DOLORES ARCHAEOLOGICAL PROGRAM

TECHNICAL REPORTS

Volume V, Chapter 7

Excavations at Casa Bodega Halmlet (Site 5MT2194), A Pueblo I Habitation Site

by Gary A. Brown

Prepared For

Cultural Resources Mitigation Program: Dolores Project

Bureau of Reclamation, Upper Colorado Region

Contract 8-07-40-S0562

Under The Supervision Of

David A. Breternitz, Senior Principal Investigator

Final Submission

24 May 1982

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
DAP-V(7)		

4. Title and Subtitle	5. Report Date
Dolores Archaeological Program Technical Reports: Excavations at Casa Bodega Hamlet (Site 5MT2194), a Pueblo I habitation site	May 1982 (Submitted)
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
Gary A. Brown	

9. Performing Organization Name and Address	10. Work Unit No.
University of Colorado - DAP Rural Route 1, 17219 CR 26 Dolores, Colorado 81323	11. Contract or Grant No. 8-07-40-S0562
	13. Type of Report and Period Covered Contractual FY 1979
12. Sponsoring Agency Name and Address U.S. Bureau of Reclamation P.O. Box 11568 Salt Lake City, Utah 84147	14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstract

Casa Bodega Hamlet (Site 5MT2194) is a Pueblo I habitation site excavated during the 1979 field season by the Dolores Archaeological Program (D.A.P.). The site is located in Montezuma County in southwestern Colorado. It was excavated as part of the D.A.P. sample of habitations from the West Sagehen Neighborhood, a dispersed Anasazi community in the Sagehen Flats Locality during the Sagehen Phase (A.D. 600-850, according D.A.P. systematics).

Excavations revealed a single household cluster consisting of a pithouse, three informal storage facilities, a peripheral work area, and a sheet trash area. Architecturally, the site is characteristic of the Sagehill Subphase (A.D. 600-760). The ceramic data, however, based on the occurrence of Moccasin Gray sherds, places the occupation of the hamlet beween A.D. 775 and 850. The small number of features and artifacts and the small size of the pithouse suggest that the site was occupied by a small group, perhaps a nuclear family, for no more than a single generation.

17. Key Words	18. Distribution Statement
Dolores Archaeological Program, SW Colorado, Anasazi, Archaeology, (Archaeological method)	

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
		96	

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

Casa Bodega Hamlet (Site 5MT2194) is a Pueblo I habitation site excavated during the 1979 field season by the Dolores Archaeological Program (D.A.P.). The site is located in Montezuma County in southwestern Colorado. It was excavated as part of the D.A.P. sample of habitations from the West Sagehen Neighborhood, a dispersed Anasazi community in the Sagehen Flats Locality during the Sagehen Phase (A.D. 600-850, according D.A.P. systematics).

Excavations revealed a single household cluster consisting of a pithouse, three informal storage facilities, a peripheral work area, and a sheet trash area. Architecturally, the site is characteristic of the Sagehill Subphase (A.D. 600-760). The ceramic data, however, based on the occurrence of Moccasin Gray sherds, places the occupation of the hamlet beween A.D. 775 and 850. The small number of features and artifacts and the small size of the pithouse suggest that the site was occupied by a small group, perhaps a nuclear family, for no more than a single generation.

INTRODUCTION

Casa Bodega Hamlet, Site 5MT2194, is a small, Pueblo I habitation site excavated by the Dolores Archaeological Program (D.A.P.) in 1979. The site was originally surveyed in 1972 and was described as a Basketmaker III-Pueblo I ceramic and lithic scatter with a probable pithouse (Breternitz and Martin [1]); it was excavated as a part of the sample of small habitations which composed a dispersed community, the West Sagehen Neighborhood, during the Sagehen Phase, or A.D. 700-850, according to D.A.P. temporal systematics (Kane [2]).

Excavation at Casa Bodega extended from 31 July 1979 to 24 September 1979. A total of 1654 person hours were expended in excavations at the site: Youth Conservation Corps (Y.C.C.) accounted for 122 person hours, volunteer labor contriouted 80 person hours, and Colorado University crew members accounted for the remaining 1542 hours.

Location

Casa Bodega is located in southwestern Colorado, 8 km northwest of the town of Dolores, in Montezuma County. This places the site, according to D.A.P. systematics, in the Sagehen Flats Locality, Escalante Sector, Yellowjacket District, in the Mesa Verde Region of the San Juan Culture Area (Kane [3]).

The site is situated in the Northwest Quarter of the Northeast Quarter, Sec 35, T38N, R16W, on the Trimble Point Quadrangle, Colorado, U.S.G.S. 7.5 Minute Topographic Map, 1965. It is located at 13,960 mE, 54,580 mN, zone 12, on the Universal Transverse Mercator grid system. Site 5MT2194 is situated at an elevation of 2117.25 m above sea level, as indicated on Figure 7.1.

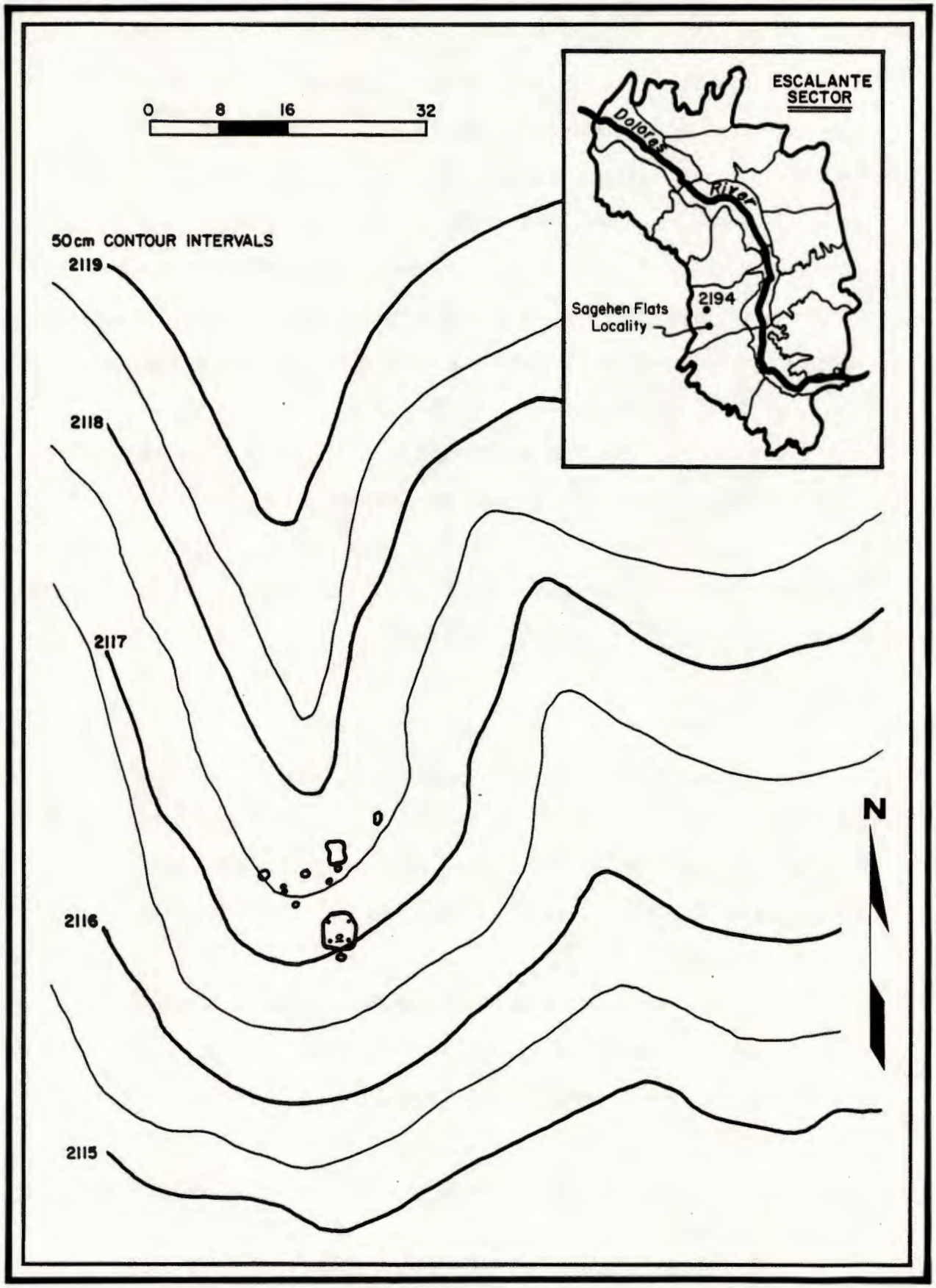

Figure 7.1 Topographic view of Casa Bodega Hamlet.

