THE POTTERY MOUND MONITORING PROGRAM, 2006

By

David A. Phillips, Jr.
Jean H. Ballagh

Maxwell Museum Technical Series No. 3

Permit Nos. NM-06-202-S (survey and inventory),
-M (monitoring), and -T (test excavation) and ABE-06-202
NMCRIS Activity No. 102858

Maxwell Museum of Anthropology
MSC01, 1050, 1 University of New Mexico
Albuquerque, New Mexico 87131-0001
www.unm.edu/~maxwell

TABLE OF CONTENTS

Page

FIGURES

INTRODUCTION

In August 2006, the Cultural Properties Review Committee, State of New Mexico, issued permits for archaeological monitoring and related activities at LA 416, Pottery Mound, to David Phillips, Curator of Archaeology, Maxwell Museum of Anthropology, University of New Mexico (UNM), Albuquerque. The permit period extended through the end of 2006. This report summarizes work accomplished as of the end of the year. Although the permits allowed survey and inventory, monitoring, test excavations, and excavation of unmarked burials, the work actually done included only monitoring. The permit numbers are NM-06-202-S (survey and inventory), -M (monitoring), and -T (test excavation) and ABE-06-202 (unmarked burials). The NMCRIS activity number is 102858.

Pottery Mound is owned by UNM, on a parcel entirely surrounded by Pueblo of Isleta land. The monitoring work was performed by the Maxwell Museum of Anthropology for the University. The goals and methods of the monitoring program are described in the monitoring plan (Phillips 2006). This report summarizes those portions of the plan relevant to the work actually done. Figure 1 shows the general location of the site. As this report will be distributed without restrictions, detailed location data are not included. The updated site form submitted with this report provides a site location map and details. Figure 2 shows the site plan as tentatively reconstructed from a series of half-century-old maps.

The site perches on a tall vertical bank of the Rio Puerco and is actively being eroded. The most basic goal of the monitoring program is to document the erosion and, in time, to carry out measures to slow the erosion. The erosion periodically exposes human remains. Pursuant to guidance from Isleta Pueblo, the Maxwell Museum has begun rescuing and documenting the remains and reburying them in the site (to date, this work has been done by Heather Edgar, Curator of Osteology, under a separate permit). Other goals of the monitoring program include (1) periodic assessment of the site's research potential, (2) monitoring for vandalism, and (3) gathering of information that will aid the interpretation of existing notes and collections.

Because this is the first of a series of formal reports on Pottery Mound monitoring activities, the report includes a summary of activities leading up to the current permitted activity.

BACKGROUND TO THE CURRENT PERMIT ACTIVITY

Except for a 1979 testing project by Linda Cordell and a few other (very minor) exceptions, all of the early work at Pottery Mound was done by Frank Hibben, a professor at UNM. Hibben's formal fieldwork included field schools in 1954, 1955, 1957, and 1958 and an NSF-funded project in 1960–1961. Hibben continued to lead volunteers on informal digs at the site well into the 1980s. His primary publication on the site focused on the kiva murals (Hibben 1975); his other publications were summaries (e.g., Hibben 1955, 1966, 1967). The lack of detailed published data has made it difficult for researchers to compare Pottery Mound to other late prehistoric Pueblo sites. Some researchers believed that Hibben's field records had been lost and that as a result, the original excavations at the site could never be reconstructed.

