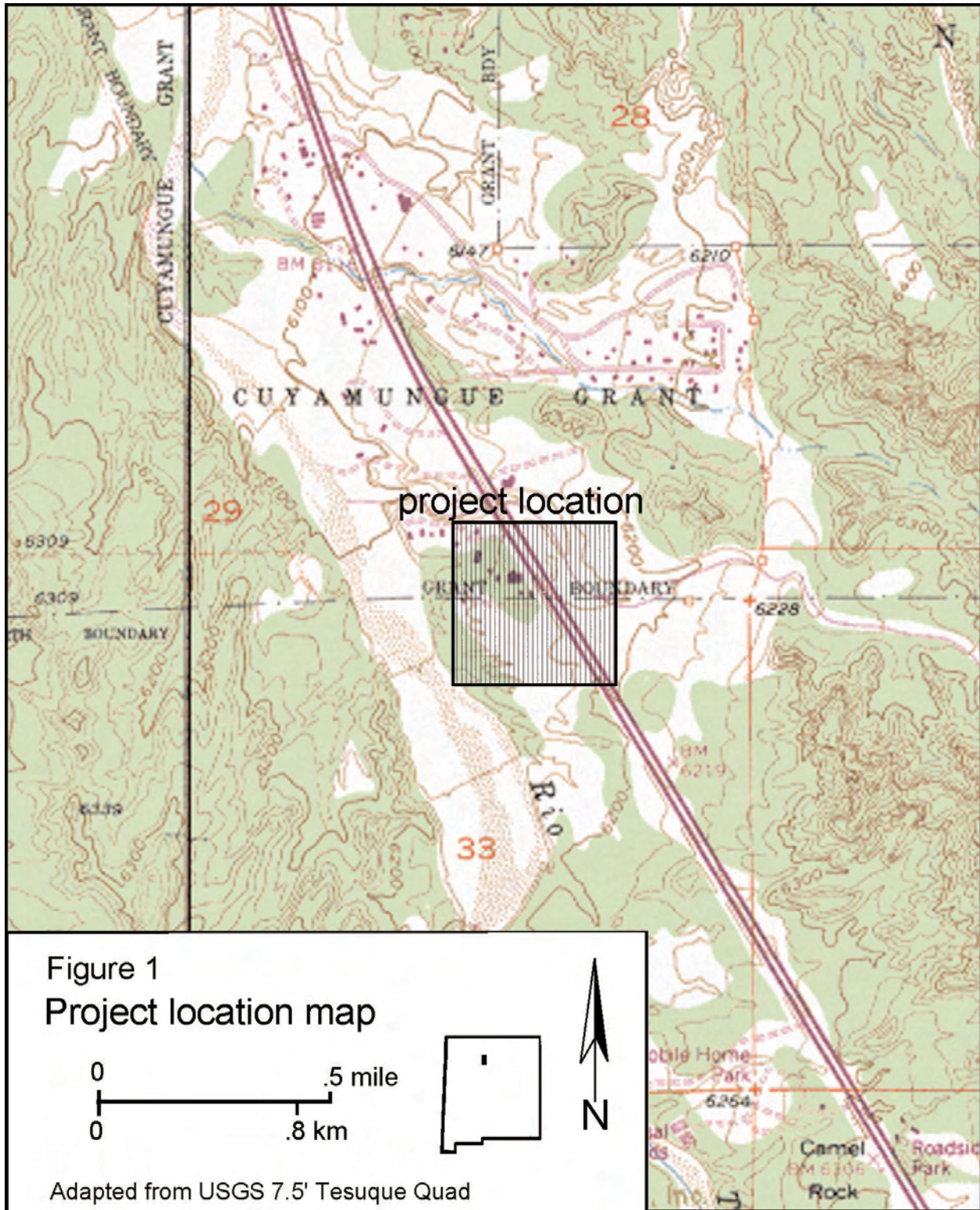
One of the sites, LA 391, is present within and adjacent to existing highway right-of-way along the northern boundary of the Pueblo of Tesuque Grant (Fig. 1). The northern part of the site is on NMSHTD land acquired from public and private sources; the southern part of the site is on land belonging to the Pueblo of Tesuque. Appendix 1 lists the land status, appropriate permits, mile markers, UTM, and legal locations of LA 391.

At the request of the NMSHTD, a testing program was initiated at LA 391 by the Museum of New Mexico's Office of Archaeological Studies (OAS) in October 1999 (Lakatos 2000). Test excavations consisted of four mechanically excavated trenches and two hand-excavated 1-by-1-m test units in the parking lot area, and a series of auger tests in parallel transects within the existing right-of-way. They revealed the presence of a thick (up to 40 cm) stratum of sediment containing charcoal, ashy deposits, and numerous artifacts. They also revealed the presence of several small, subsurface pit features containing burned rocks, charcoal, ash, and artifacts. Prehistoric ceramic types recovered indicated that the site was occupied in the Late Developmental period of the region's prehistoric Puebloan occupation. The presence of subsurface features associated with a thick, subsurface, artifact- and charcoal/ash-bearing deposit indicated that the site had considerable data potential and that

additional investigations were in order.

A data recovery plan was prepared (Boyer and Lakatos 2000), and, in September and October 2000 and February and March 2001, the OAS conducted data recovery excavations in the northern portion of LA 391. Thirty-nine features were excavated and are discussed in the preliminary report of data recovery investigations (Boyer, Moore, and Lakatos 2001). Eleven of the 39 features were formal human burials; analyses of the human remains and associated artifacts and macrobotanical materials are discussed in a preliminary report (Boyer, Akins, and Badner 2002).

In December 2002, the NMSHTD requested that the OAS prepare a plan for data recovery investigations in the southern portion of LA 391, on lands belonging to the Pueblo of Tesuque, and in the portion of the site beneath existing drive lanes of U.S. 84/285. This document is submitted in fulfillment of that request. Like the plan prepared for LA 111333 by Moore, Boyer, and Toll (2002), this plan is an addendum to the prehistoric data recovery plan for prehistoric sites in the U.S. 84/285 Santa Fe to Pojoaque Corridor project area (Boyer and Lakatos 2000). Data recovery efforts at LA 391 are linked to a research orientation and to field and laboratory data recovery methods common to prehistoric sites in the U.S. 84/285 Santa Fe to Pojoaque Corridor project area (Boyer and Lakatos 2000; Moore, Boyer, and Toll 2002), including those that framed previous investigations at LA 391 (Boyer, Moore, and Lakatos 2001). The research orientation focuses on, but is not be limited to, inter- and intra-regional social and ideological relationships, community formation, economic and subsistence strategies, and ethnic identities in the Tewa Basin. Because the data recovery investigations at LA 391 planned for 2003 will expand on previous data recovery efforts at the site, and because the project data recovery plan and research design was approved by management and review agencies



prior to earlier investigations at LA 391, this plan does not present the project research orientation in detail. The reader is referred to Boyer and Lakatos (2000) and Moore, Boyer, and Toll (2002) for detailed discussions of the project research orientation for prehistoric sites, and for discussions of the regional natural and cultural environments. This plan focuses on general and site-specific data recovery field methods and strategies. The reader is referred to Boyer and Lakatos (2000) and Moore, Boyer, and Toll (2002) for detailed discussions of artifact analyses and research issues, and to Boyer, Moore, and Lakatos (2001) and Boyer, Akins, and Badner (2002) for preliminary discussions of analytical results.

