Prehistoric Pottery Recovered from Loma Alta, AZ BB:14:10(ASM): Feature Dating, Production Provenance, and Vessel Function WNPA Research Project #20-08 Ceramic Analysis of the Material Excavated in the 1970s at the Loma Alta Site, Saguaro National Park by James M. Heidke; Desert Archaeology. Inc.

This report is the result of the WNPA Research Project #20-08.



Archeological site AZ BB:14:10(ASM). Photograph of Unit (Compound) 1 with Room 1 at center of photograph. Scale is 1 meter.

Introduction

The objective of this project is to analyze the ceramic assemblage from the Loma Alta archeological site, a large prehistoric Classic Period Hohokam habitation site within Saguaro National Park. The site was excavated in the early 1970s by Jack Zahniser. Zahniser's crew excavated four complete rooms (two rooms from two separate compounds: Unit 1 and Unit 3, and a number of test units, most of which were excavated in a third compound, Unit 2. The site was excavated prior to the area becoming part of the National Park, the data was never reported on by the original researchers. The site consists of at least 27 houses and three distinct compounds. Many houses and compound walls are visible on the surface due to the use of upright stones for foundations. Zahniser's notes, maps, and artifacts from the Loma Alta excavation are housed at the Arizona State Museum.

Heidke produced an 87-page report: "Prehistoric Pottery Recovered from Loma Alta, AZ BB:14:10(ASM): Feature Dating, Production Provenance, and Vessel Function, Ceramic Analysis of the Material Excavated in the 1970s at the Loma Alta Site"; with figures and comprehensive data tables, which the Park has accepted.

Analysis of the Loma Alta ceramic collection focused on three issues: (1) typological feature dating; (2) ceramic production as reflected in sand temper provenance data; and (3) subsistence practices as reflected by vessel form and inferred function. Hiedke analyzed 6,071 sherds from the Arizona State Museum's research collection.

The ceramic analysis is only part of a larger Park effort at producing a comprehensive, professional, report on the Loma Alta excavations.

Summary

The Arizona State Museum's Research Collection of pottery recovered by Jack L. Zahniser during his 1970–1973 excavations at Loma Alta was loaned to Desert Archaeology to document typological, provenance, and functional characteristics of the material. The Loma Alta Research Collection contains 7,948 sherds. Most were recovered from one of three units. Those gathered from Unit 1 (Rooms 1, 3, and 5), Unit 3 (Rooms II, IV, and VII [outlying Room 26]), and outlying Room 6 (no Unit number) and Unit 2 test pits identified as "Structure 2" were documented. Altogether, those seven rooms and "structure" contain 5,324 sherds representing a minimum of 1,839 vessels. The remaining 2,624 sherds recovered from the site surface collection, during a testing phase, and Unit 2 test pits not identified as Structure 2 were not documented, although the entire Unit 2 collection was reviewed for the presence of pre-Classic pottery.

Most of the Loma Alta pottery dates to the early Classic period, Tanque Verde phase. However, portions of three pre-Classic, Sedentary period vessels—all bowls—were documented. An "Early, Middle, or Late Rincon red-on-brown" body sherd was recovered from Unit 1, Room 1. Three Middle Rincon Red-on-brown sherds belonging to one vessel were recovered from Unit 2, test pit 21N7W. A Late Rincon Red-on-brown rim sherd was recovered from Unit 1, Room 3. Evidence of a late Classic period, Tucson phase occupation at the site was not found. However, the ASM Catalog Collection may contain such evidence as Neff and others (2001:Table V.4) report the recovery of a late Classic period, Gila Polychrome sherd from the floor of Unit 1, Room 3.

Limited interaction with people living outside the Tucson Basin was documented in the Loma Alta collection by the presence of Sells Red, San Carlos Red-on-brown, San Carlos Plain, and red-slipped and corrugated Mogollon wares. Although no extrabasinal white ware was encountered, Neff and others (2001:Tables V.1–V.2) report three sherds. They too may be in the ASM Catalog Collection. Finding extrabasinal white ware at Loma Alta would not be unusual as three Cibola White Ware types— Snowflake Black-on-white, Tularosa Black-on-white, and Pinedale Black-on-white—have been recovered from Classic period deposits at other Tucson area sites. All three types were made during the Tanque Verde phase, although the manufacture of Pinedale Black-on-white continued on into the late Classic period.