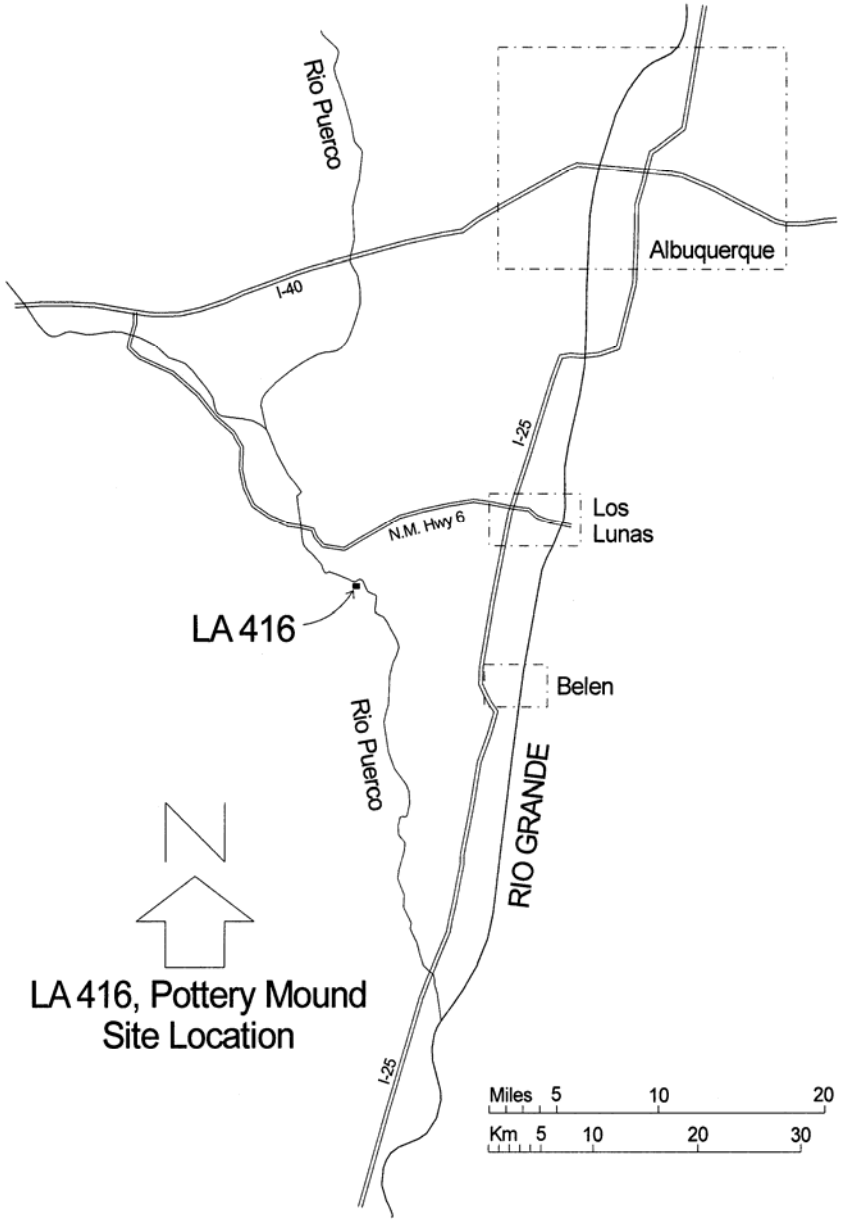


Figure 1. Project location.