LA 391: THE MERA COMMUNITY CENTER SITE

LA 391 is a Developmental period site located in and adjacent to a parking lot formerly used by the Nambe Shop and the Luz de Nambe shop, on the west side of U.S. 84/285 (Fig. 1). The site is bounded on the north and northwest by the Nambe Shop/Luz de Nambe Shop parking lot and building pad, and on the west and south by the limits of the site artifact scatter. Previous data recovery investigations indicate that portions of the site may extend beneath the existing U.S. 84/285 road prism (Boyer, Moore, and Lakatos 2001:59, 61). The site is bisected by the northern boundary of the Pueblo of Tesuque Grant (Fig. 2). It measures about 45 m northwest-southeast by about 35 m northeast-southwest, and covers an estimated 1,360 sq m. Most of that area (an estimated 960 sq m; about 70.6 percent of the site area) is within the Pueblo of Tesuque Grant and was not investigated during earlier data recovery at the site. Investigations during the testing (Boyer and Lakatos 2000) and previous data recovery phases (Boyer, Moore, and Lakatos 2001) were limited to an area covering about 240 sq m within existing NMSHTD right-of-way and proposed NMSHTD project limits, on private land and NMSHTD land acquired from private sources (Fig. 2).

Site mapping during the earlier data recovery phase supports a conclusion, drawn from testing investigations, that, while the site's artifact scatter is large (over 1,300 sq m), only one concentration of surface artifacts is present (Fig. 2). That concentra-

tion, which is about 95 sq m in area, surrounds a juniper tree just south of the Pueblo of Tesuque Grant boundary fence, and probably represents the location of a pit structure. The absence of other similar features suggests but does not demonstrate the absence of other substantial structural remains at the site. Other than the single concentration, the surface artifact frequency in the relatively undisturbed portion of the site within the Pueblo of Tesuque Grant is very low. While this does not preclude the presence of structural remains in the uninvestigated portion of the site, it indicates that LA 391 is not the location of multiple structures, a conclusion of significance for understanding LA 391 site structure and for interpreting the site's relationships with other Developmental period sites in the area.

Previous excavations at LA 391 revealed that the site was the location of repeated, similar or identical activities involving numerous features with relatively consistent sets of characteristics. Thirty features were excavated at LA 391 in 2000 and 2001. Eleven features (F6, F8, F29, F33, F34, F35, F37, F38, F39, F40, and F41; Fig. 2) were human burials in burial pits. The burial pits at Features 6 and 8 had been dug into and through Stratum 2 into the sterile silty-clayey sediment underlying the site. Consequently, the burial pits were filled by mixed Stratum 2 material and were probably the youngest of the excavated burials. The human remains in Feature 6 were covered from the chin over the abdominal cavity by a thin wooden log or "board," the underside of which was charred. The Feature 6 burial pit also contained a single, small, neckbanded jar, and a canine tooth on the pit floor near the human cranium. The Feature 8 burial pit also contained two reconstructible neckbanded jars. The jars were whole when placed in the burial pit, but were broken as the pit was filled. Feature 38 was filled with a mixture of Stratum 2 material and the silty-clayey sediment, and was probably placed early in the deposition of Stratum 2. It contained a single gray ware jar. The remaining burial features were filled with silty sediment, probably the material removed from each pit, mixed with varying amounts of charcoal and ash. The general lack of artifacts in the fill of these features suggested that the fill was not a mixture of silty sediment and Stratum 2. Instead, it appears that charcoal and ash

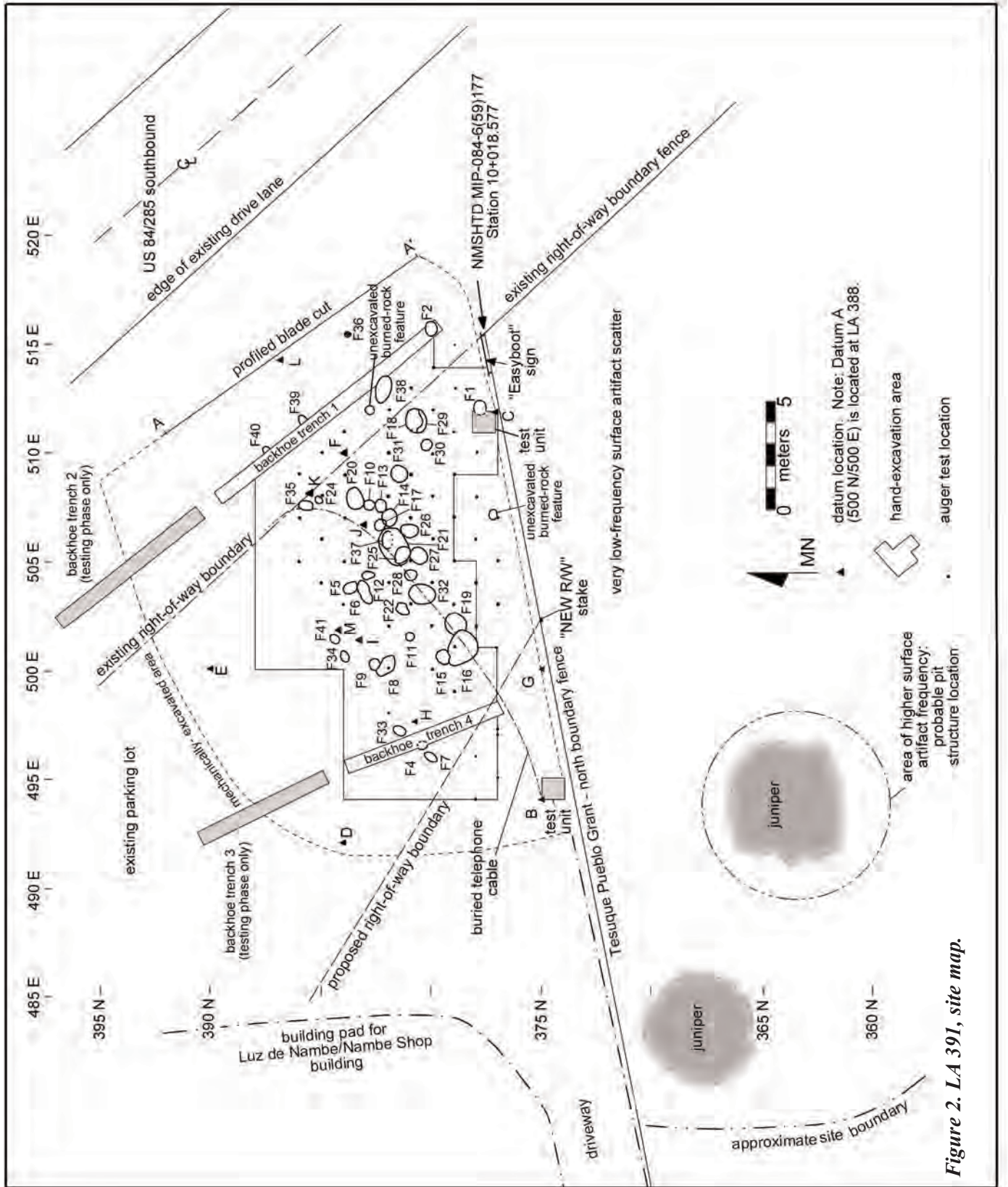


Figure 2. LA 391, site map.

