

THE POTTERY MOUND MONITORING PROGRAM, 2007

By

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Maxwell Museum Technical Series No. 6

Permit Nos. NM-07-202-S (survey and inventory),
-M (monitoring), and -T (test excavation) and ABE-07-202
NMCRIS Activity No. 108736

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INTRODUCTION

In December 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 2007. This report summarizes work accomplished in 2007, as well as related developments. 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-076-202-S (survey and inventory), -M (monitoring), and -T (test excavation), and ABE-07-202 (unmarked burials). The NMCRIS activity number is 108736.

UNM owns Pottery Mound; the parcel is 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 a monitoring plan (Phillips 2006). This report refers to 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.

The site perches on a 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 information that will aid the interpretation of existing notes and collections.

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. Beginning in 2003, however, original notes, maps, and photographs from Hibben's Pottery Mound research were discovered in his emeritus office and labs, and additional photographs were found at his home. It became apparent that a reconstruction of Hibben's fieldwork would be possible.

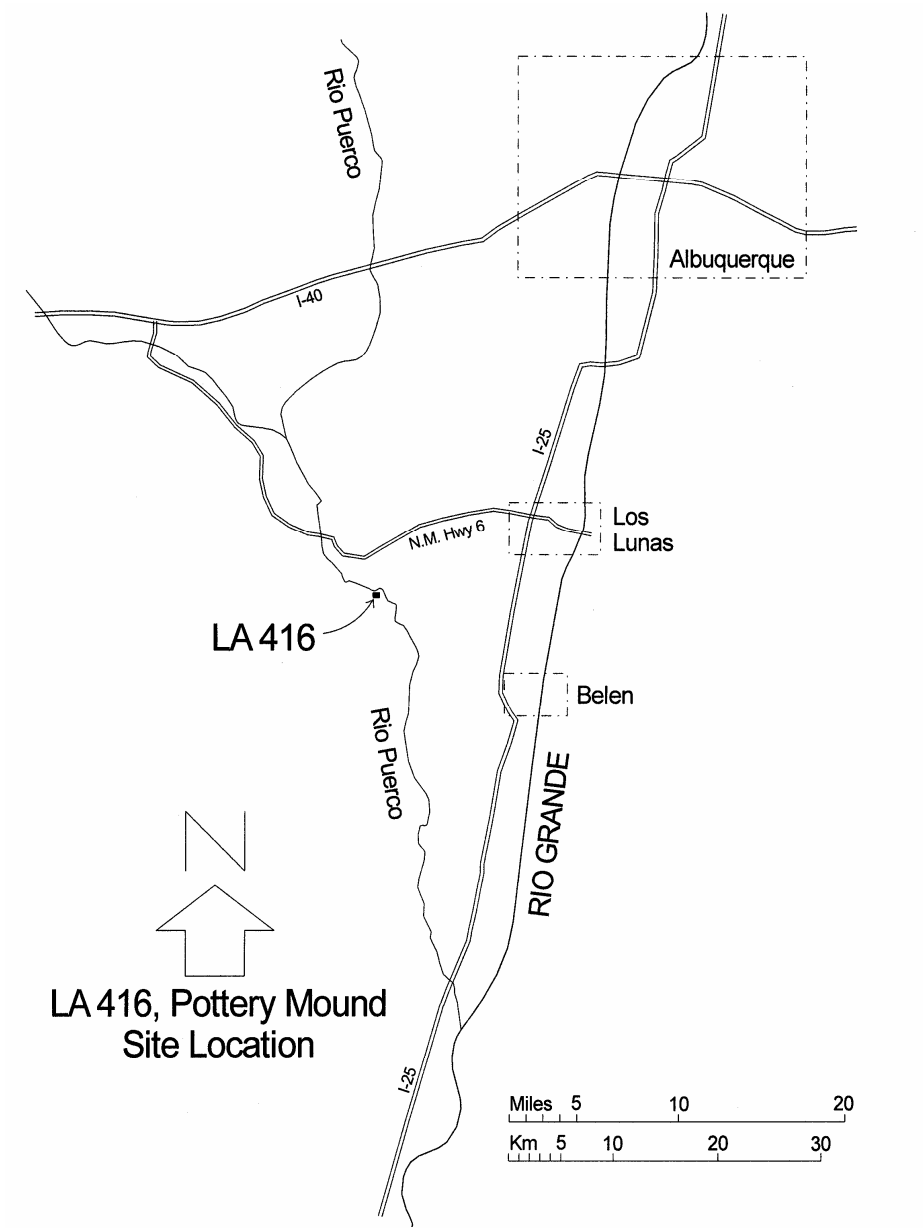


Figure 1. Project location.

In addition, in 2004 Polly Schaafsma led a symposium on Pottery Mound at the School of American Research in Santa Fe, including archaeologists who had been students at Pottery Mound. The symposium, supplemented by the first gleanings from Hibben's records, resulted in *New Perspectives on Pottery Mound Pueblo* (Schaafsma 2007)—which should stand as the baseline description of the site for years to come.