Acknowledgments

The excavation crew at Casa Bodega Hamlet consisted of R. Wilshusen (site assistant), M. Girton, K. Vincent, M. Cavanaugh, T. Hovezak, D. Caulfield, J. Firor, and G. Brown (site manager). Y.C.C. enrollees included R. Sharpe, T. Watters, S. Case, and D. Ballode. A special thanks is given to D. Brown for his volunteer work at Casa Bodega. The section of this report entitled "Geology" was prepared by Richard Glaser. D.A.P. Senior Staff review of this site report was by Timothy A. Kohler.

ENVIRONMENTAL SETTING

Geology

Site 5MT2194 is perched on a small hillock on the southern toe of a south-facing dip slope. The area contains well-developed soils of the Witt Series (these may include Witt, Granath, Sharps, or Pulpit soils). The soil is developed in loess; it is fairly thick at the north end of the site and thinner toward the south. A backhoe trench excavated along a north-south axis revealed that the Witt Series was underlain by Dakota Sandstone. Weathered Dakota Sandstone residuum acts as the C Horizon for the soils above. The contact between the loess and the Dakota Sandstone represents a topographic surface from before the loess was deposited. This surface is very old (tens of thousands of years) and is not of archaeological significance. Further description of the geology and soils of the site vicinity can be found in Leonhardy [4, 5].

Burro Canyon and Morrison formations, located about 2 km east of the site, provide raw materials for lithic tool manufacture. The types of resources available include chert, chalcedony, and silicious sandstone/siltstone.

Flora

Casa Bodega is presently situated in an area dominated by big sagebrush (*Artemisia tridentata*), with grama grass (*Bouteloua* sp.), Indian paintbrush (*Castilleja chromosa*), yarrow (*Achillea millifolium* ssp. *landulosa*), sunflower (*Helianthus annuus*, *H. petiolaris*), Utah thistle (*Cirsium utahensis*), wild onion (*Allium acuminatum*), brittle cactus

(Opuntia fragilis), prickly pear (Opuntia sp.), fendlerbush (Fendlera rupicola), birdbeak (Cordylanthus sp.), broadleaf yucca (Yucca baccata), poison milkweed (Asclepias subverticillata), mariposa lily (Calochortus gunnisonii), and rabbitbrush (Chrysothamnus nauseosus). Refer to Bye [6] for detailed description of present-day flora in the Sagehen Flats Locality.

Fauna

Fauna recorded during field operations include cottontail rabbit (Sylvilagus sp.), mouse (Peromyscus sp.), jackrabbit (Lepus sp.), striped skunk (Mephitis mephitis), badger (Taxidea taxus), coyote (Canis latrans), black-tailed prairie dog (Cynomys ludovicianus), mule deer (Odocoileus nemionus), American elk (Cervus canadensis), and rattlesnake (Crotalus sp.). Emslie [7] provides additional discussion of fauna found today in the area of the site.

Avifauna observed in the study area during field operations include mourning dove (Zenaidura macroura), American kestrel (Falco sparverius), Steller's jay (Cyanocitta stelleri), common flicker (Colaptes auratus cafer), American magpie (Pica pica), great blue heron (Ardea herodias), turkey vulture (Cathartes aura), Cooper's hawk (Accipiter cooperii), western meadowlark (Sturnella neglecta), mountain bluebird (Sialia currucoides), common crow (Corvus brachyrhynchos), raven (Corvus corax), ring-neck pheasant (Phasianus colchicus torguatos), bald eagle (Haliaeetus leucocephalus), and golden eagle (Aquila chrysaetos).

Historical Land Use

Historically, areas within the Sagehen Flats Locality have been disturbed by farming and grazing. Plow marks observed during excavation indicate that this site was plowed at one time.

SOCIAL SETTING

Casa Bodega Hamlet is interpreted as a small unit hamlet occupied for a brief period during the Dos Casas Subphase (A.D. 760-850) of the Sagehen Phase. As such, it was part of the West Sagehen Neighborhood, a dispersed community which existed in the Sagehen Flats Locality during the Sagehen Phase (Kane [2]).

According to Greenwald [8], there are 16 other habitation sites within 1 km of Site 5MT2194 which are known from excavation or survey to be representative of the Sagehen Phase. These sites are shown on Figure 7.2. Since Casa Bodega Hamlet was occupied during a brief period during the Sagehen Phase, however, most of these sites would not have been occupied at exactly the same time. Pithouse 2 at Dos Casas Hamlet (Site 5MT2193), to the east of Casa Bodega, is likely to have been occupied contemporaneously with Casa Bodega Hamlet.

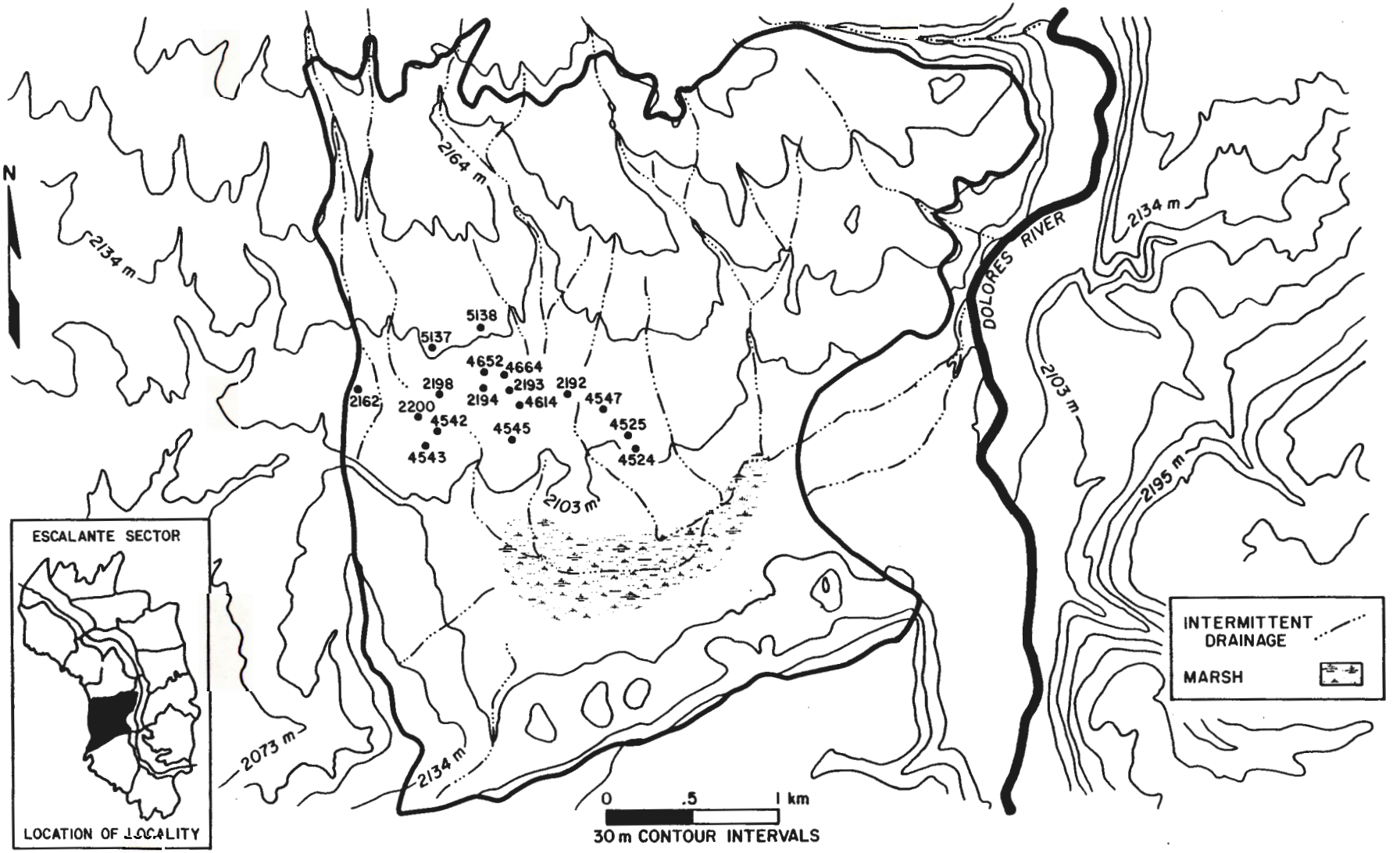

Figure 7.2 Locations of sites contemporaneous with Casa Bodega Hamlet.