were intentionally introduced when the features were filled, and that the features may predate deposition of Stratum 2. Feature 29 was unique in that the deep burial pit contained, in addition to the human remains, a large, whole Kwahe'e Black-on-white olla, most of an early Red Mesa Black-on-white bowl (an heirloom piece?), and a plain gray dipper/ladle, as well as two carbonized corn cobs and corn kernels near the feet. Feature 35 may also have been the burial of a person with considerable status. In addition to the human remains, it contained six pottery vessels, an obsidian projectile point, and two chert scrapers. Feature 33 contained a small gray ware jar, and Feature 37 may have contained a neckbanded jar, but the feature was significantly disturbed by mechanical scraping and the association of the vessel sherd could not be verified. Although we do not know how much time was involved in the deposition of Stratum 2, it is clear from the placement of the burials relative to Stratum 2 that the site was used as a location for human burial over a considerable length of time.

Of the remaining 27 features, 13 (F2, F4, F5, F7, F9, F12, F13, F15, F19, F25, F26, F31, and F32; Fig. 2) were small, informal pits filled with burned rocks and ashy sediments. The rocks filling the pits were cobbles that would have been brought to the site, probably from the Rio Tesuque floodplain to the west, as there are no gravel outcrops near the site. Interestingly, while the cobbles in these pits were burned, most were not fire cracked, indicating that they were not heated enough to make them crack, and that they were not reused. Apparently, each pit was a new feature, with new cobbles being brought to the site. This conclusion is supported by the observation that only 2 of the 27 features (F2 and F25) had any oxidation or baking of the sides or rims. Although it is not yet clear what activities were performed that involved these features, it seems evident that those activities required the use of new features rather than the reuse of existing features and cobbles.

Seven features (F1, F10, F14, F17, F22, F27, and F28; Fig. 2) were small pits that were lined with burned rocks and filled with burned rocks and ashy sediments. Like the informal, rock-filled pits, the cobbles lining and filling these more formal features were burned, but most were not fire cracked.

Two features (F16 and F21; Fig. 2) were large,

relatively shallow, trash-filled pits. In addition to these features, one feature (F30; Fig. 1.2) was a small, informal hearth, another (F18; Fig. 1.2) was a charcoal and ash dump from a hearth, a third (F11; Fig. 1.2) was a small, ash-filled pit, and a fourth (F24; Fig. 1.2) was a small, informal pit.

The presence of numerous, similar, rock-filled pit features at LA 391, all of which were apparently single-use features, points to reuse of the site for similar activities over time, as do the eleven burials. Nine features (F2, F4, F7, F11[?], F17[?], F21[?], F22, F24[?], and F29) were apparently constructed and used before or near the beginning of deposition of Stratum 2, since they were found below Stratum 2. Three features (F3, F20, and F31) were probably constructed and used near the end of deposition of Stratum 2, since the features were visible at the top of Stratum 2. The remaining 18 features were found at varying depths within Stratum 2. Additionally, some features overlapped others. For instance, F9 (a small, informal, rock-filled pit) overlapped F8 (a burial); F16 (a large, trash-filled pit) had been cut into F15 (a small, informal, rock-filled pit) and F19 (another small, informal, rock-filled pit); F14 (a formal, rock-lined pit) may have been cut into F17 (also a formal, rock-lined pit); and F25 (a formal, rock-lined pit) apparently predated F21 (a large, trash-filled pit), since the latter seemed to surround the former and some of the rocks lining the sides of F25 were missing.

These situations show that the area was used repeatedly over a considerable period of time, for similar suites of activities. The presence of a probable pit structure at the site, however, shows that other activities were performed at LA 391, activities that have not been illuminated by excavation. Consequently, there is good reason to believe that this unique site has the potential to provide considerably more information on both on-site activities and on the relationships of LA 391 to other Developmental period sites in the area. Boyer and Lakatos (2001) have argued that LA 391 was the "center" of a community of Developmental period farmsteads and that it reflects the presence of well-developed community organization during the Developmental period. Although other Developmental period sites in the Northern Rio Grande region may also have functioned as community centers, LA 391 is completely distinct

among excavated sites from this period in that it represents what can only be described as a cemetery, the first cemetery encountered at a pre-Classic period site in the region. Examination of the human remains and associated artifactual and macrobotanical remains suggests relationships between gender, burial orientation, burial objects, and plants accom-

panying the burials (Boyer, Akins, and Badner 2002). Consequently, additional investigation of LA 391 can be expected to provide more important, and unique, information on the organization of people, settlement, and land use during the Developmental period.

FIELD DATA RECOVERY METHODS

Jeffrey L. Boyer and James L. Moore

This chapter provides a general overview of the techniques that will be used during data recovery investigations. The same general methods will be used to examine LA 391 as were used in previous examinations of the site and as are used at all sites in the U.S. 84/285 Santa Fe to Pojoaque Corridor project area, although, since all sites have unique characteristics, it is usually necessary to tailor investigative techniques to individual cases. This may include selecting certain areas for excavation, how areas around features are treated, and whether or not mechanical equipment is used. For more detailed coverage of project excavation methods, the reader is referred to the project field manual (Boyer, Moore, and Lakatos 2000).

GENERAL FIELD METHODS

Horizontal Provenience: The Grid System

The first step in excavation will be to redefine the Cartesian grid system that was established during previous investigations at the site. The main site datum, also established during previous investigations, will be used to reference all horizontal and vertical measurements. The main datum will only be moved if it is in an area that will be affected by excavation, or if it is removed or damaged during the time between investigation phases. A plan of the site will be prepared, illustrating the locations of excavation areas, structures, and features.

Surface collection and excavation units will be linked to the Cartesian grid system. These units will be identified by the grid lines that intersect at their southwest corners. The basic excavation units will be 1-by-1-m grid units unless they are not the most efficient unit of excavation. This is particularly true in structures. Removing fill from structures, except when on or just above floor, by grid units may provide greater levels of horizontal and vertical control than are needed or desired. In addition, it can be

very time consuming. While it is necessary and important to know what sediment stratum is represented, the grid location may not be as meaningful. Of course, both horizontal and vertical controls are important when deposits reflect specific cultural activities. Thus, excavation units may differ in size depending on the nature of the deposits being investigated.