In 2004, David Phillips began a site monitoring project at Pottery Mound (Phillips and Ballagh 2007). Subsequent activities included the establishment of permanent survey monuments and a rebar site grid (to replace the various earlier datums, which had disappeared), the collection of map data, and limited collection of diagnostic surface artifacts. In 2005, UNM staff met with representatives of Isleta Pueblo at Pottery Mound to discuss exposed burials and other site management issues. Soon after that meeting, Dr. Heather Edgar began a program of recovery of eroding burials. Consistent with the wishes of Isleta Pueblo, recovered burials will be reburied on site after nondestructive study. A portion of the UNM parcel has been marked for use as a reburial area, and one reburial has already taken place. In addition, the process of writing up the various field seasons has begun. A descriptive report of the first (1954) field season has been published (Ballagh and Phillips 2006), and a report on the second (1955) field season is being prepared.

FIELDWORK UNDER THE 2007 MONITORING PERMIT, AND OTHER ACTIVITIES DURING THE PERMIT PERIOD

Field visits to Pottery Mound generally take place during the dry seasons of late spring and early fall. In the winter and summer, heavy rains make the access road impassable or nearly so.

On March 12, David Phillips and Maxwell Museum volunteer Jean Ballagh made their first site visit of the year. The winter rains had not caused major damage to the site, and no signs of vandalism were seen. Phillips and Ballagh collected an out-of-context sample, of fused burned corn, from the west push pile for the South Bulldozer Trench (Appendix A). They then used a total station to continue mapping the site.

On April 20, Phillips drove to the site to check on site access. On the 22nd he led a tour to the site for the Archaeological Society of New Mexico, and on the 29th he led a second tour for the Maxwell Museum.

On April 30 and July 16, Phillips and Ballagh continued to map the site.

On September 11, during a break in the summer rains, Phillips and Ballagh resumed their work on the site map. During this work, two adjacent burned rooms, F2007.2 and F2007.3, were identified. An abundance of maize ears, cobs, and kernels was eroding from the surface of F2007.3, and a sample of that surface material was collected.

Modest sheet erosion and deepening of arroyos, due to the summer rains, was observed during the first fall visit on October 9 (unfortunately, there was no way to quantify this erosion). The trip that day included Jane Kelley, Joe Stewart, Hayward Franklin, Steve Rospopo, and Phillips

and Ballagh. Franklin and Rospopo examined local potters' materials, while Kelley and Stewart were there to visit the site. Phillips and Ballagh attempted to collect mapping data during the visit but were unable to do so due to mechanical problems with the total station.

On October 23, Phillips and Ballagh again attempted to collect mapping data but encountered problems with the total station. On November 6 and 27, following repairs to the total station, Phillips and Ballagh were able to continue mapping the site. On the 27th, the field trip also included Hayward and Holly Franklin, who hosted an Isleta potter who was interested in visiting the site.

Other developments, not part of the permitted activity, are worth describing. The publication of *New Perspectives on Pottery Mound* was mentioned. In 2007, Jean Ballagh wrote the bulk of a draft report on the 1955 field school at the site. The year also saw the start of a project to reorganize the collections from Pottery Mound. Prior to this time, the surviving bulk collections—hundreds of cubic feet—were in non-archival boxes and, in many cases, in the original grocery bags. A contingent from the Friends of Tijeras Pueblo decided to take on the Pottery Mound bulk collections after reorganizing the Tijeras Pueblo materials. All of the Pottery Mound materials are being placed in archival zip-lock bags, in clear plastic snap-top bins, with critical information marked on slips of acid-free archival bond paper. During this process, bulk artifacts are catalogued down to the bag level. The catalogue data are being entered in an Excel spreadsheet, preparatory to their being uploaded into the permanent Maxwell Museum database. When the re-boxing project is done, it will be possible to sort the collection data by artifact type or provenience and derive lists of materials by box number and location.

DISCUSSION

New Perspectives on Pottery Mound utilized maps prepared by Phillips in 2006, based in turn on Hibben's field and published maps and on aerial photographs. The 2006 maps were limited by a near-lack of new field data. Figure 2 represents a second generation site map, which unlike the *New Perspectives* maps incorporates more than 500 total station points. The new map largely validates the composite presented in *New Perspectives* but includes a better fix on the location of the Duck unit–Big Man area (where Hibben did much of his “salvage” work) and on the relationship of the known features to the Rio Puerco scarp and property lines. As additional total station work is done, further updates to the site plan will be prepared. A larger-scale mosaic of the latest map will be included in the updated site form submitted with this report.

The 1979 UNM field school session at Pottery Mound produced a transit map of the site, and we are working to overlay that map on the total station base map. It appears, from the work thus far, that the Duck unit may represent, in part, accidental re-excavation of rooms exposed during the 1954 field school.