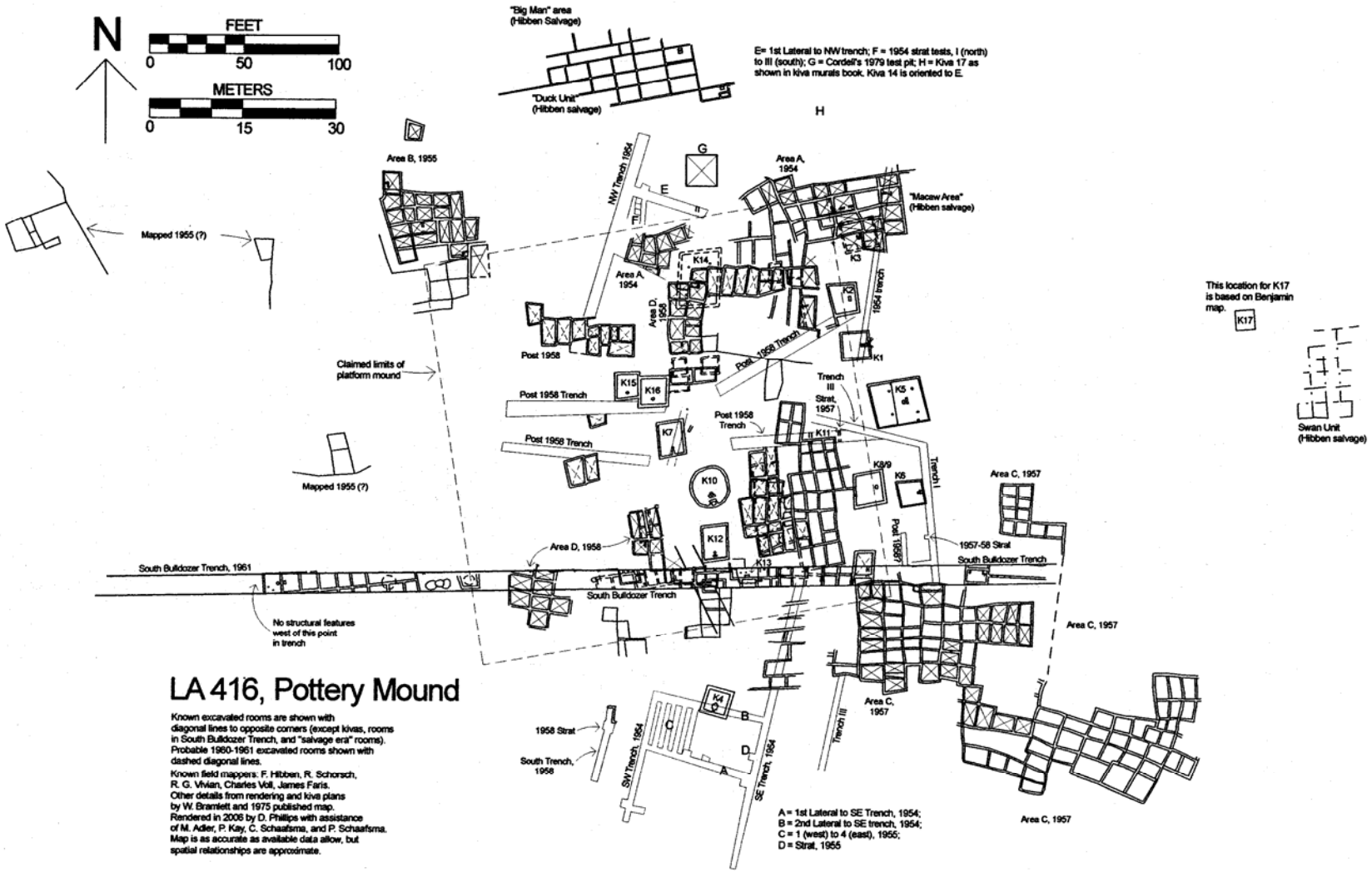


Figure 2. Current understanding of the layout of Pottery Mound, based on available documents. A larger version of this map is in press (in Schaafsma 2007).

In 2003, shortly after starting at the Maxwell Museum, Phillips examined collections in the late Dr. Hibben's emeritus labs. These included not only artifacts but student notebooks, plane table maps, and other records of Hibben's fieldwork. Photographs of the kiva murals were subsequently found in his home. It became clear that detailed descriptions of the original fieldwork would be possible, but that additional field data (such as an accurate base map of the site) would add to the utility of any after-the-fact site reports.

Phillips then examined the site itself, under general survey and inventory permits issued to the Office of Contract Archeology, University of New Mexico. Each visit was documented in a memo report to the chair of the UNM Board of Archaeologists; the reports are on file at the Maxwell Museum.

On March 22, 2004, with the assistance of the Pueblo of Isleta's Range Patrol, Phillips identified an access route and located the site. During the visit he noticed human remains eroding from the site. On May 3 he returned to the site with museum volunteer Jean Ballagh to document, in a general way, the erosion and the exposed human remains.

One problem noted during this and other initial visits was the loss of all datums previously placed within the site. On June 15, Phillips placed a new permanent datum (an aluminum cap set in concrete) on a bulldozer push pile. He did this during an orientation tour of the site for the members of a School of American Research seminar on Pottery Mound (Schaafsma 2007) and for members of the SMU archaeology field school at Hummingbird Ruin. On September 7, Phillips led an additional field trip to the site, for past site volunteers.

On May 2, 2005, Phillips and Ballagh returned to the site and placed a second datum on the site, also on a bulldozer push pile. They also used a transit to set out spikes defining the orientation for a site grid aligned with the cardinal directions. On June 6, Phillips led a group including Dr. Heather Edgar and several UNM students and museum volunteers to examine and discuss site erosion and the exposed burials. During the visit, Phillips placed two additional permanent datums within the site, also on backdirt piles.

On July 7, Phillips and other UNM staff met with representatives of Isleta Pueblo at Pottery Mound to discuss the exposed burials and other site management issues. The Pueblo representatives' preference on burials was to rescue the eroding burials and rebury them within the site. Temporary storage at UNM, as well as nondestructive documentation, was acceptable.