It must also be remembered that grid systems are artificially imposed over sites. They are simply constructs used to provenience cultural materials and features so that their original relationships can be preserved for later study. Rarely do features conform to a grid system. When features are large it may be desirable to excavate by grid unit to obtain detailed data on placement of materials within them. However, excavation in grid units is often awkward in small features, especially when they extend into one or more units. Thus, features, rather than the grid units in which they occur, will usually be treated as independent excavation units.

Vertical Provenience: Strata and Levels

Two methods will be used to record vertical excavation units: strata and levels. Soil strata will be assigned unique numeric designations as they are encountered, and descriptions of each will be recorded on individual forms. Since the surface represents an arbitrary layer with no thickness, it will be designated Stratum 0 at each site. In order to track the sequence of strata from one area to another, each vertical excavation unit will also be assigned a level number, beginning with the surface. Again, since the surface is an arbitrary level with no thickness, it will be designated Level 0. The first vertical excavation unit will be labeled Level 1, the second Level 2, and so on. Since stratum and level numbers represent two completely different series, stratum numbers may not be in sequence as excavation proceeds downward, while level num-

bers will always be in sequence.

Just as the grid system will be linked to the main datum, so will all vertical measurements. All measurements will be made in meters below datum (MBD) to avoid problems encountered when dealing with both positive (below datum) and negative (above datum) measurements. In this case, vertical measurements will be made consistent by assigning the main datum at each site an arbitrary elevation of 10.00 MBD. Since it is often difficult to provide vertical control for an entire site with one datum, subdatums will be established. Horizontal and vertical control of these points will be maintained relative to the main datum.

Before it is possible to delimit the extent and nature of soil or sediment strata, it is usually necessary to examine them in cross section. This requires the excavation of exploratory units, which will consist of 1-by-1-m grid units excavated in arbitrary 10 cm vertical levels. When natural divisions—soil or sediment strata—have been defined, they will be used to delimit the boundaries of a level. Outside exploratory grid units, strata will be used as the main units of vertical excavation. Exceptions may include noncultural deposits and cultural strata that are very thick and need to be subdivided to provide greater provenience control.

Vertical treatment of deposits will vary according to their nature. Cultural deposits will be carefully excavated to preserve as much of the vertical relationship between materials as possible. Although the relationship among artifacts in noncultural deposits is rarely meaningful, horizontal and vertical control will be maintained when appropriate. For example, abandoned structures were sometimes used for trash disposal, filling with debris discarded by the inhabitants of nearby houses that were still occupied. Conversely, others were simply left open to the elements, filling naturally with a combination of wind-blown soil and colluvial sediments. Cultural materials will usually be present in both cases, yet they have completely different meanings. Trash represents materials that were purposely discarded, and can often be separated by strata to determine the sequence of deposition. This may allow researchers to look for minute changes in the artifact assemblage. Artifacts in naturally deposited strata rarely have any similar

meaning. Cultural deposits require careful excavation to preserve the relationship between artifacts discarded at different times. Noncultural deposits tend to be jumbled, and relationships between artifacts are almost always obscured because they were moved from their original contexts and redeposited.

Thus, accurate vertical controls may be unnecessary in some cases. While we will always attempt to excavate cultural deposits by stratum, that level of control will only be attempted in noncultural strata if it appears that it will provide data of potential importance to site interpretation. Excavation by strata is considered optimal in cultural deposits because soil layers tend to represent specific depositional episodes.

Augering

Soil augers can be effectively used to examine areas, at depth, with minimal effort and impact on the archaeological record. Thus, we will make use of this technique to examine part of site to determine whether features or structures are present. In particular, augers will be used to examine parts of sites that exhibit no surface signs of structures or features. When such are encountered, more intensive excavation techniques can then be applied to investigate them. Soil removed from auger holes will be screened to determine whether cultural materials are present. Auger tests will be recorded on individual forms.

Recording Excavation Units

The excavation of a grid unit, or any other type of excavation unit, will begin by filling out a form for the surface that provides initial depths (MBD) and other pertinent information. Ending depths in MBD for each succeeding level will be recorded on relevant forms, providing a record of all excavations. A Grid Unit Excavation Form will be completed for each level, including the surface, and will describe the soil or sediment matrix, inventory cultural materials recovered, and provide other observations considered important by the excavator or site supervisor, including depths, stratum, and level. The description of the soil or sediment matrix should include information on cultural and noncultural

inclusions, presence of building rubble, evidence of disturbance, and how artifacts are distributed if variations are noticed.

Recovery of Cultural Materials

Most artifacts will be recovered in two ways: visual inspection of levels as they are excavated, and screening through variable-sized mesh. Other materials may be collected as bulk samples that can be processed in the laboratory rather than the field. Regardless of how cultural materials are collected, they will all be inventoried and recorded in the same way. Collected materials will be assigned a field specimen (FS) number, which will be listed in a catalog and recorded on all related excavation forms and bags of artifacts. Field Specimen numbers will be tied to provenience, so that all materials collected from the same horizontal and vertical provenience units will receive the same FS number. For instance, if chipped stone, ceramic, and bone artifacts are recovered from the same level in the same grid unit or the same stratum in the same room quadrant, they will all be identified by the same FS number. Any samples taken from that level or stratum will also receive the same number. The FS number will be the primary tool that will allow for maintenance of the relationships between recovered materials and associated spatial information.

Most artifacts will be recovered by systematically screening soil removed from excavation units. All soil from exploratory grids and features will be passed through screens, as will at least a sample of soil from both cultural and noncultural strata in structures, as detailed later. Two sizes of screen, ¼-inch and 1/8-inch mesh, will most often be used. While most artifacts are usually large enough to be recovered by ¼-inch mesh, some are too small to be retrieved by that size screen. These remains can also provide important clues about the activities that occurred at a site. However, there is a trade-off in gaining this additional information. As the size of mesh decreases, the amount of time required to screen soil and recover artifacts increases. Sampling is a way to balance these concerns; thus, smaller mesh will only be used under certain circumstances. Rather than establishing specific guidelines for sampling by 1/8-inch mesh screens, it is considered better to leave this to the discretion of

the site supervisor. However, as a minimum, all soil in certain types of features (such as hearths and ash pits) should be screened through 1/8-inch mesh, as should all soil at floor or living surface contacts. Other potential applications of this recovery method include culturally deposited strata and activity areas.

Cultural materials from certain types of strata will only be recovered by visual inspection. As discussed in more detail later, only a sample of soil from noncultural strata will be screened to recover cultural materials. Rather than simply ignore artifacts from unscreened strata, however, cultural materials observed during excavation will be collected for analysis. While data from these proveniences may not be useful for some statistical analyses, they can be used to characterize site activities and spatial and temporal subdivisions of the site.

Other cultural materials, such as macrobotanical samples, will be recovered from bulk soil samples. In general, samples for flotation analysis will be collected from culturally deposited strata and features, and should contain at least 2 liters of soil. Macrobotanical materials like corn cobs, piñon shells, wood samples for identification, charcoal, etc., will be collected as individual samples whenever found. All botanical samples will be cataloged separately, and noted on pertinent excavation forms.