As of this report, map rendering has split into two paths. Planimetric rendering is still done with Autodesk's AutoSketch (Figure 2). Maps of this sort will be most useful for archaeological interpretation. Contour and related map rendering is now done with Golden Software's Surfer. Figure 3 shows a contour map prepared with that software.

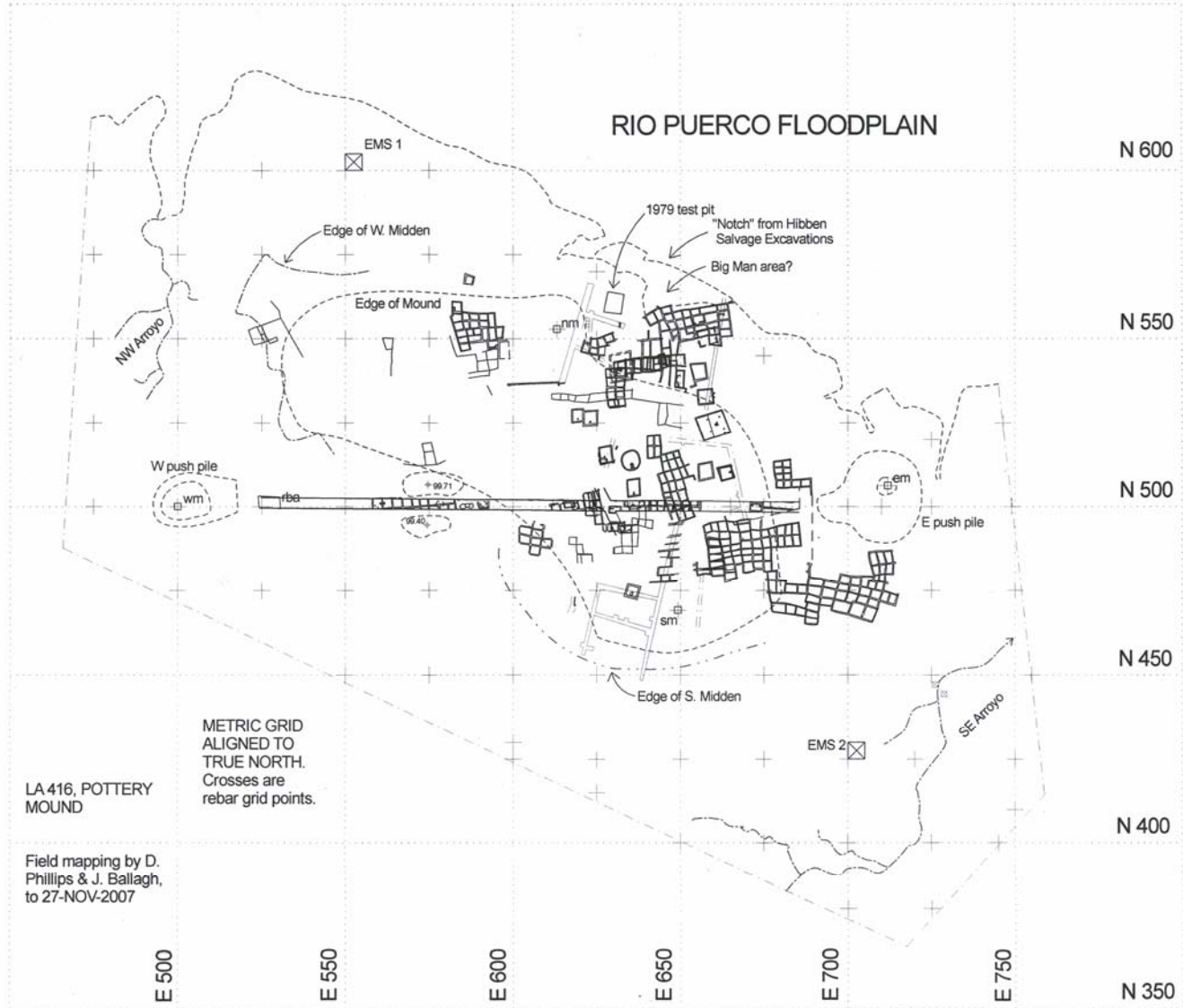


Figure 2. Updated plan of Pottery Mound.

