J. HARKEY SITE 1 (LA 51333), A CORONA PHASE HOME IN NORTHWEST LINCOLN COUNTY, NEW MEXICO

By

Regge N. Wiseman

Maxwell Museum Technical Series No. 33

Maxwell Museum of Anthropology
MSC01, 1050, 1 University of New Mexico
Albuquerque, New Mexico 87131-0001
maxwellmuseum.unm.edu

2019

INTRODUCTION

Prior to 1950, archaeological work in the Sierra Blanca country of Lincoln county and in the northern part of Otero county in New Mexico was minimal and of small scale. Although Lehmer (1948) had included part of that area in his definition of the Jornada branch of the Mogollon culture, subsequent work in the foothills east of Sierra Blanca has shown that the prehistoric remains bear little resemblance (other than pottery) to those of the basins of the greater El Paso district. The excavations underpinning Lehmer's Jornada branch and phases, especially the late manifestation he called the El Paso phase, derived from villages adapted to the desert basins *west* of the mountain chain that includes the Sierra Blanca.

From 1950 through 1956 Texas Technological College (now University) conducted six seasons of excavation and some survey along the drainages in the eastern foothills of Sierra Blanca. TTC worked in the area surrounding the Capitan mountains and along Gallo Canyon near the village of Corona. In her dissertation, Jane Kelley (1966) defined the Corona and Lincoln phases for the northern part of the region (the Rio Bonito north to Corona), providing archaeologists with a better "fit" with the archaeological remains than Lehmer's phases. Kelley's dissertation research pursued her father's interest in elucidating connections between the prehistoric peoples of the southern Plains and those of the Southwest.

After completing her dissertation, Kelley completed a restudy of the excavated materials (Kelley 1979). In the mid-1980s, she and her colleague Joe D. Stewart began a second round of excavation and survey, this time mainly in the headwaters of Arroyo del Macho (east of the Jicarilla mountains and north of the Capitan mountains). The Capitan-North Archaeological Project (CNAP), like the restudy project Kelley published in 1979, was designed to provide more data on the Corona and Lincoln phases. The problem orientation focused on improving chronology, better defining subsistence practices, and sharpening the definitions of the phases. The excavations focused intensively on the Lincoln phase Robinson Pueblo (CL-40, LA 46326). Later in the project two Corona phase sites, CL-8 (LA 51333, J. Harkey Site No. 1) and CL-47 (LA 51334, Howard Harkey Site), were also excavated, but the work at CL-47 was minimal and inconclusive.

Unfortunately, CNAP was never fully published. Our best source of information on the work is a set of preliminary papers delivered by Kelley, Stewart, and their associates at the Fifth Mogollon Conference and published three years later (Beckett 1991).

The present report describes CL-8. Much of the information given here was obtained from a report by crew chief Ian Kuijt to the project directors (Kuijt 1986). Data on the pottery assemblage were obtained from project files in the archives of the Maxwell Museum of Anthropology, University of New Mexico. Information on the radiocarbon dates was extracted from the preliminary report presented by Stewart et al. (1991) at the Fifth Mogollon Conference.

Before proceeding, I will thank the following individuals for their assistance to this report. Jane Kelley helped compile the pottery list and supported my preparation of this report. David Phillips, then Interim Director of the Maxwell Museum (but now retired!), added his own

blessing and encouragement. Diane Tyink, Archivist at the Maxwell Museum, facilitated my research. Eric Blinman, Director of the Office of Archaeological Studies, has provided me with office space during all these years since my retirement from the OAS. Thatcher Rogers kindly calibrated the radiocarbon dates.

J. HARKEY SITE NO. 1

J. Harkey Site No. 1 (CL-8, LA 51333) was recorded by Patricia Spoerl, Forest Archaeologist for Lincoln National Forest. The site is partly on Forest land and partly on private land, southeast of the village of Jicarilla, Lincoln County (Figure 1). The local surface is a bajada representing the accumulation of materials eroded from the east side of the Jicarilla mountains. This slope forms the headwaters of Hasparos Canyon, a tributary of the Arroyo del Macho, which in turn empties into the Pecos River north of Roswell. The site is about 6900 feet (2100 m) above sea level.