On July 21 and 22, Dr. Edgar recovered the burials then exposed at the site (under a separate permit; see Dansehvari et al. 2005). On October 24, Phillips led a group of UNM students and museum volunteers to establish a reburial area within the site (within the disturbed backfill of the South Bulldozer Trench). The burials recovered in July were re-interred at that time.

Site visits were then suspended, due to access problems at a locked gate. On April 10, 2006, site access was re-established, and Phillips and Ballagh briefly inspected the access road and site. On May 20, Phillips led a group from the Friends of Tijeras Pueblo to the site (the Friends will be re-boxing the existing Pottery Mound collections and requested an orientation tour). On May 22,

Phillips and Ballagh began establishing a metric grid across the site, with rebar grid points at 25 m intervals. The site grid work continued on May 30 and on June 3, 5, 19, and 26.

During the field visits in question, a few minor additional activities took place, for example, collection of clay and temper samples from natural deposits and collection of a few surface artifacts. In addition, documentation of the prior studies at Pottery Mound began. The non-field studies have led to a descriptive report of the 1954 field school excavations (Ballagh and Phillips 2006) and also include a ceramic analysis, by Hayward Franklin, focusing on sherds from Linda Cordell's 1979 test pit (his report is currently in preparation). Other non-field activities have included collaboration with the School of American Research seminar on Pottery Mound, and assistance with the maps for the follow-up volume (Schaafsma 2007).

FIELDWORK UNDER THE 2006 MONITORING PERMIT, AND OTHER ACTIVITIES DURING THE PERMIT PERIOD

After the 2006 summer rains had passed and the access road was sufficiently dry, the 2006 field visits resumed, under the newly issued monitoring permit.

On November 7, Phillips and Ballagh continued extending the site grid. During this visit, Franklin searched for (but did not find) a source for a sand temper he identified in existing sherd collections.

On November 12, Phillips, Ballagh, and Franklin led a field trip to the site for participants in the New Mexico Archeological Council's 2006 fall conference.

On November 28, Phillips and Ballagh completed the site grid.

On December 12, Phillips, Franklin, and three volunteers visited the site to establish two erosion monitoring stations in advance of the 2006–2007 winter rains.

During 2006, non-field efforts included work on a descriptive report for the 1955 field school at the site.

Both before and during the 2006 site-specific permit, placement of the site grid was done with a total station. Phillips and Ballagh took elevations at the 25 m grid points, leading to the preliminary topographic map included as Figure 3. On that map, the permanent datum on the west bulldozer push pile is given an arbitrary elevation of 100 m. The heavy lines are 1 m contours; below 87 m the light lines represent 10 cm contours. The preliminary map is crude due to the limited number of data points, but the east and west bulldozer push piles and the site mound are all evident. The map is already useful in documenting the low overall gradient on much of the UNM parcel—a feature that will probably be the key to combating the secondary erosion impacts (see below).