STRUCTURES, FEATURES, AND EXTRAMURAL AREAS: SPECIFIC FIELD METHODS

The excavation of various parts of a site will be approached in different ways, even though the mechanics of excavation will be the same. Most excavation will be accomplished using hand tools. However, in some cases it may be preferable to use mechanical equipment to expedite the removal of noncultural deposits. Thus, it is possible that mechanical equipment will be used to strip noncultural overburden from buried extramural cultural strata, or in areas lacking surface remains. However, fill will be removed from structures by hand to avoid potential damage to remaining architectural elements. Methods of excavation will vary depending upon whether a structure, a feature, or an extramural area is being examined.

Structures

Individual numeric designations will be assigned to structures on a site, as well as to the rooms they contain. Excavation within rooms will begin by digging an exploratory trench from one wall to the center of, or completely across a room. Due to safety concerns, exploratory trenches will not exceed 1 m in depth. Below 1 m, adjacent unit(s) or quadrant(s) may be removed to provide room to evade collapse. Exploratory trenches will be excavated by grid units to provide controlled samples and cross sections of the deposits. In some cases, this procedure will be repeated, perpendicular to the initial trench, to provide additional information on the filling processes. The exploratory cross section(s) will be profile mapped and the nature of the fill defined. Remaining fill will be excavated by quadrant. Quadrant boundaries will be determined by the locations of grid lines or exploratory trench(es) and, thus, may not always be the same size.

At least one quadrant, whether cultural or non-cultural in nature, will be excavated by the defined strata. This method will provide a sample of materials associated with these strata, allowing for a more comprehensive understanding of the filling sequence. The quadrant(s) selected will be left to the discretion of the site supervisor, although, in most cases, will be the quadrant that is assumed to provide the most information. For example, if a structure is filled with cultural deposits, more than one quadrant might be sampled. Remaining fill will be removed without screening, though artifacts will be collected when observed.

Excavation will halt between 5 and 10 cm above the floor to prevent damage to its surface during excavation. At this time, the grid system will be reestablished to permit more systematic sampling of materials near or in direct contact with the floor. This arbitrary layer, commonly referred to as floor fill, will be removed by grid unit and screened through 1/8-inch mesh. Finer control in recovering materials from these contexts is necessary since they are the most likely to have been deposited at or soon after the time of abandonment.

Following complete excavation of a structure, architectural details will be recorded on a series of forms. Building elements encountered during excavation should also be included. In particular, any

roof elements found during excavation should be mapped and described. Samples of roof material, if encountered, should be collected for species identification. Descriptions of individual rooms will include information on wall dimensions, construction materials and techniques, and associated features. In addition, scaled plan and profile maps of each structure will be drawn, detailing the locations of rooms and internal features, artifacts found in direct contact with floors, and any other details considered important. A series of 35-mm black-and-white photographs will be completed for each structure showing its overall form, individual rooms, construction details, and the relationship of features with other architectural elements. In addition, photographs may be taken during excavation when warranted and 35-mm color slides may be taken at the discretion of the site supervisor.

Features

Features will constitute individual horizontal provenience units. Features will be assigned sequential numbers as they are encountered at a site. Feature numbers will be recorded on a feature log. Prior to excavation, features will be mapped and photographed. Features less than 2 m in diameter may be excavated differently than features greater than 2 m in diameter. After defining the horizontal extent of a feature less than 2 m in diameter, such as a hearth or ash pit, it will be bisected. One half will be excavated in 10 cm arbitrary levels to define internal stratigraphy, and a scale profile will be drawn. The second half will be removed by internal strata. All soil removed from small features will be screened through 1/8-inch mesh. After the fill has been removed a second cross section illustrating the feature's vertical form perpendicular to the soil profile will be drawn. In addition, a scale plan of the feature showing the grid location, size, and location of profile lines will be drawn. Feature information will be recorded on a feature form describing, in detail, its shape, content, use history, construction detail, and inferred function.

Features greater than 2 m in diameter may be excavated by grid unit. The number of excavated grid units will be kept to a minimum and excavated by defined soil strata whenever possible. A sample of the feature fill, in this case one or more grid

units, will be screened through 1/8-inch mesh; otherwise 1/4-inch mesh will be used. At least two perpendicular scale profiles will be drawn, and forms that describe, in detail, the shape and content will be completed. Features greater than 2 m in diameter that are not treated in this way will be excavated using the same methods applied to features less than 2 m in diameter. The method of excavation selected for a particular feature will be left to the discretion of the site supervisor. All features will be documented using 35-mm black-and-white photographs before and after excavation. Other photographs, including 35-mm color slides, showing construction or excavation details may be taken at the discretion of the excavator.

Extramural Excavation Areas

Areas outside structures or around features like hearths, were often used as work areas. Thus, certain zones may be examined to determine whether work areas can be defined. Excavation in these zones will proceed by grid unit. Most soil encountered during these investigations will be screened through 1/4-inch mesh, though a smaller-sized mesh may be used to sample certain areas. Plans of each extramural area investigated will be drawn, detailing the excavation limits and location of any features.

SPECIAL SITUATIONS

Sensitive Materials

This category pertains to the discovery of culturally sensitive materials or objects of religious importance. At this time, the only special situations we can anticipate are human burials. Appendix 2 presents a plan, approved by the Pueblo of Tesuque, for treatment and disposition of human remains, should they be encountered at the site.

In accordance with the plan, human remains would be excavated using standard archaeological techniques, including definition of the burial pit, use of hand tools to expose skeletal materials, mapping and photographing the positions of the skeleton and grave goods.

After human remains or other sensitive materials are uncovered, no person will be allowed to han-

dle or photograph them except as part of data recovery and repatriation efforts. Photographs of sensitive materials related to data recovery efforts will not be released to the media or general public.

Unexpected Discoveries

There is always a risk of finding unexpected deposits or features during an archaeological excavation, and the project outlined in this plan is no exception. Procedures that will be followed in the event of an unexpected discovery will vary with the nature and extent of the find. Small features, structures, or cultural deposits that were not located during testing will be excavated according to the procedures outlined above. On the other hand, finds that have the potential to significantly alter the scope and intent of this plan will require consultation with the Pueblo of Tesuque, the NMSHTD, the Bureau of Indian Affairs, and the State Historic Preservation Division.

DATA RECOVERY STRATEGIES FOR LA 391

Data recovery excavations at LA 391 will be an expansion of earlier excavations at the site, and field methods will follow the procedures outlined above and used during the 2000-2001 investigations. Two unique situations are anticipated that were not encountered during earlier excavations. The first is the (assumed) relatively undisturbed portion of LA 391 present on Pueblo of Tesuque land outside existing highway right-of-way. The second is a portion of the site that may extend under existing highway drive lanes on both NMSHTD and Pueblo of Tesuque lands.