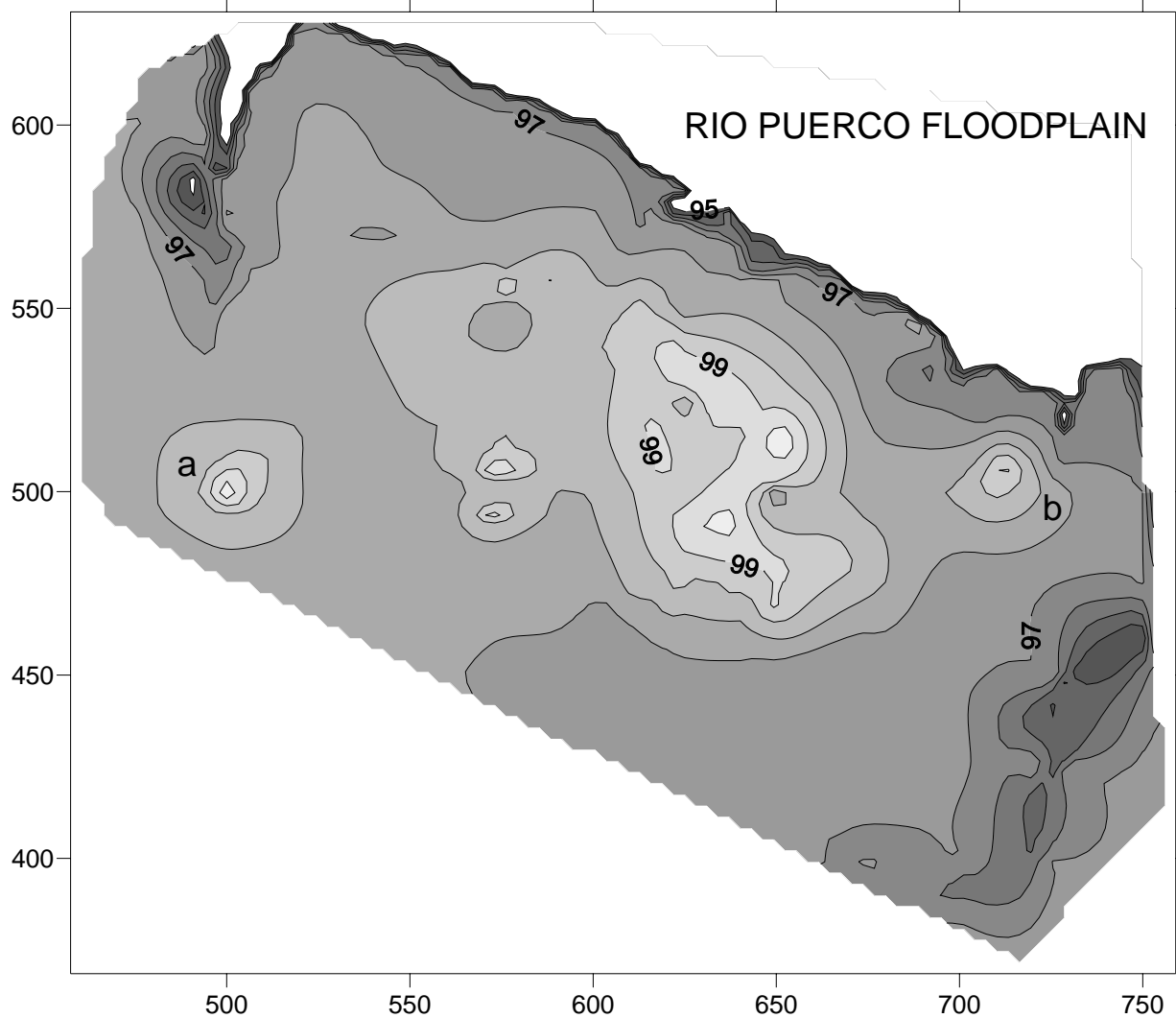


Figure 3. Contour map of Pottery Mound, using data collected through 2007. Contour interval is 0.5; monument on west push pile is defined as elevation 100. Notes: (a) west push pile (for South Bulldozer Trench), (b) east push pile.

A comparison with Figure 3 of last year's monitoring report (Phillips and Ballagh 2007) will show how much progress has been made. The main mound and the west and east bulldozer push piles are evident as surfaces above the 98 m contour. One specific problem with Figure 3 is the exaggerated width of the Southeast and Northwest Arroyos. Collection of additional map points, along the upper edges of the arroyos, will correct the problem.

In Figure 4, a vector map indicates the flow of surface water. This map also incorporates shaded relief. Vector maps should prove useful in developing erosion control strategies, for example, for checking surface water before it can enter arroyos. At present, however, Figure 4 is too crude to use for such planning. In 2008 we hope to collect map points outside the site, in order to understand whether any surface water is flowing onto the site from the south or west.