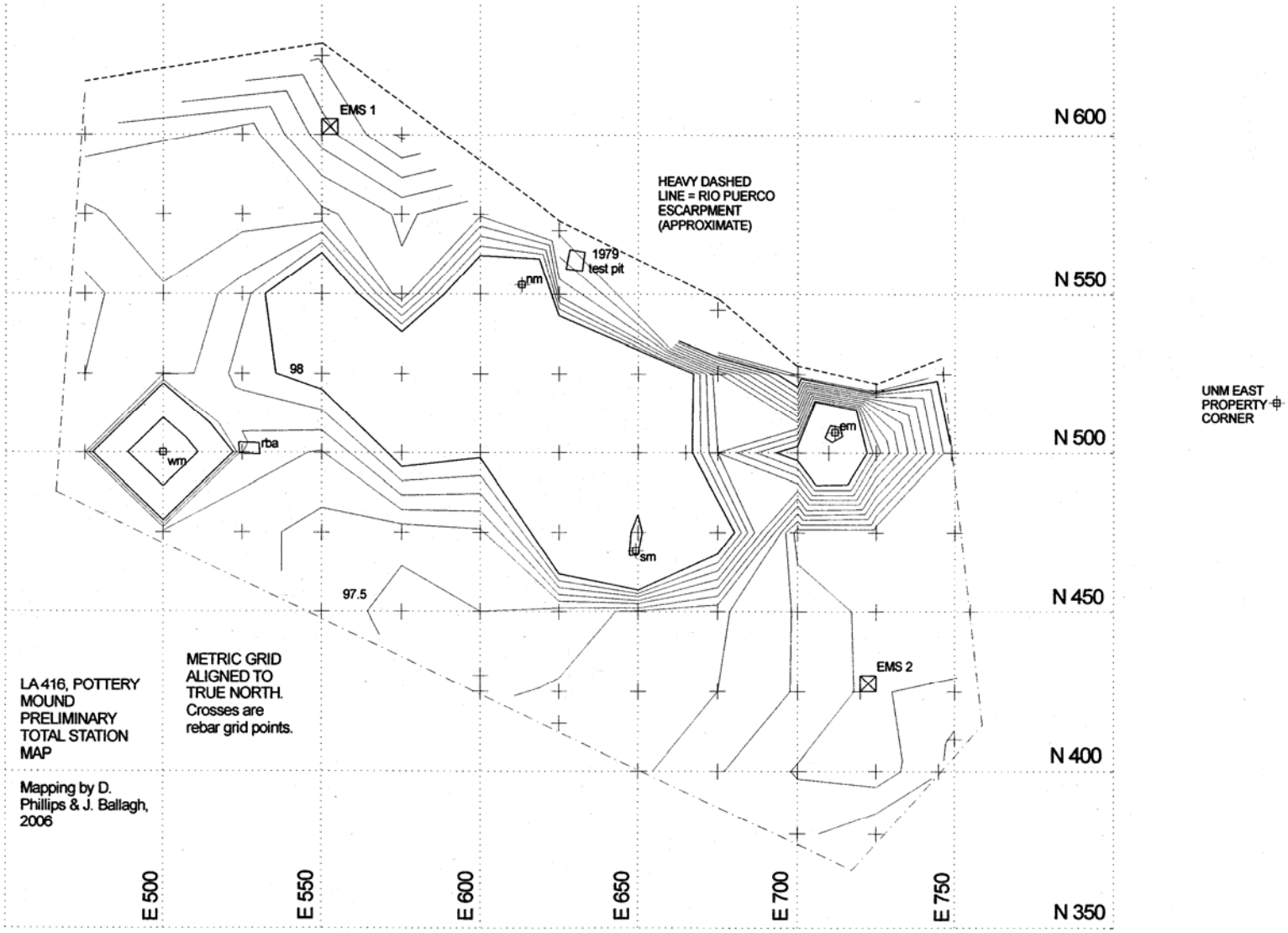


Figure 3. Preliminary topographic map of Pottery Mound, based on 2006 total station readings. WM, EM, NM, and SM are the permanent datums. Also shown: Cordell's 1979 test pit and the erosion monitoring stations (EMS 1 and 2).

The few surface collections made since 2003 have been of out-of-context materials, for example, sherds on the bulldozer push piles (Appendix A). The collections were mostly diagnostic sherds suitable for building a site-specific type collection. The collected objects will be permanently curated by the Maxwell Museum, along with the site records.

For management purposes, site erosion can be broken down into a primary impact—massive sediment removal due to wandering of the entrenched active floodplain of the Rio Puerco—and secondary impacts—sediment removal caused by sheet erosion, soil piping, and arroyo formation (due, in turn, to the elevation difference between the Rio Puerco floodplain and the site). Figure 4, a GIS rendition of georeferenced aerial photographs, examines the primary impact. The figure shows the edge of the Rio Puerco scarp in 1953, when the entrenched floodplain was still some distance from the mound; in 1975, when the Rio Puerco had chewed its way past and slightly into the mound; and in 1996. The near lack of change between 1975 and 1996 is noteworthy. In 1981 the Army Corps of Engineers built a berm across the mouth of the new "bay" northeast of the mound, deflecting the Rio Puerco away from the site. The Corps' berm has been effective in stopping the primary erosion impact to the site. The berm is eroding, however, and will need to be checked periodically as part of the site monitoring program. Documentation of the berm's condition will begin in 2007.

Documentation of secondary erosion impacts was deferred until the creation of the master site grid, which was completed in November. As is described in the monitoring plan, the basic approach for monitoring secondary erosion impacts is the creation and periodic recording of 5 by 5 m units. During the final field trip for the year, two such units were established. Erosion Monitoring Station 1 (E 550–555, N 600–605) is near the Rio Puerco scarp, in an area of surface deflation and incipient soil piping. EMS 2 (E 700–705, N 425–430) is near the Southeast Arroyo, in an area where tributary rills have formed.