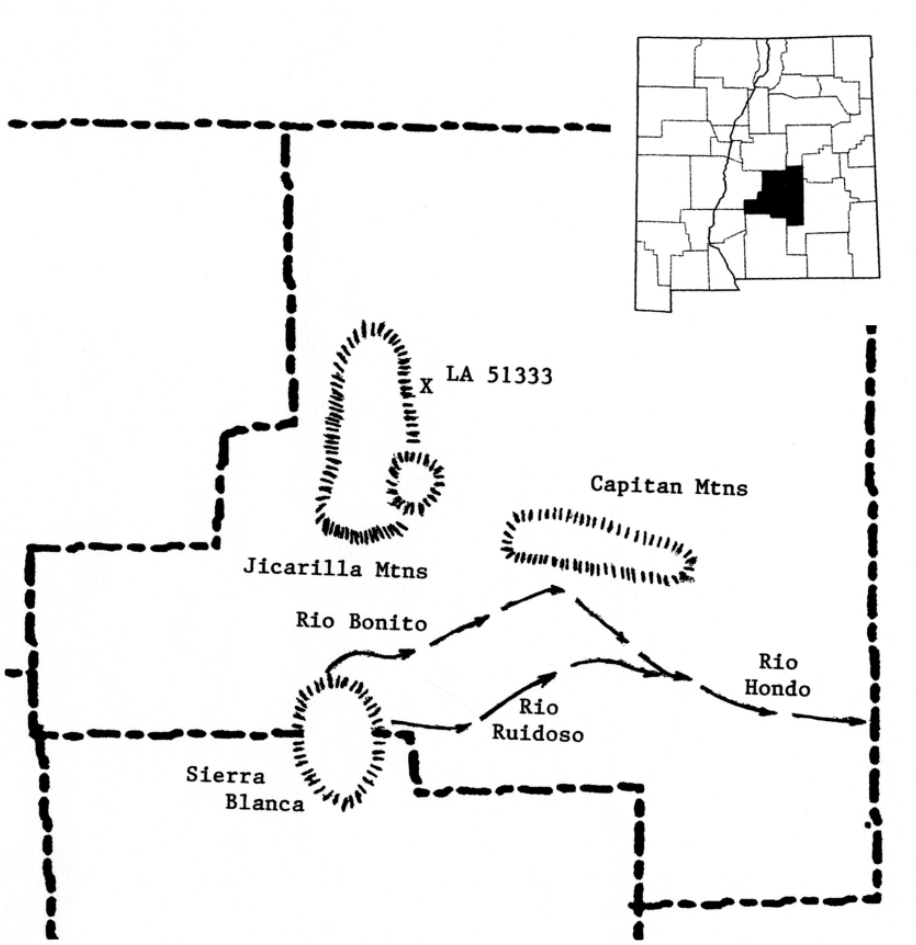

Figure 1. Location of J. Harkey Site No. 1.

CL-8 lies within a narrow belt of what Dick-Peddie (1993) calls Juniper Savanna (Ecotone). His next higher vegetation zone, Coniferous and Mixed Woodland, clothes the higher peaks of the Jicarillas to the southwest. Vast expanses of Plains-Mesa Grassland lie immediately to the east. According to Kuijt (1986), piñon trees grow near the site. In this natural setting the inhabitants of

CL-8 had ready access to deer, antelope, cottontails, jackrabbits, and a variety of smaller animal food species, as well as to a variety of wild plant foods. While bison bone has been recovered from sites in the Sierra Blanca region, the jury is still out on the question of whether small groups of bison would have grazed nearby. The massive Southern Herd of bison evidently stayed well to the east, across the Pecos River (Driver 1985:63).

Kuijt (1986:4–5) described CL-8 as part of a "distribution of archaeological surface material ... covering an area estimated to be approximately 20–30 acres [8–12 hectares]." The pottery he described consisted mainly of brown ware, with some Chupadero Black-on-white and a few other types. Chipped stone materials were dominated by black silicified shale, with occasional flakes of fine quartzite, obsidian, and "unidentified cryptocrystallines." No evidence of pit houses or surface structures ("pueblos") was noted on the fairly flat, grass-covered ground surface.