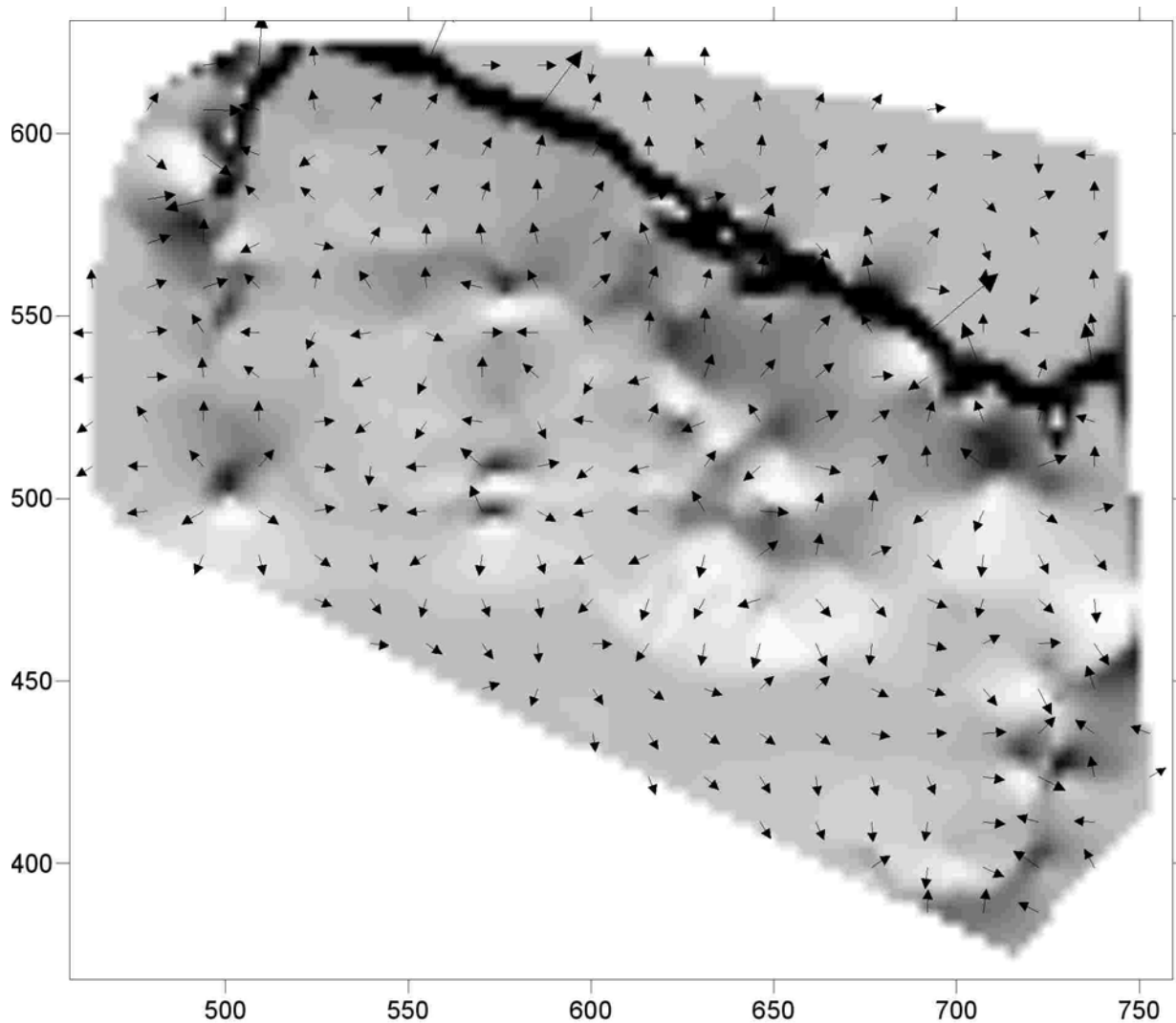


Figure 4. Map combining shading and surface slope vectors.

Collection of surface erosion data was to begin in 2007, but due to mechanical problems with the total station, the final field sessions of the year focused on general mapping rather than on the collection of surface erosion data. The two erosion monitoring stations established in 2006 were briefly inspected and conditions at those two locations did not seem much changed. Erosion Monitoring Station 1 is at E 550–555, N 600–605, near the Rio Puerco scarp, in an area of surface deflation and incipient soil piping. EMS 2 is at E 700–705, N 425–430, near the Southeast Arroyo, in an area where tributary rills have formed.

The general site mapping did include a number of shots in the Southeast and Northwest Arroyos. These data have been used to render profiles of the main channels of the arroyos (Figure 5). The result is a set of baselines on arroyo cutting, just as the plan map of the site shows their horizontal extent. When the arroyos are re-mapped in future years, the new profiles can be superimposed to determine the extent of growth in the arroyos. The data used to create Figure 5 are included in Appendix B.