During placement of the two monitoring stations, it became apparent that the methods proposed in the monitoring plan should be modified. Instead of involving five pieces of rebar (one at each corner of the unit, and one at its center), the stations were established using nine pieces of rebar (the additional four pieces being placed along the edges of the unit, each halfway between two corner pieces). The increased number of rebar measuring points will provide finer-grained data on soil deflation, and make it easier to sketch the surface of the unit. In addition, the original plan involved taking a minimum of two photographs of the unit, one while standing 1 m from the southwest corner of the unit and the other while standing 1 m from the southeast corner of the unit. The revised approach includes those photos but also includes a pair of photos taken while standing about 2 m from the corners in question, as well as a pair of "overview" photos taken while standing well back from the unit corners. The closer photos provide details of the changing site surface, while the photos taken farther back do a better job of documenting the entire unit. A new version of the project's erosion monitoring form, reflecting these changes, is attached to this report (Appendix B). In 2007, additional erosion monitoring stations will be placed at various locations within the site.

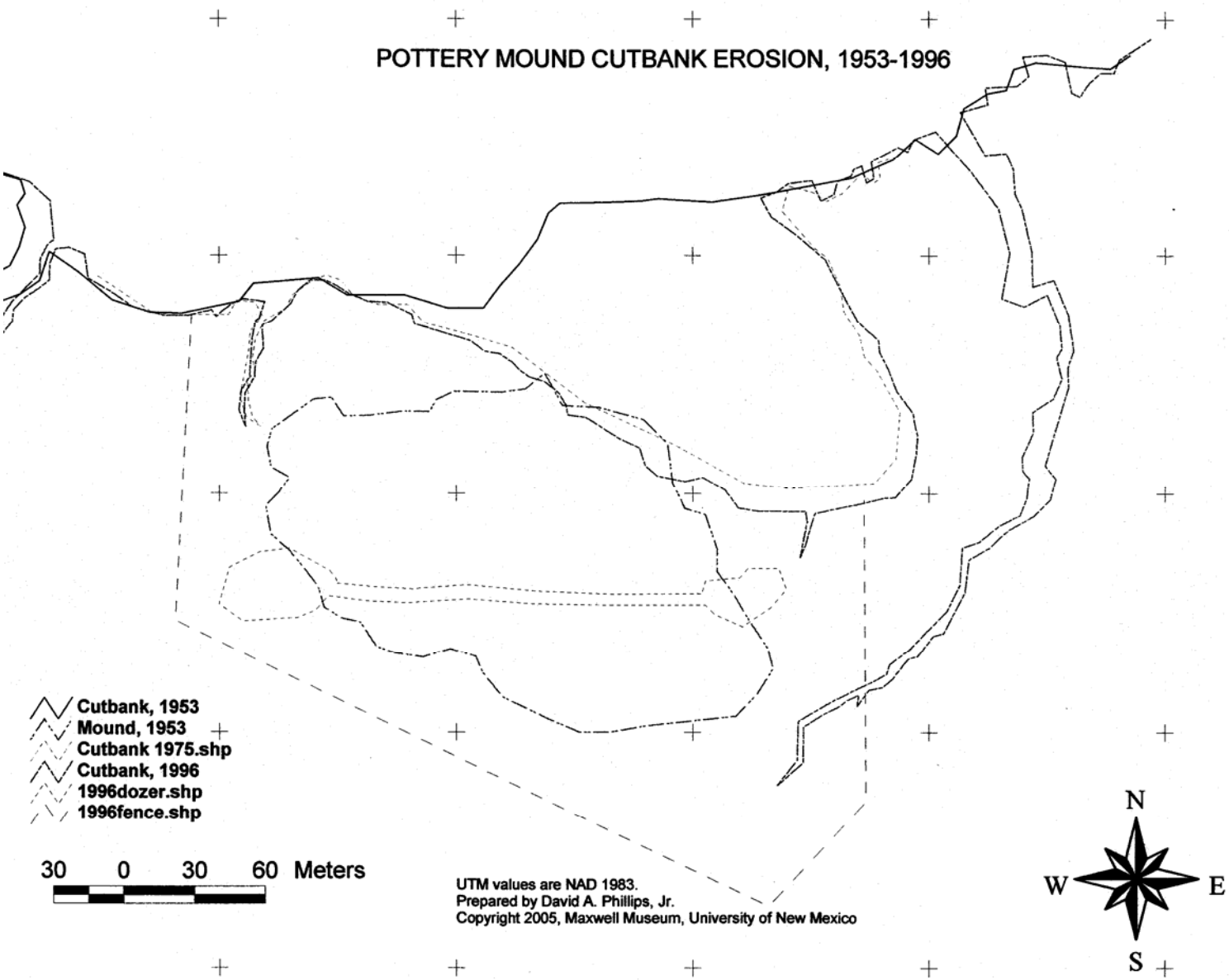


Figure 4. Gross erosion due to wandering of Rio Puerco floodplain, 1953–1996. Crosses mark 100 m intervals.

CONCLUDING REMARKS

The long-term monitoring of Pottery Mound is barely underway, so this report must be considered an early progress report rather than a research report. Each year, additional monitoring reports will be prepared and, we hope, will provide progressively more information. The field monitoring of the site must be considered part of an effort that also includes curation, study, and reporting on notes and collections from work in years past. The combined effort will help ensure not only the survival of Pottery Mound but a better understanding of its place in Pueblo culture history.

REFERENCES CITED

Ballagh, Jean H., and David A. Phillips, Jr.