Using artifact distributions, auger tests, and proton magnetometry, the project selected part of the site for excavation. A series of contiguous 1 by 1 and 1 by 2 meter units was employed to expose an area measuring 10.6 by 6.5 m (Figure 2). This work revealed the presence of a three-room Corona phase structure with cimientos, three extramural fire pits, and four extramural pits (two small and two large). One or two additional pits were found beneath the structure.

The Structure

The word cimiento (Spanish for "foundation") is now in fairly common usage in Southwest archaeology and refers to wall bases consisting of lines of rocks. Supposedly, the upper walls of such rooms consisted of jacal—closely spaced vertical poles covered with mud. Unfortunately, this jacal superstructure is mostly hypothetical: archaeologists have not found post holes and wood impressions to prove the point. In fact, the matrix between the rocks is usually just like that on both sides of the cimiento alignment, rather than having the high clay content that characterizes true adobe. Perhaps these structures were mostly made without a mud covering (except for the roof?, See in the Feature 5 fill described below). The few Corona phase structures excavated thus far, including CL-8, lack interior hearths, suggesting warm-season occupation. Pole walls without interstitial mud or adobe would allow better air circulation on warm days. As another possibility, grass or brush (or both) could be woven into the pole structure. The resulting wattle work would permit more privacy but still allow for air circulation.

The structure at CL-8 was a north-south line of three contiguous rooms. The walls of the rooms labeled Feature 5 and Feature 6 were alignments of rock slabs, cobbles, and fragments of ground stone of varying sizes, set on their edges. In Feature 7, two walls consisted of double alignments of rocks. The north wall of this room lacked rocks, leading Kuijt to suggest that the wall was made of adobe. However, just beyond the supposed location of this adobe wall, the crew discovered a shallow trench with at least two rocks set on edge. Kuijt believed that this outlying feature (designated Feature 8) may have been part of the north wall of Feature 7. A gap was present in the wall dividing Features 5 and 7, leading Kuijt to suggest that it was a doorway between the rooms. The three room sizes are similar, varying from 2.1 by 1.7 m (Feature 6) to 2.2 by 2.0 m (Feature 5).