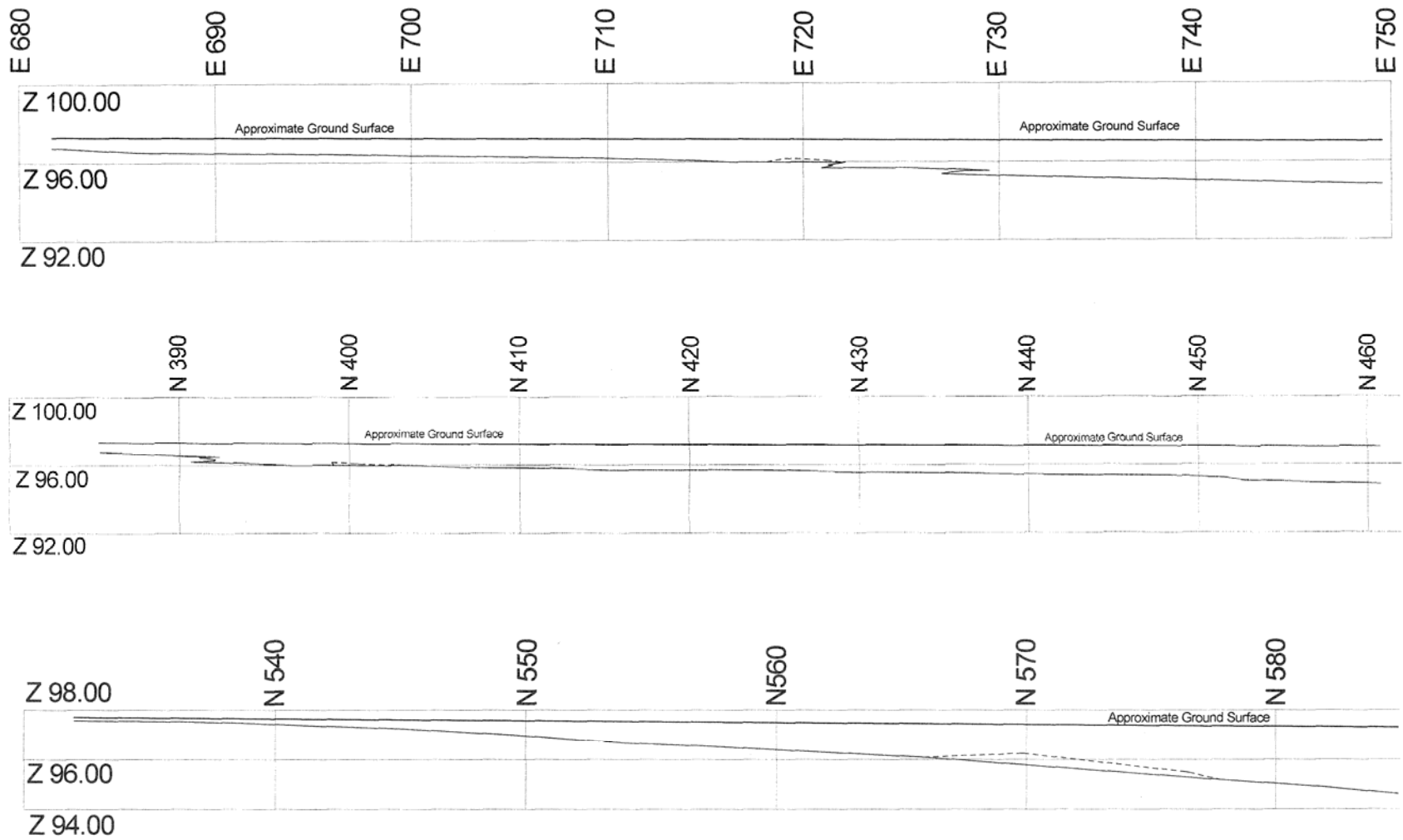


Figure 5. Three arroyo profiles. *Top*, Southeast Arroyo: depth plotted against west-to-east trend. *Middle*, Southeast Arroyo: depth plotted against south-to-north trend. *Bottom*, Northwest Arroyo: depth plotted against south-to-north trend. Rises are present where bank collapse has occurred. Note the steeper drainage profile for the Northwest Arroyo.

In 2007, as in recent years, no evidence of looting was seen. This good news is undoubtedly due to local access restrictions imposed by Isleta Pueblo.

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Schaafsma, Polly (editor)

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Appendix A

2007 ACCESSIONS FROM POTTERY MOUND

Maxwell

Accession No. Description

Collections from 2007 site monitoring program. “Z” is elevation reading (increasing with height).

- 2007.37.1 Charred and fused maize, found eroding from surface of west push pile of South Bulldozer Trench
- 2007.37.2 Turquoise pendant, found on surface tall mound that is probably backdirt. E 651.67, N 512.75, Z 99.87
- 2007.37.3 Obsidian arrowhead, found on same tall mound as 2007.37.2. E 651.67, N 512.34, Z 100.01
- 2007.37.4 Selenite fragment from site surface. E 650.78, N 480.69, Z 99.09
- 2007.37.5 Basketmaker II style point of tan chert, from site surface. E 606.53, N 558.65, Z 97.75
- 2007.37.6 Burned maize from surface of SE corner of “Burned Room 2,” Feature 2007.__. Collection area E 613.79–615.07, N 525.02–527.10. SE corner of room Z 99.03
- 2007.37.7 Sherd of Pottery Mound Polychrome, with two red pigments. Out of context; found washed out in Hibben salvage area at north edge of site.
- 2007.37.8 Two mineral samples (limonite and possible hematite) found on surface. E 610.87, N 473.44, Z 98.14.