SURFACE EVIDENCE

Magnetometer Survey

Two blocks (each 20 by 20 m) were surveyed for magnetometer studies at Casa Bodega during the 1978 field season, as illustrated on the site sampling plan, Figure 7.3. Six anomalies indicating possible cultural features were recommended for investigation. Fifteen 2 by 2 m units were excavated to test the anomalies. Anomaly 1 had the strongest potential for archaeological significance and upon investigation proved to be a pitstructure, Pithouse 1. The remaining five anomalies, culturally sterile, apparently reflected geologic phenomena. All of the anomalies were located near the central north-south axis of the site. After surface collection and probability sampling were completed, a grader was used to remove the plow zone; no other architectural remains were found associated with the anomalies. Further information concerning the magnetic survey conducted at Site 5MT2194 is present in the 1978 magnetometer report (Huggins and Weymouth [9]).

Surface Collection

Vegetation was cleared mechanically from the entire site prior to any archaeological reconnaissance. Clearing the site in this manner involved minimal surface disturbance and allowed a 4 by 4 m grid to be set up quickly and accurately. Figures 7.4 and 7.5 show Casa Bodega before excavation and after the majority of excavation was completed, respectively.

All ceramics, flaked lithics, and nonflaked lithics were collected from the surface of each 4 by 4 m unit. Figures 7.6, 7.7, and 7.8

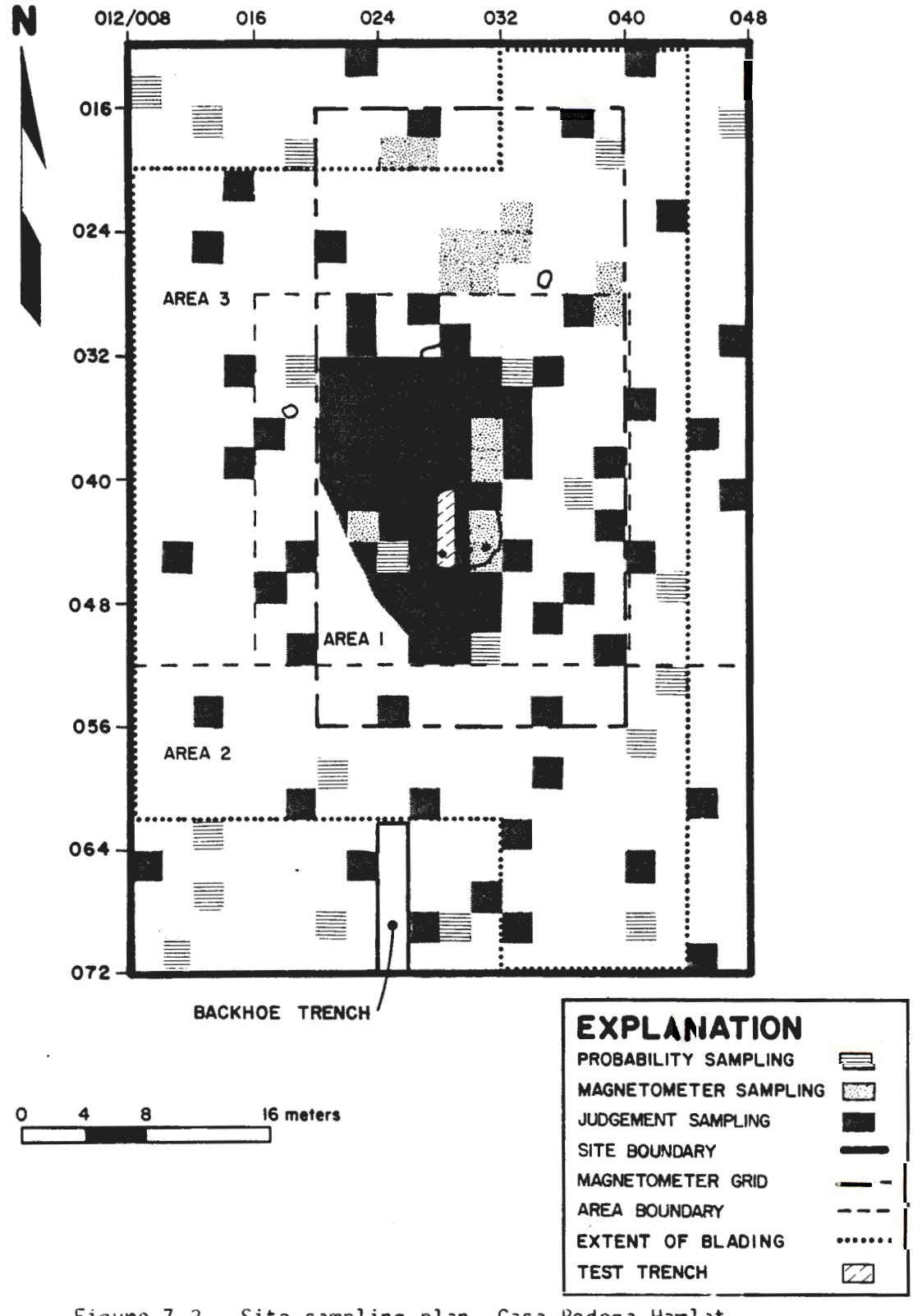

Figure 7.3 Site sampling plan, Casa Bodega Hamlet.

Figure 7.4 Initial site photograph of Casa Bodega Hamlet, after removal of brush (D.A.P. 020705).

Figure 7.5 Photograph of Casa Bodega Hamlet after majority of excavation was completed (D.A.P. 002406).