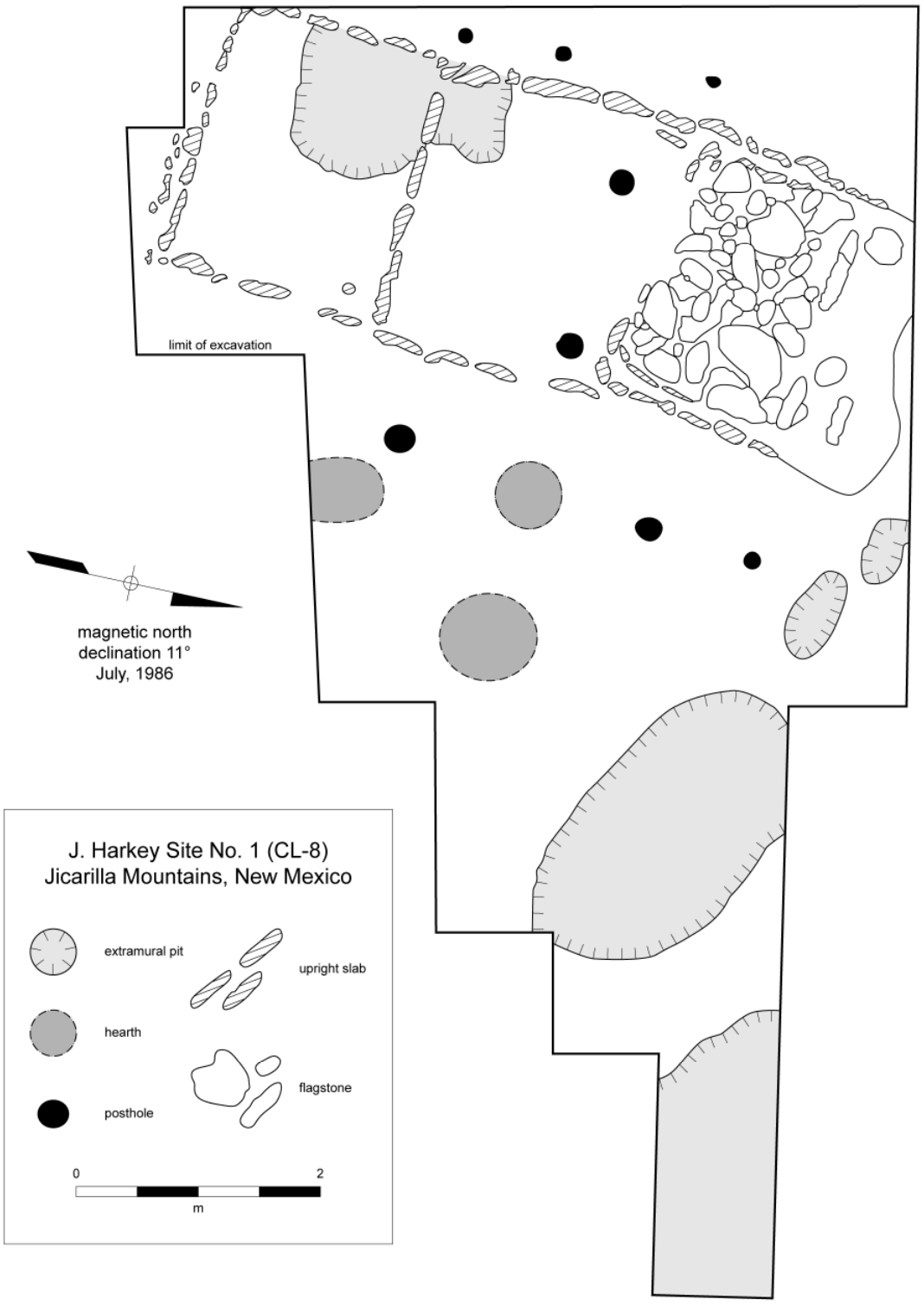

Figure 2. Plan of the excavations at J. Harkey Site No. 1. From south to north (left to right), the room numbers are 6, 5, and 7.

The floors of Features 5 and 6 consisted of packed dirt. Artifacts were lying horizontally on the floors, making them easier to identify. Both rooms had interior post holes. The two post holes in Feature 5 were 20 cm in diameter and 35 cm deep. The post hole in Feature 6 was much smaller.

Feature 7 had a flagstone floor incorporating several mano fragments. Kuijt mentioned the presence of a small post hole in the southeast corner of the floor, but it is not shown on Figure 2.

The excavation exposed two lines of exterior post holes, one paralleling the structure's west wall and the other paralleling the east wall. Both alignments corresponded to lines of at least three posts. The positions of the alignments suggested to Kuijt that there a porch roof was present on the east side of the structure, and possibly on the west side as well. Such roofs may have been added to keep rain or sunlight (or both) from entering the rooms. The possibilities are certainly thought-provoking.

In his description of Feature 5, Kuijt commented about the fill.

> Excavation revealed strong evidence for in situ burning of the structure. Large charcoal beams of 20 cm length were recovered throughout with adobe fragments located on the inside of the walls in upright positions. Reed impressions within the adobe were in vertical orientations, suggestive of a primary context for these deposits [Kuijt 1986:10].

Because this comment is part of the room description for Feature 5, I assume that it pertains only to that room, but we cannot be certain that it does.

The details on the excavation plan are sufficient to reconstruct the building sequence for the structure. Feature 7 apparently was the first room to be built. At some later date, Features 6 and 5 were abutted to Feature 7, probably as a single event and in that order. The two new rooms were not precisely aligned Feature 7, and Feature 5 was slightly misshapen because it was not squared with the south wall of Feature 7. Presumably, all three rooms were then used simultaneously.

Extramural Features

Three oval to circular hearths or fire pits were found clustered east of the middle room (Feature 5) of the structure. From largest to smallest, they measured 75 cm in diameter, 40+ by 55 cm, and 55 cm in diameter.

Four other extramural pits were uncovered. Two small, shallow pits were elongated ovals in plan. Although Kuijt stated that both pits were less than 50 cm "in diameter," his map shows them to be larger. The larger of the two was 75 cm long and 40 cm wide. The smaller one was 65 cm long and 35 cm wide. No evidence of their function was noted.