2006 *Pottery Mound: The 1954 Field Season.* Maxwell Museum Technical Series No. 2. University of New Mexico, Albuquerque.

Dansehvari, Shamsi, Monica Mondragón, and Heather J. H. Edgar
2005 Salvage Excavations in Fall 2005 at Pottery Mound (LA 416), New Mexico. Report by Osteology Laboratory, Maxwell Museum, University of New Mexico, Albuquerque. Maxwell Museum Archive, Catalogue Nos. 2005.92.1 (paper), 2005.92.2 (CD).

Hibben, Frank C.
1955 Excavations at Pottery Mound, New Mexico. *American Antiquity* 21:179–180.

1966 A Possible Pyramidal Structure and other Mexican Influences at Pottery Mound, New Mexico. *American Antiquity* 31:522–529.

1967 Mexican Features of Mural Paintings at Pottery Mound. *Archaeology* 20(2):84–87.

1975 *Kiva Art of the Anasazi at Pottery Mound.* KC Publications, Las Vegas.

Phillips, David A., Jr.
2006 *Archaeological Monitoring Plan for LA 416, Pottery Mound, Valencia County, New Mexico, Calendar Year 2006.* Maxwell Museum of Anthropology, University of New Mexico, Albuquerque. Maxwell Museum Archive, Catalogue No. 2006.1.162.

Schaafsma, Polly (editor)
2007 *New Perspectives on the Pottery Mound Pueblo.* University of New Mexico Press, Albuquerque. In press.

Appendix A

RECENT ACCESSIONS FROM POTTERY MOUND

Maxwell
Accession No. Description

Collections and notes from 2006 site monitoring program: processed to date

2006.47.1	Sherds found in bed of SE Arroyo; to type collection
2006.47.2	Sherds found on E push pile of South Bulldozer Trench; to type collection
2006.47.3	Piece of burned daub with impressions; site surface; point provenienced
2006.47.4	Two stone beads and one blank; on ant hill
2006.47.5	Shell (?) bead; on ant hill
2006.47.6	Jeddito B/Y sherd; on ant hill; to type collection
2006.46.7	Sherds from base of Rio Puerco scarp; to type collection
2006.47.8	Sherds from bed of SE Arroyo; to type collection
2006.47.9	Sherds from W push pile of South Bulldozer Trench; to type collection
2006.47.10	Sherd from E push pile of South Bulldozer Trench; to type collection
2006.47.11	Unusual crystal from E push pile of South Bulldozer Trench
2006.47.12	Turquoise bead from surface of backfill in 1979 test pit