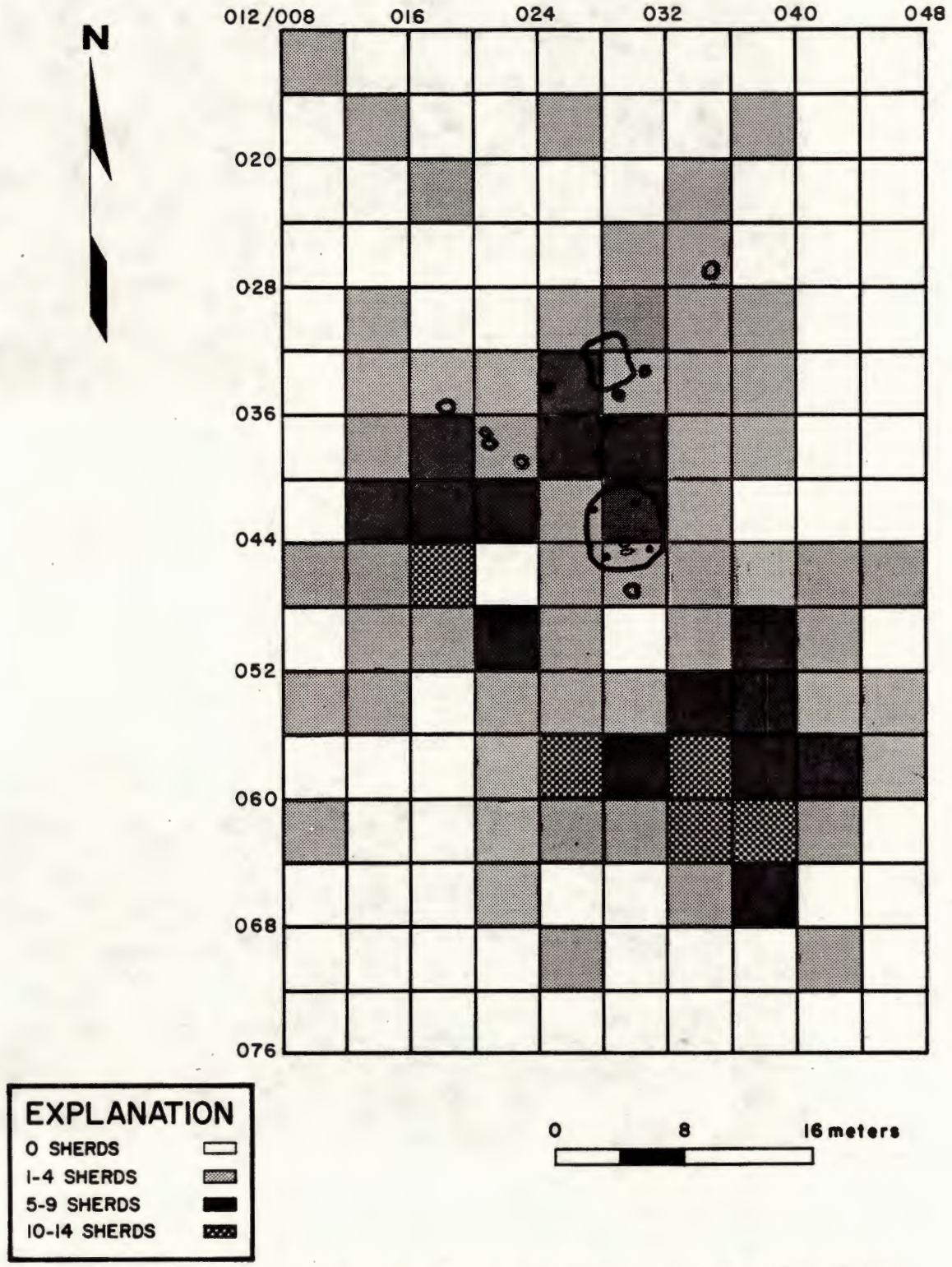

Figure 7.6 Surface distribution of ceramics, Casa Bodega Hamlet.

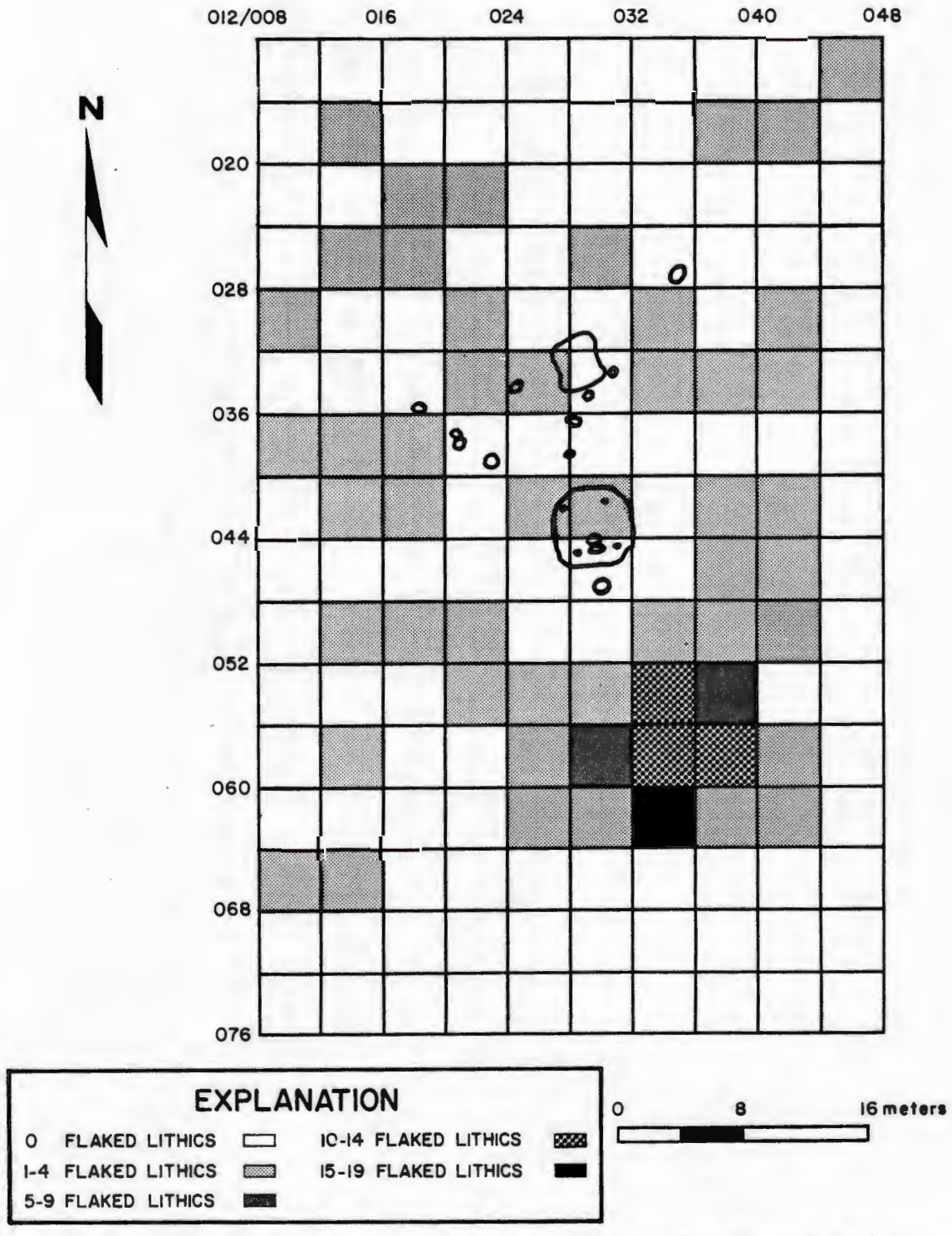

Figure 7.7 Surface distribution of flaked lithics, Casa Bodega Hamlet.