The two larger pits were Features 2 and 4. Feature 2 was bell-shaped. Its collapsed opening measured about 2.6 by 1.60 m. The pit was 1.2 m deep (as measured from the top of the adjacent sterile soil to the bottom of the pit). Kuijt's vertical profile of the pit shows a cylindrical upper

portion and a bulbous bottom portion, a shape that is new for Sierra Blanca region bell-shaped pits. The bottom of the pit had three rock slabs The prehistoric fill "included small charcoal fragments, ceramics, lithics, and large pieces of adobe" (Kuijt 1986:13). Kuijt did not speculate about the pit's function, but it is widely assumed that such pits were used for storage, probably of foodstuffs. Kuijt also mentioned that the upper portion of the pit was partially cut by another pit dug during the historical period.

Feature 4 was a large pit that was only partially exposed. When it became apparent that the fill was heavily disturbed by rodents, Kuijt decided to forego complete outlining and excavation of the feature. The portion of the feature exposed by excavation measured 2.3 m east-west by 1 m north-south. Given these dimensions and the orientation of the exposed side wall (northwest to southeast, as occurred in Feature 2), one has to wonder whether Feature 4 was a pit house.

Underlying the floors of the middle and south rooms (Features 5 and 6) of the structure, Feature 9 represented either a single pit with an odd shape or two overlapping pits. Feature 9 was 40 cm deep. Feature 9 was overlain by wall stones for both Features 5 and 6, indicating two details of the site's construction history. First, the pit or pits extended beyond outside the confines of the two rooms. Second, the pit or pits were created and used before Features 5 and 6.

Length of Occupation

In recent decades, Southwestern archaeologists have become aware that many prehistoric sites represent short occupations. Earlier, long occupations were assumed because the attending pottery types were known to have been made for 100 years or more. In addition, larger villages in "central places" often have stratified deposits bearing tens of thousands of potsherds, lithic debris, and other artifacts, thereby indicating lengthy or repeated occupations or both. On the other hand, many smaller sites often are not located at "central places," produce small amounts of material culture, and lack other indications for extended occupation.

During the Dolores Project in southwestern Colorado, Kohler and Blinman (1987:8, Figure 2) drew on "ethnographic data and Dolores area vessel inventory data" and estimated that a household's annual breakage resulted in a deposition rate of about 600 sherds per year. Without getting into the many caveats and objections regarding this exercise and its results, I suggest that in terms of accuracy, this figure is "in the ballpark." I further propose using Kohler and Blinman's 600 sherds per annum rate as a rough yardstick for estimating the duration of site occupations elsewhere among pueblo-dwelling peoples.

The J. Harkey No. 1 site assemblage numbers about 6200 sherds (Table 1), suggesting an occupation duration of roughly ten years. Those who object that not every sherd was recovered by the project are welcome to double that time span. Given the insubstantial nature of the structure, the large fraction of the site that was excavated (both inside and outside the structure), and the quantity of recovered artifacts, it seems more reasonable to suggest that the site was established, used, and abandoned during a single generation—at most—rather than over the 100 years that might have been suggested in earlier studies.

Table 1. Potsherds.
(Date ranges are based on Breternitz 1966.)

Type or Category	Number	Percent	Date Range (A.D.)
Locally Made Types			
Chupadero Black-on-white	745	11.9	1050 to 1475
Jornada Brown	5354	85.8	500 to 1350/1400
Brown indented corrugated	29	0.5	
Red-on-terrracotta	21	0.3	
Imported Types			
Red Mesa Black-on-white	13	0.2	875 to 1040/1125
Gallup/Puerco/Red Mesa Black-on-white	3	< 0.1	
Mimbres area black-on-white	2	<0.1	775 to 1150 or 1200
Miscellaneous sherds			
Other/not identified	70	1.1	
Total	6237	100.0	

Chronology

Radiocarbon Dating

Four radiocarbon dates were obtained for CL-8 (Table 2). The samples were processed at the Radio-Isotope Direct Detection Lab using the AMS technique. The results were calibrated using CALIB 6.0 (Stuiver et al. 2018).