Other accessions since 2003

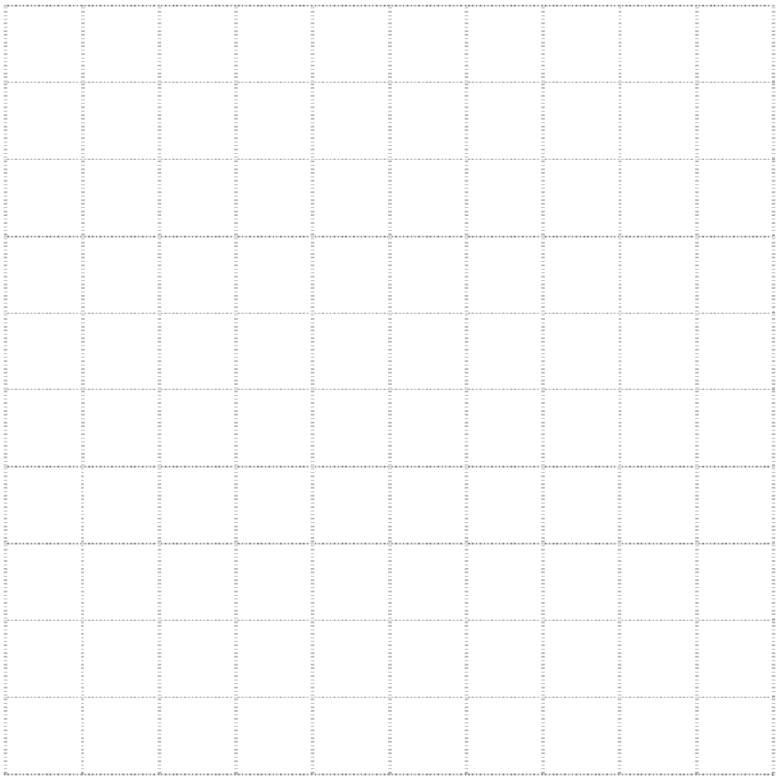
2003.23	1954 Field School materials recovered from Hibben's Lomas lab in 2003
2003.24	1955 Field School materials recovered from Hibben's Lomas lab in 2003
2003.25	1958 Field School materials recovered from Hibben's Lomas lab in 2003
2003.27	1960 fieldwork materials recovered from Hibben's Lomas lab in 2003
2003.28	1961 Fieldwork materials recovered from Hibben's Lomas lab in 2003
2003.29	Documents related to 1981 bank stabilization by Corps of Engineers
2003.30	Pottery Mound "salvage" excavations—materials recovered from Hibben's Lomas lab in 2003
2003.31	Miscellaneous Pottery Mound materials, including items recovered from Hibben's Lomas lab in 2003 but not datable at time of recovery.
2003.37	1957 Field School materials recovered from Hibben's Lomas lab in 2003
2004.21	Betty Garrett materials relating to Hopi yellow wares and plant materials from Pottery Mound
2004.27	Newly acquired materials from site surface, 2004 (.1, arrow point; .2 *Olivella* shell)
2004.38	1979 (Cordell) field school materials not already catalogued as of 2004
2005.6	J. J. Brody 1954 student paper with kiva mural illustrations; based on 1954 field session.
2005.36	Quadruped fetish from UNM Anthropology Club excavations, probably in 1962
2006.92	Report for 2005 burial salvage work (see Dansehvari et al. 2005)
2006.1	Miscellaneous archive items; Pottery Mound materials are .46,.47, .57–.63, .144, .149, .150, .162, .163)
2006.44	Avifaunal remains analyzed by Lyndon L. Hargrave
2006.55	Early 1970s private collection, made with permission of site owners

Appendix B

REVISED VERSION OF THE EROSION MONITORING FORM

LA 416, POTTERY MOUND: EROSION MONITORING REPORT

Station No. _____ at E _____ to _____; N _____ to _____



Monitoring unit is 5 by 5 m, aligned with site grid, north to top of page. Monitoring rebar at center and corners of unit and halfway along each edge. Mark eastings and northings for corner rebar. Sketch in rills, soil pipes, active sheet erosion, exposed deposits, vegetation, cultural features, etc.

Depth from top of monitoring rebar to soil, to 0.1 cm:

SW corner: _____.__ Center S edge: _____.__ SE corner: _____.__

Center E edge: _____.__ NE corner: _____.__ Center N edge: _____.__

NW corner: _____.__ Center W edge: _____.__ Center of 5x5: _____.__

Photography: place scaled north arrow in photo. Stand 1 m SE of SE corner and take photo of unit. Then stand 1 m SW of SW corner and take photo of unit. Repeat for each corner while 2 m from corner; repeat with overview shots.

Changes since previous report, other comments:

Form prepared by _____Date _____-_____-_____

If found, please mail to Maxwell Museum, University of New Mexico, Albuquerque, NM 87131.