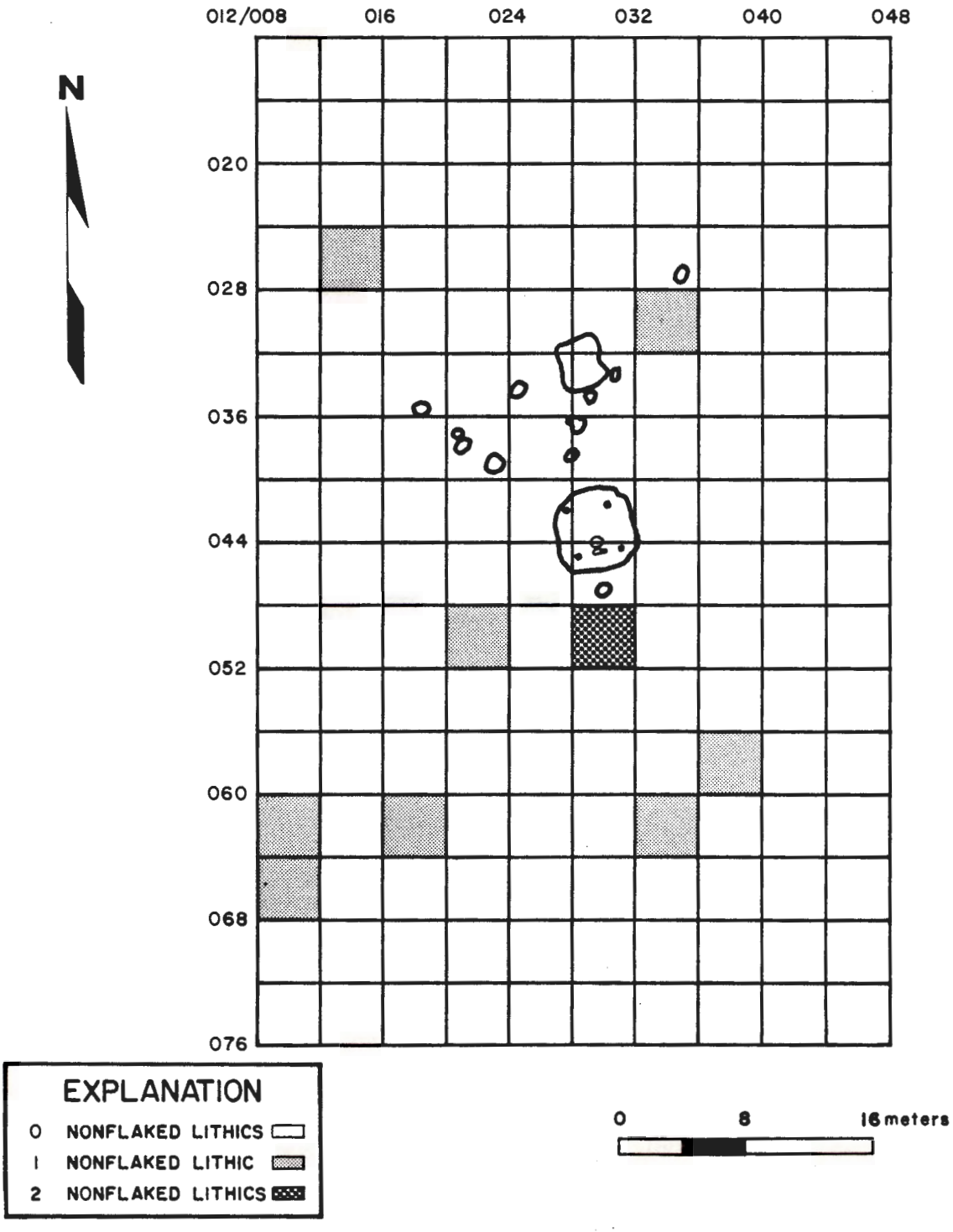

Figure 7.8 Surface distribution of nonflaked lithics, Casa Bodega Hamlet.

illustrate the distributions of surface artifacts, revealing that the majority of the material was found in the southeastern portion of the site. This artifact concentration probably represents the main trash disposal area of the prehistoric inhabitants. Several sites in the D.A.P. area have similar concentrations of sheet trash to the south and southeast of the main habitational area (e.g., Site 5MT2193, Brisbin [10], Site 5MT2198, Hewitt [11]). Artifact density throughout the rest of the site was minimal.

Pithouse 1 was evident on the surface as a slight, circular depression with a low density of surface artifacts, typical indications for pitstructures in the D.A.P. area. The roomblock area was indicated on the surface by sandstone rubble and artifacts. Excavation revealed an irregular pattern of surface structures.

EXCAVATION PROCEDURES

Probability Sampling

Twenty 2 by 2 m units were excavated for the probability sample at Casa Bodega. All squares were chosen using a table of random numbers according to a simple cluster sampling strategy, and excavated to sterile soil with screening through one-quarter-inch mesh. Probability samples were used to project material populations. No architectural features were encountered in these units. Kohler [12] discusses the methodology upon which the probability sample is based and the means employed for estimation. The division of the site into areas shown in Figure 7.3 was disregarded for the selection of the sample, and the sampling proportion attained (based on surface area) was about 3.3 percent.

Excavation Methods

Casa Bodega was divided into three excavation areas based on surface artifact densities and obvious architectural features. Area 1 contained all architectural units, Area 2 contained the sheet trash to the south of the architectural units, and Area 3 incorporated the perimeters of the site to the north, east, and west of Area 1. These areas were sampled disproportionately: 100 percent of Area 1 was sampled; smaller portions of Area 2 (65.3 percent) and Area 3 (52.1 percent) were sampled to define outlying activity areas and sheet trash.

After the probability sampling was completed, investigations at Casa Bodega proceeded by excavating judgement squares (each 2 by 2 m) expected to yield architectural remains. After judgement sampling had been completed, a grader was used to remove the remaining plow zone and expose any

other cultural features in the central area of the site. Two surface rooms, Rooms 2 and 3, were located in this manner.

Along with the grader, a backhoe was used in the investigations at Casa Bodega. A backhoe trench was placed along the southern extreme of the site for a stratigraphic profile (Figure 7.3). In addition, the backhoe was used to remove sterile fill from the eastern half of Pithouse 1.

All features encountered during the testing of Casa Bodega were excavated using standard D.A.P. methods (Kane [13]). Each feature was exposed horizontally to define its limits and then divided into halves or quadrants to provide stratigraphic profiles. Bulk soil samples (Litzinger [14]) were taken from the fill, and vertical and horizontal profiles were drawn. Munsell color determinations were also taken for each feature.

Nine 2 by 2 m units were excavated to horizontally define the pitstructure. A north-south, 1 by 4 m trench (Trench 1) was then excavated into the pitstructure fill, in 20 cm arbitrary levels, to 20 cm above the floor. The last 20 cm of fill was left in the trench to protect the floor surface. The trench was then expanded to locate the walls. The fill was similar to the sterile soil of the surrounding area, and the walls could not be defined. It was necessary to excavate down to the floor so that the surface could be followed and the walls could be exposed. All artifacts on the surface were mapped, given point location (PL) designations, and collected.

Trench 2, to the east of and perpendicular to Trench 1, was excavated in the same manner as Trench 1 to determine the eastern wall of the structure. A backhoe was used to remove the fill on the north and south sides of Trench 2. Trench 3, also perpendicular to Trench 1, was excavated by trowel and shovel to locate the western limits of the structure.

ARCHITECTURAL REMAINS

Major Cultural Units

The major cultural units at Casa Bodega make up a single household cluster, as defined by D.A.P. terminology: a pithouse, three storage facilities, and associated features, as illustrated in Figure 7.9. Designated as Household Cluster 4 within the D.A.P. area, four use areas were assigned at Casa Bodega, based on preliminary functional interpretations: Use Area 1, economic storage; Use Area 2, food processing; Use Area 3, domestic; and Use Area 4, economic discard. Each use area is considered to have been the focus of multiple activities of the household group (Kane [2]).

Use Areas 1 and 3 contain the major architectural units within the site (Rooms 1, 2, 3, and Pithouse 1); features and sheet trash are found in the remaining two use areas. Nine activity areas, each thought to have served a particular function, are contained within these four use areas.

Use Area 1

Use Area 1, containing Rooms 1, 2, and 3, is thought to have served as an economic storage area.

Room 1.

Dimensions:

Length:	
South wall:	2.10 m
West wall:	2.40 m
North wall:	2.20 m
East wall:	2.25 m
Total area:	5.30 m^2
Height:	
South wall:	0.09 m
West wall:	0.12 m