Other 2007 accessions of interest

- 2007.1.15 Vivian, Gwinn, printouts of e-mails, also correspondence, relating to Pottery Mound and dating 2003–2004
- 2007.1.105 Letter from Watson Smith to Natalie Vytlačil, Feb. 19, 1958, regarding Hopi pottery from Pottery Mound
- 2007.1.108 Anonymous notes regarding Kiva 8
- 2007.1.136 Franklin, Hayward, 2007, *The Pottery of Pottery Mound*.
- 2007.37 Accession number for Pottery Mound re-boxing project

Appendix B

TOTAL STATION DATA ON POTTERY MOUND ARROYO DEPTHS

| Grid East | Grid North | Vertical | Description | Date | Shot number (by day) |
|------------------|-------------------|-----------------|--------------------|-------------|-----------------------------|
| 681.647 | 385.272 | 96.757 | SE Arroyo | 11-Sep-2007 | 4 |
| 686.080 | 390.221 | 96.533 | SE Arroyo | 11-Sep-2007 | 5 |
| 689.946 | 392.333 | 96.483 | SE Arroyo | 11-Sep-2007 | 6 |
| 693.584 | 391.119 | 96.451 | SE Arroyo | 11-Sep-2007 | 7 |
| 697.506 | 390.163 | 96.401 | SE Arroyo | 11-Sep-2007 | 8 |
| 700.073 | 392.097 | 96.340 | SE Arroyo | 11-Sep-2007 | 9 |
| 704.641 | 392.238 | 96.278 | SE Arroyo | 11-Sep-2007 | 10 |
| 709.122 | 390.680 | 96.211 | SE Arroyo | 11-Sep-2007 | 11 |
| 713.147 | 393.535 | 96.106 | SE Arroyo | 11-Sep-2007 | 12 |
| 716.374 | 396.730 | 95.976 | SE Arroyo | 11-Sep-2007 | 40 |
| 718.119 | 399.061 | 95.979 | SE Arroyo | 11-Sep-2007 | 41 |
| 719.118 | 398.972 | 96.154 | SE Arroyo | 11-Sep-2007 | 42 |
| 721.176 | 400.619 | 96.062 | SE Arroyo | 11-Sep-2007 | 43 |
| 722.127 | 403.979 | 95.951 | SE Arroyo | 11-Sep-2007 | 44 |
| 721.261 | 407.457 | 95.824 | SE Arroyo | 11-Sep-2007 | 45 |
| 721.498 | 411.476 | 95.796 | SE Arroyo | 11-Sep-2007 | 46 |
| 720.923 | 415.282 | 95.669 | SE Arroyo | 11-Sep-2007 | 47 |
| 725.389 | 424.047 | 95.676 | SE Arroyo | 6-Nov-2007 | 92 |
| 728.101 | 427.318 | 95.591 | SE Arroyo | 6-Nov-2007 | 93 |
| 729.508 | 429.767 | 95.533 | SE Arroyo | 6-Nov-2007 | 94 |
| 728.232 | 433.390 | 95.508 | SE Arroyo | 6-Nov-2007 | 95 |
| 727.061 | 442.188 | 95.385 | SE Arroyo | 6-Nov-2007 | 96 |
| 727.518 | 448.131 | 95.340 | SE Arroyo | 6-Nov-2007 | 97 |
| 732.657 | 451.497 | 95.218 | SE Arroyo | 6-Nov-2007 | 98 |
| 740.678 | 452.720 | 95.023 | SE Arroyo | 6-Nov-2007 | 99 |
| 746.076 | 457.801 | 94.884 | SE Arroyo | 6-Nov-2007 | 100 |
| 749.528 | 460.772 | 94.805 | SE Arroyo | 6-Nov-2007 | 101 |

Note: in Figure 2, three tributary arroyos of the SE arroyo are shown, extending west from the SE arroyo. From south to north, these are Tributary Arroyos 3, 2, and 1.

| | | | | | |
|---------|---------|--------|--------------------|-------------|----|
| 685.358 | 391.033 | 96.573 | Tributary Arroyo 3 | 11-Sep-2007 | 23 |
| 683.591 | 393.968 | 96.616 | Tributary Arroyo 3 | 11-Sep-2007 | 24 |
| 682.214 | 397.856 | 96.690 | Tributary Arroyo 3 | 11-Sep-2007 | 25 |
| 682.615 | 398.943 | 96.692 | Tributary Arroyo 3 | 11-Sep-2007 | 26 |
| 680.728 | 399.529 | 96.747 | Tributary Arroyo 3 | 11-Sep-2007 | 27 |
| 678.398 | 400.138 | 96.785 | Tributary Arroyo 3 | 11-Sep-2007 | 28 |
| 676.915 | 401.351 | 96.803 | Tributary Arroyo 3 | 11-Sep-2007 | 29 |
| 675.157 | 401.130 | 96.821 | Tributary Arroyo 3 | 11-Sep-2007 | 30 |
| 673.455 | 402.711 | 96.839 | Tributary Arroyo 3 | 11-Sep-2007 | 31 |
| 671.827 | 403.876 | 96.892 | Tributary Arroyo 3 | 11-Sep-2007 | 32 |
| 669.884 | 403.449 | 96.924 | Tributary Arroyo 3 | 11-Sep-2007 | 33 |