Undisturbed Site Area

Earlier excavations at LA 391 were conducted in a parking lot area that had been disturbed by blading, parking lot construction and maintenance, and vehicle traffic. Excavations revealed that the natural ground surface had been removed by blading, which also removed upper parts of Stratum 2, the thick, charcoal-ash-artifact-bearing deposit within and beneath which the numerous features were encountered. At the time of excavation, Stratum 2 was considerably thicker at the southern edge of the

excavation area (near the Pueblo of Tesuque Grant boundary fence and the southern edge of the parking lot) than at its northern edge, probably reflecting the depth of blading during parking lot construction. Base course material used to create the parking lot surface was present directly over Stratum 2 over most of the excavation area. Consequently, it was not possible to define the pre-disturbance nature of Stratum 2, including its origin(s) and whether features were consistently present through the stratum. For instance, it is possible that some of the human individuals that were represented by "isolated" bone elements (Boyer, Akins, and Badner 2002) were originally placed in formal burial features in upper portions of Stratum 2 and were disturbed by parking lot construction, maintenance, and use activities. It was also not possible to define the on-site stratigraphic sequence, including how Stratum 2 was deposited relative to natural horizons above and below it. Excavations in the relatively undisturbed portion of LA 391 outside the existing right-of-way on Pueblo of Tesuque land will provide an opportunity to define the site's full natural and cultural stratigraphy, and to place site features, both those already excavated and those anticipated, within the context of natural and cultural site formation processes.

Following re-establishment of the main site datum and the site grid, a 1-by-5-m trench will be excavated by hand in the undisturbed area of the site. The trench will be excavated in 1-by-1-m units, using techniques discussed above. A profile of one wall of the trench will be drawn, to define the stratigraphic sequence. Obviously, there is no way to ensure that the sequence will be completely representative of the site's stratigraphy. However, examination of profiles from four backhoe trenches excavated during the testing phase at LA 391 (Boyer and Lakatos 2000) suggests that the on-site stratigraphy is relatively consistent. However, since those trenches were placed in the parking lot area, their profiles do not provide information on the full sequence at the site.

Hand augering will be conducted in a series of 2 m, offset transects across the exposed portion of the site. Augering will be used to confirm the stratigraphic sequence defined in the excavation trench, and to determine the horizontal extent and vertical depth of Stratum 2. During earlier data recovery

investigations at the site, augering was useful for identifying the locations of buried features. Consequently, we anticipate that augering will also help determine whether buried features or structural remains are present within project limits at the site.

The results of augering will be used to determine whether and where to conduct excavations in the southern part of the site. Excavations will focus on features, which are presumed to be present based on the results of earlier data recovery, and on structures, if such are present, and on relationships between features, structures, and Stratum 2, which is a significant feature of the site (Boyer and Lakatos 2000; Boyer, Moore, and Lakatos 2001). Features and structures will be excavated using methods detailed above. Although several thousand artifacts were recovered from Stratum 2 during previous excavations, a sample of the stratum in the southern site area will be excavated, in grid units, to collect artifacts from upper and lower portions that may aid in determining time depth for deposition of the stratum. The size of that sample will be determined in the field, based on factors that include the presence of features and structures.

Following completion of excavations, all excavation areas will be backfilled.

Site Area Under Drive Lanes

Previous data recovery excavations suggested that Stratum 2 may extend under the pavement at the western edge of the existing southbound drive lanes of U.S. 84/285 (Boyer, Moore, and Lakatos 2001:59, 61). The features previously excavated at the site were encountered in or beneath Stratum 2; most of the cobble features were in Stratum 2 (Boyer, Moore, and Lakatos 2001), while most of the burial features were beneath Stratum 2 (Boyer, Akins, and Badner 2002). Consequently, there is reason to suspect that if Stratum 2 extends beneath existing pavement, additional features, including burials, may be also present under the existing highway, particularly the southbound drive lanes.

The existing highway pavement will be removed by the highway construction contractor. Subsequently, the OAS will remove the base course comprising the road bed, using mechanical equipment, to expose the top of Stratum 2.

Hand augering will be conducted in a series of 2 m, offset transects across the exposed portion of the site. Augering will be used to determine the horizontal extent and vertical depth of Stratum 2. We anticipate that augering will also help determine whether buried features or structural remains are present within project limits at the site.

The results of augering will be used to determine whether and where to conduct excavations in

any part of the site under existing pavement. Excavations will focus on features, which are presumed to be present, based on the results of earlier data recovery, and on structures, if such are present, and on relationships between features, structures, and Stratum 2. Features and structures will be excavated using methods detailed above.

Following completion of excavations, all excavation areas will be backfilled.

ARTIFACT ANALYSES AND RESEARCH ISSUES

Jeffrey L. Boyer

Previous testing and data recovery investigations at LA 391 recovered almost 11,000 artifacts, samples, and other materials. Of these, about 70 percent were ceramic sherds and vessels, about 20 percent were chipped stone artifacts, and about 9 percent were fragments of nonhuman bone. The remainder included human remains, other artifacts, and samples for macrobotanical and microbotanical analyses. Consequently, we anticipate that additional data recovery investigations at the site will yield similar types and frequencies of artifacts, samples, and other materials. Because additional investigations at LA 391 will be conducted as part of the same project that included earlier investigations at the site and at several other sites in the U.S. 84/285 Santa Fe to Pojoaque Corridor project area, analyses of artifacts and other materials will be fit into the existing research framework for the project prehistoric sites. That framework is detailed by Boyer and Lakatos (2000). For specific analytical and

research issues pertaining to the various artifactual materials expected to be recovered from LA 391 and other prehistoric sites in the project area, the reader is referred to the following authors:

- Ceramic artifacts:* Wilson (2000); Wilson and Moore (2002)
Chipped stone artifacts: Moore (2000a, 2002a)
Ground stone artifacts: Moore (2000b, 2002b)
Macro- and microbotanical remains: Toll and McBride (2000); Toll, McBride, and Moore (2002)
Faunal remains: Akins (2000a); Akins and Moore (2002a)
Chronometric samples: Moore (2000c, 2002c)
Human remains: Akins (2000b); Akins and Moore (2002b); Boyer, Akins, and Badner (2002)
Architectural materials: Moore (2000d)

REFERENCES CITED

- Akins, Nancy J.
 2000a Faunal Remains: Research Issues and Analysis. In *The Santa Fe to Pojoaque Corridor Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*, edited by Jeffrey L. Boyer and Steven A. Lakatos, pp. 133-138. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- 2000b Human Remains: Research Issues, Treatment, and Analysis. In *The Santa Fe to Pojoaque Corridor Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*, edited by Jeffrey L. Boyer and Steven A. Lakatos, pp. 149-156. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Akins, Nancy J., and James L. Moore
 2002a Faunal Remains. In *The Tesuque Y Site: Archaeological Testing Results and a Plan for Data Recovery at LA 111333, U.S. 84/285 Santa Fe to Pojoaque Corridor, Santa Fe County, New Mexico*, by James L. Moore, Jeffrey L. Boyer, and H. Wolcott Toll, pp. 100-101. Archaeology Notes 316. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- 2002b Human Remains. In *The Tesuque Y Site: Archaeological Testing Results and a Plan for Data Recovery at LA 111333, U.S. 84/285 Santa Fe to Pojoaque Corridor, Santa Fe County, New Mexico*, by James L. Moore, Jeffrey L. Boyer, and H. Wolcott Toll, pp. 105-108. Archaeology Notes 316. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Boyer, Jeffrey L., and Steven A. Lakatos, editors
 2000 *The Santa Fe to Pojoaque Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Boyer, Jeffrey L., James L. Moore, and Steven A. Lakatos
 2000 *A Manual for Investigations at Archaeological Sites in New Mexico*. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- 2001 *U.S. 84/285 Santa Fe to Pojoaque Corridor: Preliminary Results of Data Recovery Investigations at Five Sites near Cuyamungue, Santa Fe County, New Mexico*. Archaeology Notes 296. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Boyer, Jeffrey L., Nancy J. Akins, and Jessica Badner
 2002 *Preliminary Report on Human Burials Recovered from LA 391, U.S. 84/285 Santa Fe to Pojoaque Corridor, Santa Fe County, New Mexico*. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.