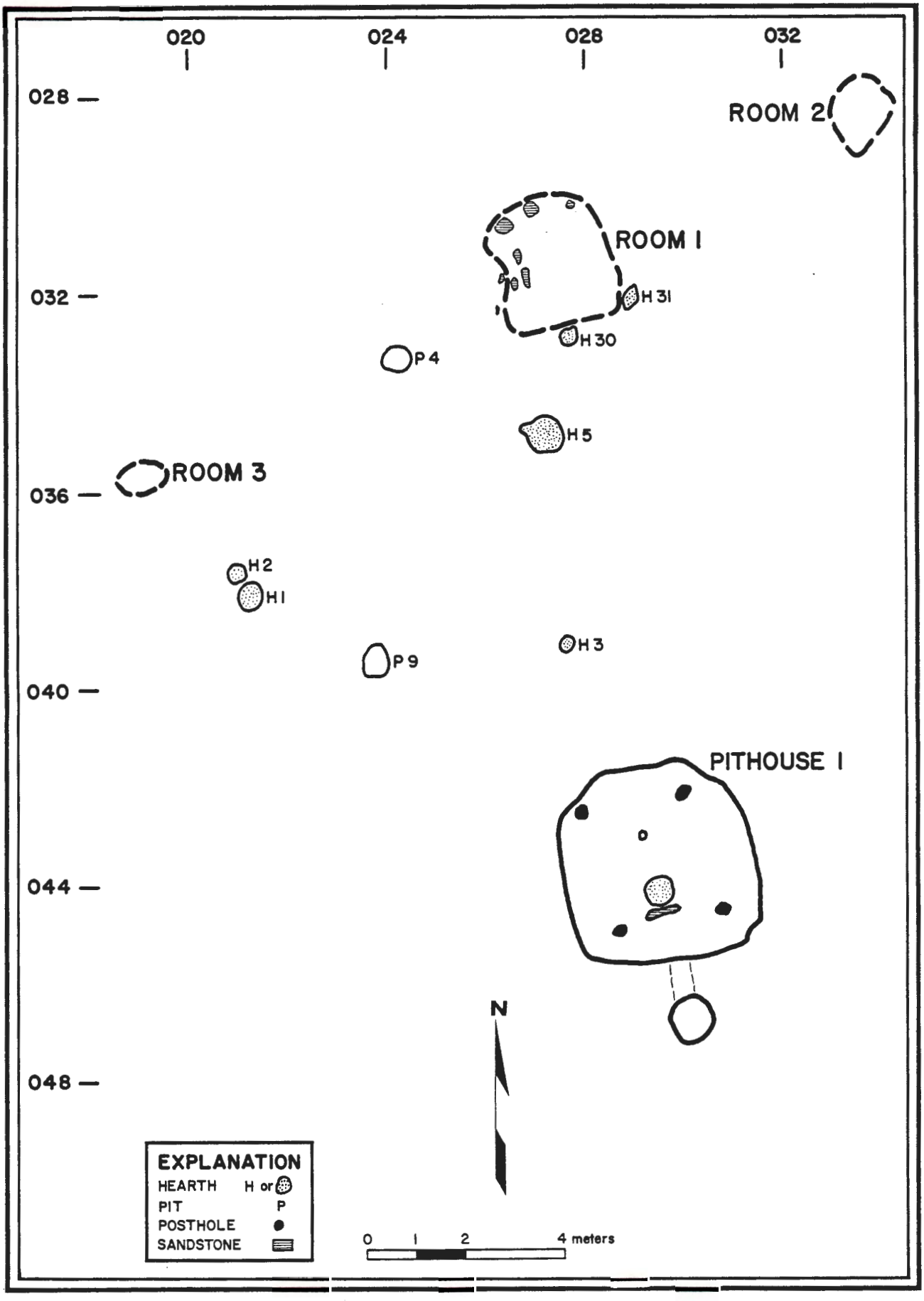

Figure 7.9 Spatial relationship of major cultural units, Casa Bodega Hamlet.

North wall:	0.13 m
East wall:	0.07 m

Of the three rooms, Room 1 is the largest and was indicated on the surface by the largest rubble concentration. It is relatively square in shape and is oriented on a northwest-southeast axis. The lack of cultural material recovered from the surface and lack of internal features suggests use for storage; it was perhaps the major storage facility at the site. Artifacts found in the fill were the result of post-abandonment processes.

Room 2.

Dimensions:

Length:	1.60 m
Width:	1.25 m
Depth:	0.13 m
Total area:	2.00 m^2

Room 2 is an oval-shaped, medium-sized room in the northeastern portion of Use Area 1. In profile, the room is basin shaped and the fill was a dark clay loam with some cultural material; there was no evidence of a superstructure, but a jacal superstructure might have protected the stored goods. No postholes were uncovered; it is possible that plowing or other disturbances might have destroyed them. The lack of artifactual materials and features suggests that Room 2 was a storage unit.

Room 3.

Dimensions:

Length:	0.95 m
Width:	0.60 m
Depth:	0.09 m
Total area:	0.57 m^2

Room 3 is located to the west of Room 1. Room 3 is smaller than Room 2, but is similar in all other aspects and was probably a storage facility. No features were associated with this room.

Isolated features. Three isolated features were recorded within Use Area 1: Features 30 and 31 are both hearths and Feature 4 is a pit without evidence of burning.

Hearth (Feature 30):

Dimensions:

Length:	20 cm
Width:	20 cm
Depth:	11 cm

Feature 30, a hearth, is located 10 cm to the south of Room 1. It is round in plan and basin shaped in profile. The hearth was dug into the sterile clay loam that underlies the entire site. Post-abandonment fill lacking cultural material was contained in the basin; no botanical samples were collected. There was no oxidation found on the walls of the hearth, but the presence of charcoal at the base indicates its use for heating or food processing.

Hearth (Feature 31):

Dimensions:

Length:	85 cm
Width:	75 cm
Depth:	7 cm

Feature 31, a hearth, is located directly to the southeast of Room 1. It is a medium-sized, oval-shaped pit with an uneven, very shallow profile. The fill was a dark clay loam with texture varying from loose to very compact. Lithic and ceramic materials were intermixed throughout the fill, though the assemblage was small. Botanical samples were not taken from the fill, as the feature was poorly preserved. No oxidation was evident, but the similarity to Feature 31 suggests that Feature 30 was probably used for the same purposes--heating or food processing.

Pit (Feature 4):

Dimensions:

Length:	55 cm
Width:	45 cm
Depth:	10 cm

This pit, Feature 4, is oval in plan and basin shaped in profile. Fill within the feature was a dark clayey loam which included sandstone fragments and a single sherd. No oxidation was present within the feature, nor was there any evidence of burning on the sandstone fragments. This feature is inferred to have been a storage facility (i.e., cist); the sandstone remnants might have served as the lining and/or cist cover.

Activity areas. Three activity areas, all storage areas, were designated in Use Area 1. These are Room 1 (Activity Area 5), Room 2 (Activity Area 6), and Room 3 (Activity Area 7).

Use Area 2

Use Area 2, located between Use Areas 1 and 3, is interpreted as a food-processing area due to its location and associated features. It is centrally located between what are considered the storage facilities (Use Area 1) and the domestic unit (Use Area 3). Features include four hearths and one pit, all associated with food-processing activities.

Very few artifacts were associated with the surface in Use Area 2, possibly due to post-occupation activity (i.e., plowing and erosion). A single food processing activity area (Activity Area 4) was delineated in Use Area 2. Activity Area 4 is small and includes Features 1 and 2.

Hearth (Feature 1).

Dimensions:

Length:	56 cm
Width:	56 cm
Depth:	10 cm

Feature 1 is a medium-sized hearth, round in plan and basin shaped in profile. The fill consisted of charcoal and ash mixed with post-abandonment sediments; only one sherd was recovered in the excavation of Feature 1. It is speculated that this hearth served as a food-processing unit associated with Feature 2.

Hearth (Feature 2).

Dimensions:

Length:	35 cm
Width:	31 cm
Depth:	9 cm

Feature 2 is located immediately northwest of Feature 1. It is medium in size, round in plan, and basin shaped in profile. Fill was similar to that in Feature 1, although Feature 2 seemed to have more charcoal and ash. There was only one sherd recovered. It is speculated that Features 1 and 2 were used in conjunction with one another as a two-stage processing unit, e.g., as cooking pit and warming pit; cooking pit and drying pit; or pit to fire the coals and cooking pit. Corn cob fragments were recovered from Feature 2, perhaps indicating that this feature served as a cooking pit.

Three other features--two hearths and a pit--are located within Use Area 2; they do not appear to be associated with the features in Activity Area 4 (Table 7.1).

Table 7.1 Isolated Features in Use Area 2, Casa Bodega Hamlet

Feature Number	Feature Type	Shape		Dimensions (cm)		
		Plan	Profile	Length	Width	Depth
3	Hearth	round	basin	25	17	2
5	Hearth	round	basin	64	68	12
9	Pit	round	basin	80	57	24

Use Area 3

Use Area 3 consists of Pithouse 1 and is defined as a domestic area. Several activity areas have been designated within the structure and are discussed in the following section.

Pithouse 1.

Dimensions:

Length:	
South wall:	3.30 m
West wall:	3.40 m
North wall:	3.30 m
East wall:	3.40 m
Total area:	11.20 m^2
Height:	
South wall:	1.00 m
West wall:	1.05 m
North wall:	1.15 m
East wall:	1.15 m

Pithouse 1 (Figures 7.10 and 7.11) is designated as Use Area 3. Although generally consistent with architectural styles associated with the Sagehill Subphase, A.D. 600-760, (Hewitt [15]), it has some unique characteristics. Most standard features are present, e.g., deflector, sipapu, hearth, ventilator, pot rests, and four postholes, but the pithouse lacks wingwalls, which are generally typical of this architectural style. There was also a raised bin found in the southeastern corner of the structure. Bins of this sort are not typical, but based on the construction it is believed to have been used for storage. No construction beams were recovered from the pithouse. While these beams may have rotted after abandonment of the pithouse, the lack of any remains such as wood fragments or stains suggests that they may have been removed after the pithouse was abandoned. The floor of the structure was covered with

Figure 7.10 Plan view of Pithouse 1, Casa Bodega Hamlet. AA' corresponds to AA' in Figure 7.13. BB' corresponds to BB' in Figure 7.14.