| Grid East | Grid North | Vertical | Description | Date | Shot number (by day) |
|------------------|-------------------|-----------------|--------------------|-------------|-----------------------------|
| 668.219 | 403.698 | 96.791 | Tributary Arroyo 3 | 11-Sep-2007 | 34 |
| 666.870 | 404.771 | 96.973 | Tributary Arroyo 3 | 11-Sep-2007 | 35 |
| 664.346 | 405.035 | 96.996 | Tributary Arroyo 3 | 11-Sep-2007 | 36 |
| 662.092 | 406.965 | 97.058 | Tributary Arroyo 3 | 11-Sep-2007 | 37 |
| 658.092 | 407.233 | 97.106 | Tributary Arroyo 3 | 11-Sep-2007 | 38 |
| 653.338 | 406.428 | 97.149 | Tributary Arroyo 3 | 11-Sep-2007 | 39 |
| 710.094 | 393.208 | 96.244 | Tributary Arroyo 2 | 11-Sep-2007 | 13 |
| 707.993 | 394.422 | 96.331 | Tributary Arroyo 2 | 11-Sep-2007 | 14 |
| 705.524 | 394.740 | 96.439 | Tributary Arroyo 2 | 11-Sep-2007 | 15 |
| 702.414 | 396.240 | 96.520 | Tributary Arroyo 2 | 11-Sep-2007 | 16 |
| 701.242 | 397.505 | 96.535 | Tributary Arroyo 2 | 11-Sep-2007 | 17 |
| 698.054 | 396.325 | 96.682 | Tributary Arroyo 2 | 11-Sep-2007 | 18 |
| 695.938 | 398.200 | 96.773 | Tributary Arroyo 2 | 11-Sep-2007 | 19 |
| 694.158 | 400.532 | 96.840 | Tributary Arroyo 2 | 11-Sep-2007 | 20 |
| 691.916 | 401.051 | 96.896 | Tributary Arroyo 2 | 11-Sep-2007 | 21 |
| 691.309 | 403.816 | 96.958 | Tributary Arroyo 2 | 11-Sep-2007 | 22 |
| 724.763 | 441.342 | 95.454 | Tributary Arroyo 1 | 6-Nov-2007 | 104 |
| 721.794 | 440.682 | 95.558 | Tributary Arroyo 1 | 6-Nov-2007 | 105 |
| 719.351 | 437.323 | 95.867 | Tributary Arroyo 1 | 6-Nov-2007 | 106 |
| 717.270 | 434.074 | 95.986 | Tributary Arroyo 1 | 6-Nov-2007 | 107 |
| 713.891 | 431.412 | 96.304 | Tributary Arroyo 1 | 6-Nov-2007 | 108 |
| 710.799 | 429.397 | 96.554 | Tributary Arroyo 1 | 6-Nov-2007 | 109 |
| 491.229 | 584.911 | 94.603 | NW Arroyo | 27-Nov-2007 | 4 |
| 489.364 | 581.350 | 94.931 | NW Arroyo | 27-Nov-2007 | 3 |
| 491.914 | 577.749 | 95.177 | NW Arroyo | 27-Nov-2007 | 2 |
| 495.228 | 576.526 | 95.470 | NW Arroyo | 27-Nov-2007 | 1 |
| 496.228 | 569.894 | 96.230 | NW Arroyo | 12-Mar-2007 | 27 |
| 498.560 | 565.909 | 96.080 | NW Arroyo | 12-Mar-2007 | 29 |
| 498.111 | 557.000 | 96.540 | NW Arroyo | 12-Mar-2007 | 39 |
| 498.408 | 554.000 | 96.650 | NW Arroyo | 12-Mar-2007 | 40 |
| 495.415 | 549.472 | 96.990 | NW Arroyo | 12-Mar-2007 | 41 |
| 493.795 | 545.101 | 97.230 | NW Arroyo | 12-Mar-2007 | 42 |
| 494.858 | 541.409 | 97.360 | NW Arroyo | 12-Mar-2007 | 43 |
| 495.747 | 538.643 | 97.470 | NW Arroyo | 12-Mar-2007 | 47 |
| 493.315 | 536.189 | 97.530 | NW Arroyo | 12-Mar-2007 | 48 |
| 490.807 | 531.995 | 97.560 | NW Arroyo | 12-Mar-2007 | 49 |