- Buikstra, Jane E., and Douglas H. Ubelaker
1994 *Standards for Data Collection from Human Skeletal Remains*. Research Series No. 44. Arkansas Archeological Survey, Fayetteville.
- Ensey, Michelle M.
2001 Letter from Historic Preservation Division to Tim Maxwell, December 6, 2001. HPD Log No. 63760. On file, Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Hohmann, John W., Margaret Davis, Joel D. Irish, Donald C. Irwin, and Christine H. Virden
1988 *Phase I (Class III) Archaeological Survey of 22.4 Kilometers (14 Miles) along US 84/285, Santa Fe to Pojoaque, Santa Fe County, New Mexico*. Cultural Resource Group Clearance Report No. 48. Louis Berger and Associates, Inc., Santa Fe.
- Lakatos, Steven A.
2000 Test Excavations at LA 391. In *The Santa Fe to Pojoaque Corridor Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*, edited by Jeffrey L. Boyer and Steven A. Lakatos, pp. 33-38. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Moore, James L.
2000a Chipped Stone Artifacts: Research Issues and Analysis. In *The Santa Fe to Pojoaque Corridor Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*, edited by Jeffrey L. Boyer and Steven A. Lakatos, pp. 115-120. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
2000b Ground Stone Artifacts: Research Issues and Analysis. In *The Santa Fe to Pojoaque Corridor Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*, edited by Jeffrey L. Boyer and Steven A. Lakatos, pp. 121-126. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- 2000c Dating: Collection and Analysis of Chronometric Samples. In *The Santa Fe to Pojoaque Corridor Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*, edited by Jeffrey L. Boyer and Steven A. Lakatos, pp. 139-144. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- 2000d Structures and Features: Analysis of Architectural Materials. In *The Santa Fe to Pojoaque Corridor Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*, edited by Jeffrey L. Boyer and Steven A. Lakatos, pp. 145-148. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- 2002a Chipped Stone Artifacts. In *The Tesuque Y Site: Archaeological Testing Results and a Plan for Data Recovery at LA 111333, U.S. 84/285 Santa Fe to Pojoaque Corridor, Santa Fe County, New Mexico*, by James L. Moore, Jeffrey L. Boyer, and H. Wolcott Toll, pp. 90-94. Archaeology Notes 316. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- 2002b Ground Stone Artifacts. In *The Tesuque Y Site: Archaeological Testing Results and a Plan for Data Recovery at LA 111333, U.S. 84/285 Santa Fe to Pojoaque Corridor*,

- Santa Fe County, New Mexico*, by James L. Moore, Jeffrey L. Boyer, and H. Wolcott Toll, pp. 94-97. Archaeology Notes 316. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- 2002c Dating: Collection and Analysis of Chronometric Samples. In *The Tesuque Y Site: Archaeological Testing Results and a Plan for Data Recovery at LA 111333, U.S. 84/285 Santa Fe to Pojoaque Corridor, Santa Fe County, New Mexico*, by James L. Moore, Jeffrey L. Boyer, and H. Wolcott Toll, pp. 102-105. Archaeology Notes 316. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Moore, James L., Jeffrey L. Boyer, and H. Wolcott Toll
2002 *The Tesuque Y Site: Archaeological Testing Results and a Plan for Data Recovery at LA 111333, U.S. 84/285 Santa Fe to Pojoaque Corridor, Santa Fe County, New Mexico*. Archaeology Notes 316. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Toll, Mollie S., and Pamela McBride
2000 Botanical Remains: Research Issues and Analysis. In *The Santa Fe to Pojoaque Corridor Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*, edited by Jeffrey L. Boyer and Steven A. Lakatos, pp. 127-133. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Toll, Mollie S., Pamela McBride, and James L. Moore
2002 Botanical Remains: Research Issues and Analysis. In *The Tesuque Y Site: Archaeological Testing Results and a Plan for Data Recovery at LA 111333, U.S. 84/285 Santa Fe to Pojoaque Corridor, Santa Fe County, New Mexico*, by James L. Moore, Jeffrey L. Boyer, and H. Wolcott Toll, pp. 97-100. Archaeology Notes 316. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Wilson, C. Dean
2000 Ceramic Artifacts: Testing Results, Research Issues, and Analysis. In *The Santa Fe to Pojoaque Corridor Testing Project: Archaeological Testing Results from Five Sites and a Data Recovery Plan for the Prehistoric Sites along U.S. 84/285 North of Santa Fe, New Mexico*, edited by Jeffrey L. Boyer and Steven A. Lakatos, pp. 115-120. Archaeology Notes 265. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.
- Wilson, C. Dean, and James L. Moore
2002 Ceramic Artifact Analysis. In *The Tesuque Y Site: Archaeological Testing Results and a Plan for Data Recovery at LA 111333, U.S. 84/285 Santa Fe to Pojoaque Corridor, Santa Fe County, New Mexico*, by James L. Moore, Jeffrey L. Boyer, and H. Wolcott Toll, pp. 89-90. Archaeology Notes 316. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.

APPENDIX 2. TREATMENT OF SENSITIVE MATERIALS: HUMAN REMAINS AND ASSOCIATED OBJECTS

Nancy J. Akins, Eric Blinman, and Jeffrey L. Boyer

Because excavations at LA 391 will be conducted on lands belonging to the NMSHTD and to the Pueblo of Tesuque, two treatment protocols are required by the separate laws governing discovery, excavation, and removal of human burials. Following the intent of the Office of Cultural Affairs Policy on Collection, Display and Repatriation of Culturally Sensitive Materials (MNM Rule 11, adopted November 1, 1991), revised by Museum of New Mexico Collections Policy (§11, approved May 20, 1999), all human remains are sensitive materials, as are associated funerary objects. These should be treated with the utmost respect and handled as little as possible. Under MNM Collection Policy (§11-B, 4), the general public will be restricted from viewing and photographing human remains or associated funerary materials.