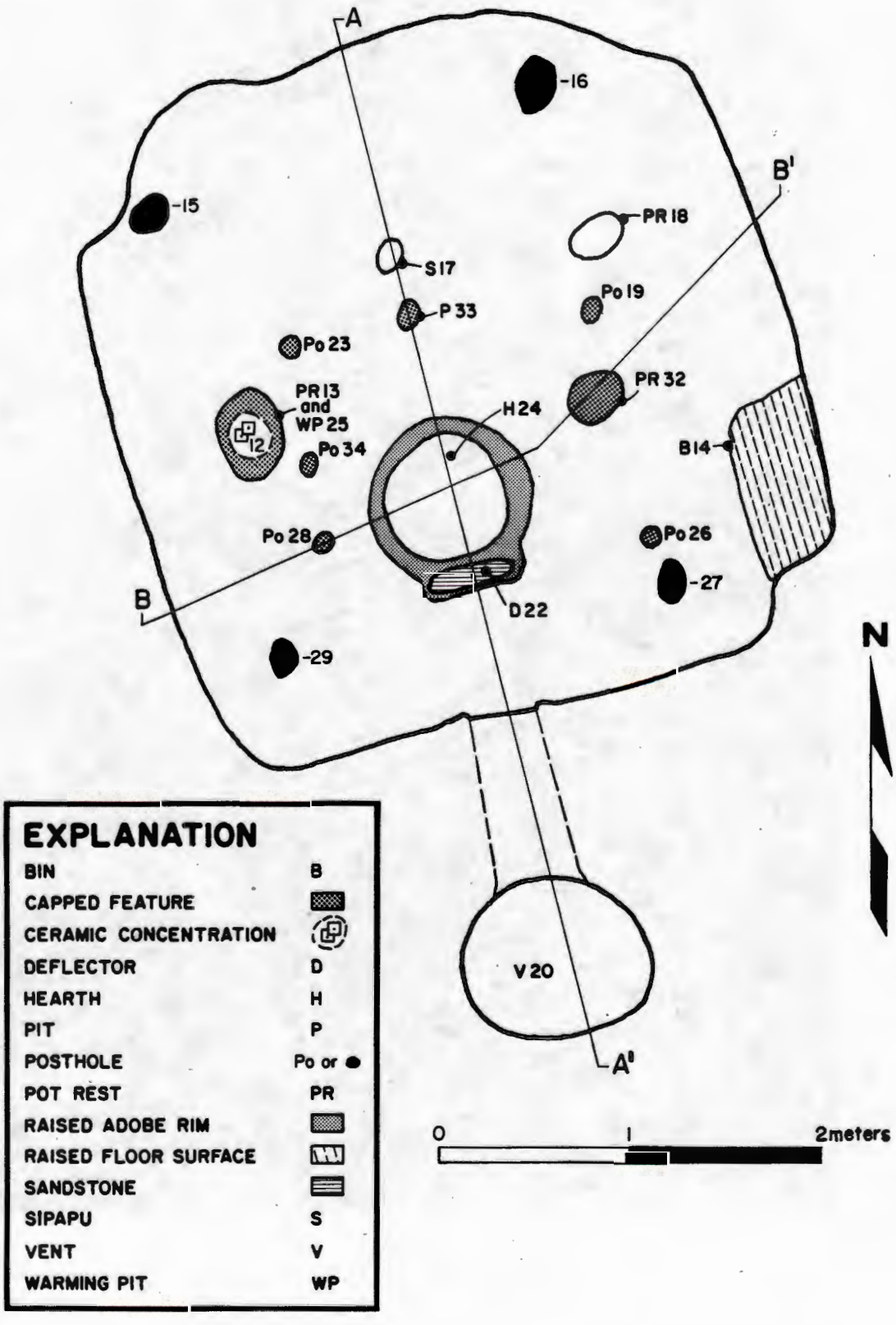

Figure 7.11 Pithouse 1, view to the south (D.A.P. 027129).

cultural material, including numerous sherds representing several partially reconstructable vessels.

The fill of Pithouse 1 (as illustrated in Figure 7.12) consisted of post-abandonment deposits. Two strata were defined (Strata 1 and 2). They were homogenous except for a slight difference in texture; both were a light tan, clayey loam lacking cultural material.

The pithouse walls were difficult to define. It is possible that the walls had been plastered but had eroded since the structure was abandoned. The floor surface of the structure had been prepared by adding a green colored sand to the sterile soil and making a compact surface. Figures 7.13 and 7.14 illustrate the north-south and east-west architectural profiles of Pithouse 1.

Features: Twenty-one features were found within Pithouse 1. Table 7.3 lists the dimensions of these features, which are described below.

Hearth (Feature 24): Feature 24 is a well-preserved hearth that was constructed by excavating a round, basin-shaped pit into sterile soil. An adobe surface lined the excavated pit. This feature was apparently remodeled at some point during the occupation of the site, as indicated by the placement of a raised adobe collar around the hearth and the incorporation of the base of the deflector into the hearth. Five strata were recognized in the hearth fill: the lowest stratum was sand, which may have served as an insulator; the next two strata contained burned debris, ash, and charcoal; the upper two strata were post-occupational deposits of sand and clayey loam.

Deflector (Feature 22): Feature 22 is a stationary deflector that was constructed in association with the central hearth. The adobe collar that surrounded the hearth incorporated the deflector as well and

Figure 7.12 Stratigraphic profile of Pithouse 1, Casa Bodega Hamlet.

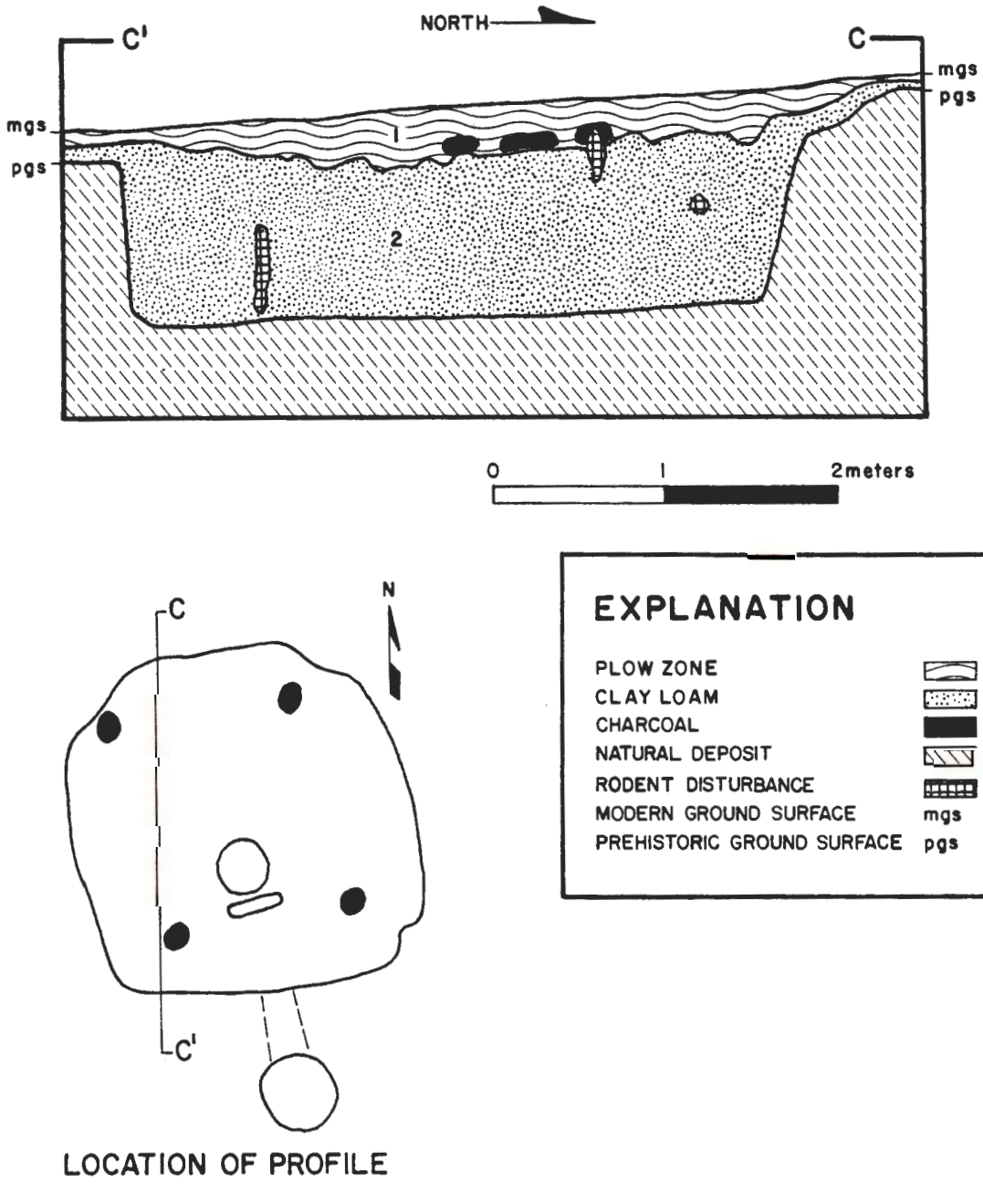

Figure 7.13 Architectural profile (north-south), Pithouse 1, Casa Bodega Hamlet. AA' corresponds to AA' in Figure 7.10.