All of the dates are derived from carbonized annual plants. Unfortunately, all four dates involve long time spans at either the single sigma or double sigma error ranges. If, for example, we use only the statistically more likely ranges—those with the largest relative areas—sample RIDDL 569 yielded a two-sigma range of cal AD 852 to 1278 (426 years) and a one sigma range of cal AD 972 to 1219 (247 years). Given the likelihood that the occupation of the site was relatively brief, on the order of a few years , these date ranges are too broad for determining the age of LA 51333.

Archeomagnetic Dating

During the original research, Cathy Duncan of the University of Toronto attempted to obtain archeomagnetic samples from CL-8. No date was forthcoming.

Pottery Seriation

Two pottery categories characterize Corona phase assemblages (Table 1). The dominant category is plain brown, which at this time period usually means Jornada Brown. Chupadero Black-on-white is also present in lesser quantities (see Kelley 1984). Any number of other types—some probably made locally, others clearly imported from some distance away—may be present in very small numbers.

Table 2. Radiocarbon Dates.
("ra" = relative area)

RIDDL-569 (Sample 3-11)	
Context	Extramural fill and living surface east of Features 5 and 7
Material	Carbonized *Phragmites* stem fragments
Radiocarbon age	960 ± 130 BP
One sigma range	cal. A.D. 972 to cal. A.D. 1219 (ra = 1.000000)
Time span for ra = 1.000000, 1 sigma	247 years
Two sigma ranges	cal. A.D. 777 to cal. A.D. 793 (ra = 0.011542) cal. A.D. 801 to cal. A.D. 848 (ra = 0.030933) cal. A.D. 852 to cal. A.D. 1278 (ra = 0.957525)
Time span for ra = 0.957525, 2 sigmas	426 years
RIDDL-566 (Sample 3-10)	
Context	Test 12S, Level 1, Feature 9
Material	Carbonized yucca pod
Radiocarbon age	1000 ± 140 BP
One sigma ranges	cal. A.D. 893 to cal. A.D. 932 (ra = 0.11323) cal. A.D. 937 to cal. A.D. 1186 (ra = 0.88677)
Time span for ra = 0.88677, 1 sigma	249 years
Two sigma ranges	cal. A.D. 719 to cal. A.D. 742 (ra = 0.014077) cal. A.D. 766 to cal. A.D. 1274 (ra = 0.985923)
Time span for ra = 0.985923, 2 sigmas	508 years
RIDDL-568 (Sample 3-8)	
Context	Test 11W, Level 2, Feature 5
Material	Carbonized *Phragmites* stem
Radiocarbon age	1040 ± 130 BP
One sigma ranges	cal. A.D. 781 to cal. A.D. 787 (ra = 0.014659) cal. A.D. 876 to cal. A.D. 1159 (ra = 0.985341)
Time span for ra = 0.985341, 1 sigma	283 years
Two sigma ranges	cal. A.D. 694 to cal. A.D. 746 (ra = 0.039503) cal. A.D. 764 to cal. A.D. 1225 (ra = 0.954103) cal. A.D. 1233 to cal. A.D. 1243 (ra = 0.006394)
Time span for ra = 0.954102, 2 sigmas	461 years
RIDDL-567 (Sample 3-2)	
Context	Test 5N, Level 7, Feature 2, extramural pit
Material	Carbonized bean
Radiocarbon age	1260 ± 100
One sigma ranges	cal. A.D. 667 to cal. A.D. 779 (ra = 0.612902) cal. A.D. 788 to cal. A.D. 873 (ra = 0.387098)
Time span for ra = 0.612902, 1 sigma	112 years
Two sigma range	cal. A.D. 615 to cal. A.D. 984 (ra = 1.000000)
Time span for ra = 1.000000, 2 sigmas	369 years

As can be seen in the far right column of Table 1, all of the types for which estimated dates of manufacture are available—whether made locally or somewhere else—were made over fairly long periods. Also, some types started and ended earlier than others. If instead we look at the overlaps in dates of manufacture, we see that those overlaps fall in the late A.D. 1000s to the first half of the 1100s. The pottery, then, suggests that the site was occupied around A.D. 1100 or a little later. This timing, plus the restricted number of pottery types and the type of housing (with perishable superstructures), support assignment of the site to the Corona phase.