NMSHTD LAND

On private and state land, including land belonging to the NMSHTD, state law (NMSA §18-6-11.2, 1989 and Historic Preservation Division [HPD] Rule 4, NMAC 10.11) requires a permit for excavation of unmarked burials. Human remains on state or private land are excavated under annual burial permits issued to the OAS. If human remains are encountered during excavations on NMSHTD land at LA 391, excavation in the immediate vicinity of the remains will cease and the Santa Fe County Sheriff and the HPD will be contacted. It is the responsibility of the Santa Fe County Sheriff to contact the Office of the Medical Investigator (OMI) and to consult with an OMI representative and the OAS to determine whether the remains are in an archaeological context. Following determination of the archaeological nature of the remains, full excavation will proceed when removal of the

remains can be substantially completed within a work day, so as to minimize the risk of vandalism or other damage to the remains. Human burials are considered to be site features, for the purposes of excavation, and will be excavated according to procedures discussed in Chapter 2. No human remains will be left exposed in the field overnight or over a holiday or weekend.

The excavation will be fully documented with drawings and photographs, and only official OAS staff will be allowed to take photographic images, and then only for purposes of documenting the remains prior to and during excavation. Photographs will not be taken for personal purposes.

Following completion of excavation, the human remains and grave goods will be conveyed to the secure facilities of the OAS, where they will be prepared for analysis and curation or reburial. Analyses of human remains will follow the procedures set out in Standards for Data Collection from Human Skeletal Remains (Buikstra and Ubelaker 1994).

HPD Rule 89-1 specifies that the New Mexico HPD, in consultation with possible living descendants or relatives of the individuals interred at LA 391, should determine conditions for appropriate disposition of all human remains and associated funerary objects. If the HPD and its consultants do not determine conditions for disposition, then the human remains will be curated at the Museum of New Mexico's Laboratory of Anthropology (LOA), following completion of the LOA's planned new storage facility. Until that time, the remains and objects will be stored at the OAS. This plan is consistent with a plan proposed by the HPD for disposition of human remains and associated objects recovered during previous data recovery investigations at LA 391 (Ensey 2001).

PUEBLO OF TESUQUE LAND

The southern portion of LA 391 is located on Pueblo of Tesuque land. For archaeological sites on tribal land, the Native American Graves Protection and Repatriation Act (NAGPRA; 25 U.S.C. 3002 [1990]) states that any human remains and associated funerary objects, sacred objects, or objects of cultural patrimony belong to the lineal descendants, or if lineal descendants cannot be ascertained, to the tribe on whose land the objects were discovered. These groups must be consulted before any items are excavated or removed from tribal land. The criteria for determining lineal descent are fairly rigorous (43 CFR 10.14). Lineal descendants are individuals who can trace their ancestry directly without interruption by means of the traditional kinship system of the appropriate tribe. Given the location and antiquity of LA 391, consultation will be completed with the Pueblo of Tesuque concerning any human remains, funerary objects, sacred objects, or objects of cultural patrimony that might be encountered during excavations in the southern portion of the site. Discussions with representatives of the Pueblo of Tesuque have resulted in the following guidelines for the treatment of human remains:

1. Upon any discovery of human remains, the designated representatives of the Pueblo of Tesuque will be contacted immediately, followed by the highway department representative, and the Bureau of Indian Affairs. Excavation will proceed to the extent necessary to establish that the human remains are archaeological and not part of a crime scene. That determination will be made in consultation with the Pueblo of Tesuque representatives, and a schedule for excavation will be discussed. If immediate full excavation is not possible, the immediate area of the discovery will be secured and covered, and full excavation will be deferred until it can be completed within a day.

2. Following consultation, full excavation will proceed when removal can be substantially completed within a work day, so as to minimize the risk of vandalism or other damage to the remains. Human burials are considered to be site features, for the purposes of excavation, and will be excavated according to procedures discussed in Chapter 2. No

human remains will be left exposed in the field overnight or over a holiday or weekend without consultations with Pueblo of Tesuque representatives and without arrangements to maintain the security of the remains. The excavation will be fully documented with drawings and photographs, and only Tesuque representatives and official OAS staff will be allowed to take photographic images. All images will remain the property of the Pueblo of Tesuque.

3. Grave goods will be excavated simultaneously with the human remains. They will be documented with the burial, and a written inventory of all grave goods will be prepared during excavation. That inventory will be submitted to Pueblo of Tesuque representatives upon the removal of the grave goods from the field.

4. Following completion of excavation, the human remains and grave goods will be conveyed to the secure facilities of the OAS, where they will be prepared for reburial. The reburial schedule will be determined by Pueblo of Tesuque representatives at the time the remains are excavated. Preparation will include surface cleaning, measurements, visual observations, and laboratory photographs. No destructive analyses will be permitted. Analyses of human remains will follow the procedures set out in Standards for Data Collection from Human Skeletal Remains (Buikstra and Ubelaker 1994).

5. Reburial will take place at a location and in a manner to be determined in consultation with representatives of the Pueblo of Tesuque. That location will be as near as possible to the original excavation location while considering issues of security, disturbance of archaeological deposits, and anticipation of future agents of disturbance. An inventory of each reburial (including grave goods) will be provided to the Pueblo of Tesuque, along with detailed documentation suitable for use by law enforcement officials should the human remains or grave goods ever be disturbed in the future. The reburial location will be identified in the confidential state archaeological site records (ARMS) as a reburial site, insuring that its preservation needs will be considered if any future development is proposed in the area of the reburial location.

6. All observations concerning human remains and grave goods that are carried out by OAS staff will be recorded in a separate report. That report will be provided to the Pueblo of Tesuque and to other appropriate agencies and individuals, but will not be distributed to the general public. Human remains and grave goods will be referred to in the general site report, but they will not be illustrated with photographs or given detailed exposure without the express permission of the Pueblo of Tesuque.

7. If isolated human bone is not recognized at the time of excavation and is discovered during the course of laboratory analysis, Pueblo of Tesuque representatives will be contacted immediately, as will the NMSHTD and the BIA. The isolated bone will be reburied as described above (see number 5).

8. These guidelines may be amended during the course of excavation by the action of the Pueblo of Tesuque Council.

In addition to human remains and associated objects, members of the Pueblo of Tesuque regard all ancestral materials to be worthy of reverent treatment, even if not having explicit sacred status. As such, the excavation of LA 391 will encounter

objects of cultural patrimony or sacred objects. OAS personnel directing excavations at LA 391 will bring any unusual artifacts and materials to the attention of Pueblo of Tesuque representatives during the course of excavation. All excavated artifacts and materials recovered from Pueblo of Tesuque land will remain under the control of the Pueblo of Tesuque during the processes of excavation and analyses, and may be subject to review and examination by Pueblo of Tesuque representatives at any time. No artifacts or other materials recovered from Pueblo of Tesuque land will be removed from Pueblo of Tesuque land without express written permission.

OAS staff will be permitted to document excavations on Pueblo of Tesuque land using film and digital photography. However, no personal photographs may be taken. All photographic images will remain the property of the Pueblo of Tesuque, although the OAS may use the photographic records for research purposes during analytical processes. The OAS may request permission to use images in the report of the results of excavations. Final disposition of records and images will be determined by the Pueblo of Tesuque in consultation with the OAS.