Eight bowl and four jar vessel forms were identified in the collection. Binocular microscopic characterization of sand temper provenance indicates that approximately 59 percent of the plain, 48 percent of the brown corrugated, and 21 percent of the red-on-brown ware may have been made at, or near, Loma Alta using sands from the Rincon Petrofacies as temper. However, that assertion requires petrographic verification, as no confirmation of a Rincon Petrofacies provenance identification has taken place to date. Furthermore, direct evidence of production would be needed before inferring that manufacture actually occurred at the site.

Pottery produced using sands from four additional Tucson Basin petrofacies was documented. The closest portion of the Catalina Petrofacies lies approximately 13 km north-northwest of Loma Alta, and sherds of red-on-brown, brown corrugated, and plain ware vessels tempered with Catalina Petrofacies sand are present in the collection. The other three petrofacies are located across the basin from Loma Alta, west of the Santa Cruz River. Portions of red-on-brown and plain ware vessels tempered with Black Mountain Petrofacies sand and red-on-brown ware sherds tempered with Beehive Petrofacies and Twin Hills Petrofacies sands were documented.

Relationships between ceramic ware, production location, and vessel function are evident in the Loma Alta collection. Table 24 reports the relationship between temper source (local and nonlocal), ware (plain, red-on-brown, corrugated, and red-slipped), and vessel function (cooking, storage, and serving) in the small subset of the collection having pertinent data. Most plain ware is tempered with locally available Rincon Petrofacies sands and potters emphasized the manufacture of vessels well-suited to cooking and storage functions. Cook pots also comprise most nonlocal plain ware. Exchange relationships and consumer preference are reflected in the acquisition of red-on-brown ware vessels produced elsewhere—especially west of the Santa Cruz River—and red-slipped vessels from the Papaguería, all of which were well-suited to the task of serving food stuffs to large and small groups.

Table 11. Loma Alta, AZ BB:14:10(ASM), temporally diagnostic and extrabasinal ceramic types recovered from Unit 3 Rooms II and IV and Unit 1 Rooms 1 and 3 (percentage values based on minimum number of vessel counts).

Ceramic Ware and Type Product Rang		Unit 3	Unit 1
Tucson Basin Red-on-brown Ware			
Indeterminate red-on-brown	500-1450	20.8	23.8
Early, Middle, or Late Rincon red-on-brown	950-1150	0	0.1
Early, Middle, or Late Rincon, or Tanque Verde red-on-brown	950-1450	2.7	3.9
Middle or Late Rincon, or Tanque Verde red-on-brown	1000-1450	14.8	5.5
Late Rincon Red-on-brown	1100-1150	0	0.1
Late Rincon or Tanque Verde red-on-brown	1100-1450	4.0	1.7
Tanque Verde Red-on-brown	1150-1450	48.3	49.1
Tucson Basin Red Ware			
Unidentified red ware		0	0.1
Tucson Basin Brown Corrugated Ware			
All corrugated types		8.1	12.2
Extrabasinal Wares and/or Types			
Valshni or Sells Red	800-1400	1.3	2.0
Sells Red	900-1400	0	0.6
San Carlos Red-on-brown	1250-1450	0	0.2
San Carlos Plain		0	0.1
Mogollon red ware, undifferentiated		0	0.1
Mogollon corrugated ware, undifferentiated	800-1400	0	0.4
Mogollon plain ware, undifferentiated	900-1400	0	0.1
Sample Size		149	1,270

 Table 11 from report: Prehistoric Pottery Recovered from Loma Alta, AZ BB:14:10(ASM): Feature Dating, Production

 Provenance, and Vessel Function, Ceramic Analysis of the Material Excavated in the 1970s at the Loma Alta Site, Saguaro

 National Park by James M. Heidke

Table 24. Three-way classification of ceramic ware, vessel function, and temper
provenance. Data for six cases where temper provenance is indeterminate and one case
where function is unknown are not included.WareFunctionBillitoNonlocal Sources

Ware	Function	Rillito Petrofacies ^a	Nonlocal Sources		
			Catalina Petrofacies ^b	Western Basin ^c	Extrabasinal ^d
Plain	Cooking	11	7	1	0
	Storage	4	0	0	0
Red-on-brown	Large group serving	1	1	7	0
	Small group serving	1	1	2	0
	Storage	3	1	3	0
Corrugated	Storage	0	1	0	0
Red-slipped	Large group serving	0	0	0	2
	Small group serving	0	0	0	1

^a Rillito Petrofacies counts include generic granitic or metamorphic provenance cases.

^b Catalina Petrofacies counts include generic metamorphic provenance cases.

^c Western Basin counts include Black Mountain, Beehive, Twin Hills petrofacies and generic volcanic provenance cases.

^d Extrabasinal cases include red ware from the Papaguería.

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