SUMMARY AND DISCUSSION

The data from the excavations at J. Harkey Site No. 1 (LA 51333 or CL-8) are a very welcome addition to the prehistoric record for the northern Sierra Blanca area. Investigation of the site was part of the mid-1980s field work by the mostly Canadian-funded Capitan-North Archaeological Project directed by Jane H. Kelley (University of Calgary) and Joe D. Stewart (Lakehead University).

J. Harkey Site No. 1 is the most completely excavated Corona phase site to be reported. Importantly, a large extramural area was opened up, exposing outdoor features including fire pits, storage pits, and two series of postholes belonging to probable porches. The absence of interior hearths suggests a warm-season occupation, and the site presumably was a farmstead.

The structure appears to have been built during two episodes. In the first a single room was built. In the second, two rooms were added, leading to a three-room structure. The two construction events could have taken place during a single year, in two subsequent growing seasons, or at most a few years apart. Based on the number of potsherds found during excavation, I suspect that the site was used for about 10 years. Based on the pottery types represented by those sherds, the site was used between A.D. 1050 and 1150. Unfortunately, the four radiocarbon dates from the site are not precise enough to improve that estimate of the site's age.

The presence of a large pit underneath the added rooms may or may not signal the presence of an earlier occupation of the site. If an earlier pit house was present, my estimate for the age and length of occupation apply to the later occupation, namely, the one that made use of the three-room surface structure.

If the site represents a seasonal occupation, as seems likely, where did the occupants spend their winters? And during that part of the year, what kind of home did they inhabit? The answers to those questions will require additional research in this particular corner of New Mexico.

MAXWELL MUSEUM OF ANTHROPOLOGY

REFERENCES CITED

Beckett, Patrick H. (editor)
1991 *Mogollon V.* COAS Publishing and Research, Las Cruces.

Breternitz, David A.
1966 *An Appraisal of Tree-Ring Dated Pottery in the Southwest.* Anthropological Papers of the University of Arizona No. 10. University of Arizona Press, Tucson.

Dick-Peddie, William A.
1993 *New Mexico Vegetation, Past, Present, and Future.* University of New Mexico Press, Albuquerque.

Driver, Jonathan C.
1985 *Zooarchaeology of Six Prehistoric Sites in the Sierra Blanca Region, New Mexico.* Technical Report No. 17. Museum of Anthropology, University of Michigan, Ann Arbor.

Kelley, Jane H.
1966 *The Archaeology of the Sierra Blanca Region of Southwestern New Mexico.* Ph.D. dissertation, Harvard University.

1979 The Sierra Blanca Restudy Project. In *Jornada Mogollon Archaeology: Proceedings of the First Jornada Conference,* edited by Patrick H. Beckett and R. N. Wiseman, pp. 107–132. Cultural Resources Management Division, New Mexico State University, Las Cruces and Historic Preservation Bureau, N.M. Department of Finance and Administration, Santa Fe.

1984 *The Archaeology of the Sierra Blanca Region of Southeastern New Mexico.* Anthropological Papers No. 74. Museum of Anthropology, University of Michigan, Ann Arbor.

Kohler, Timothy A., and Eric Blinman
1987 Solving Mixture Problems: Analysis of Ceramic Materials for Dating and Demographic Reconstruction. *Journal of Anthropological Archaeology* 6:1–28.

Kuijt, Ian
1986 Archaeological Research at J. Harkey Site #1, (CL-8), New Mexico, 1986. Report on file in Folder 253 of Box 17, Archives of the Maxwell Museum of Anthropology, University of New Mexico, Albuquerque.

Lehmer, Donald J.
1948 *The Jornada Branch of the Mogollon.* Social Science Bulletin 17, University of Arizona, Tucson.

Stewart, Joe D., Jonathan C. Driver, and Jane H. Kelley

1991 The Capitan North Project: Chronology. In *Mogollon V*, edited by Patrick H. Beckett, pp. 177–190, COAS Publishing and Research, Las Cruces.

Stuiver, M., P. J. Reimer, and R. W. Reimer
2018 CALIB 6.0. Accessed at http://calib.org on December 10, 2018.

MAXWELL MUSEUM OF ANTHROPOLOGY