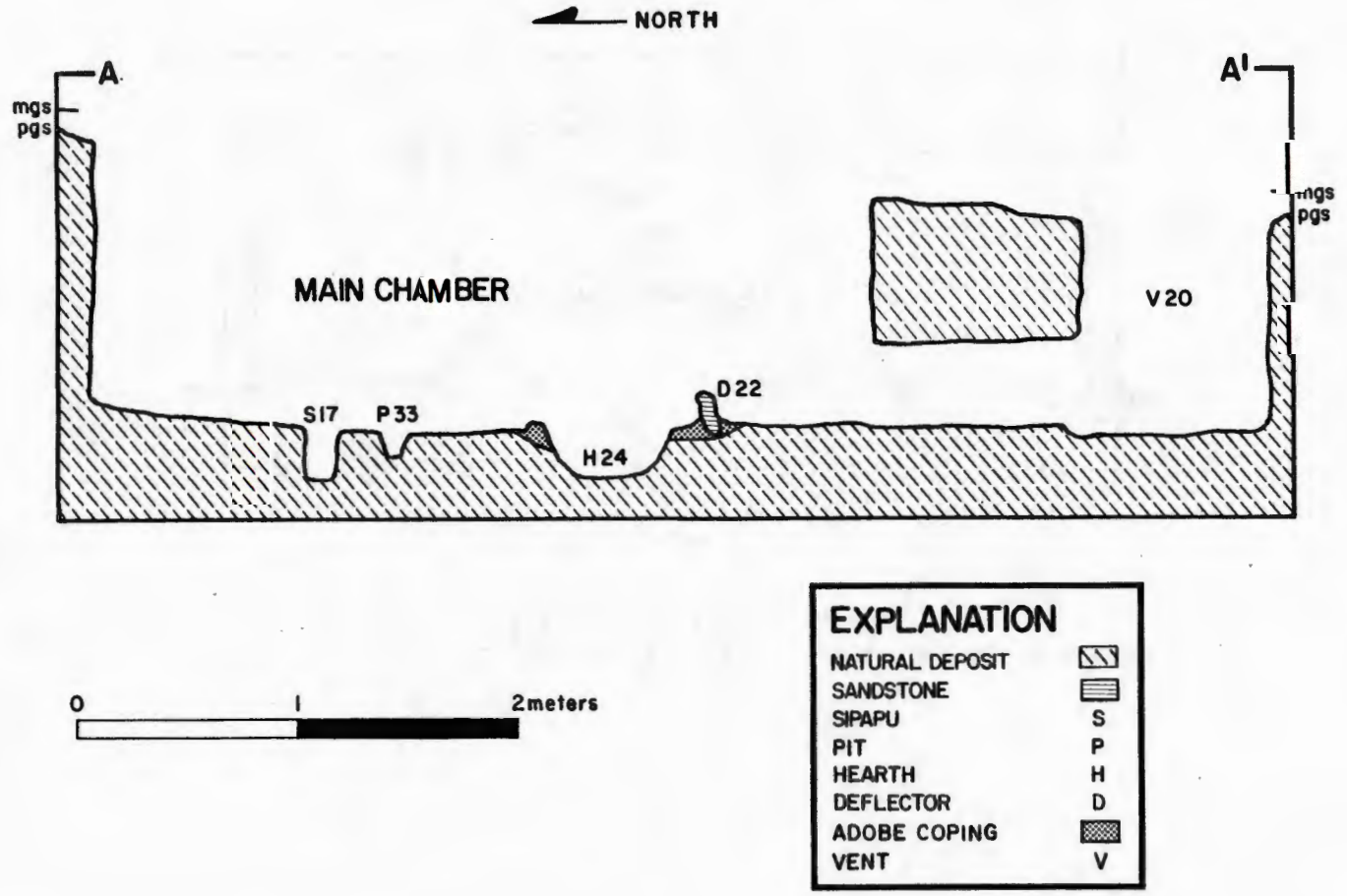

Figure 7.14 Architectural profile (east-west), Pithouse 1, Casa Bodega Hamlet. BB' corresponds to BB' in Figure 7.10.

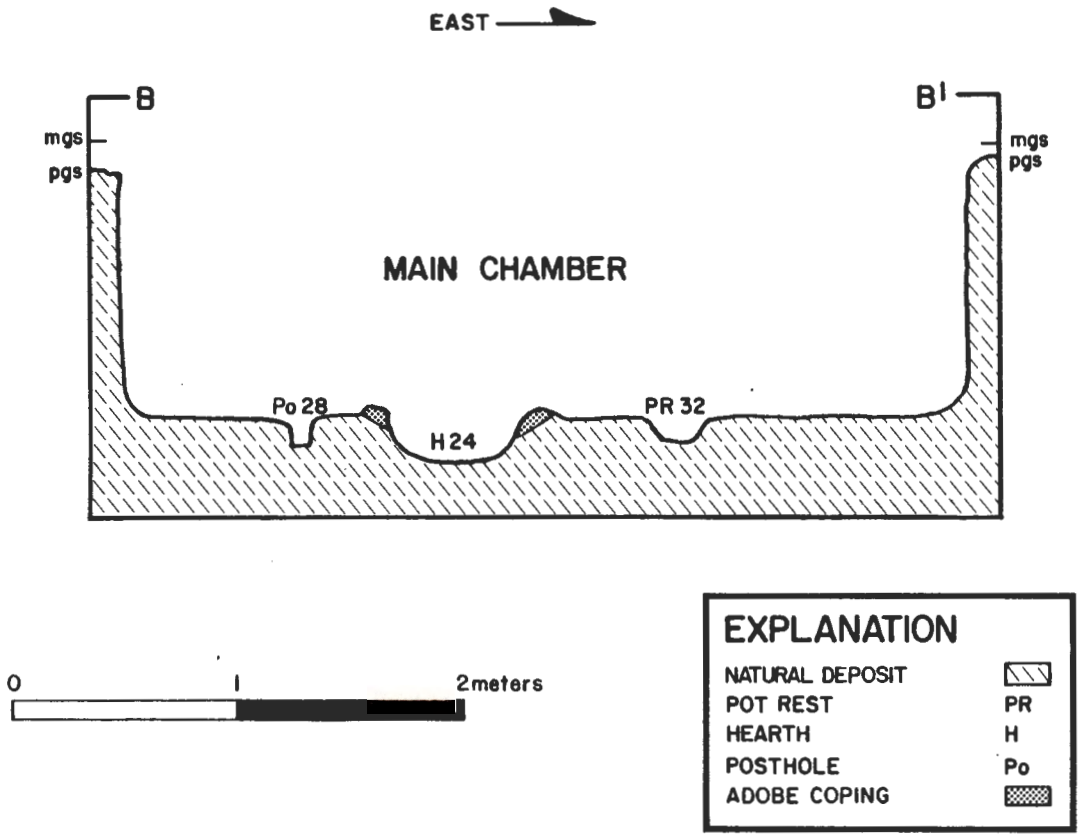

Table 7.2 Feature Summary of Pithouse 1, Casa Bodega Hamlet

Feature Number	Feature Type	Shape		Dimensions (cm)		
		Plan	Profile	Length	Width	Depth
12	sherd concentration	N/A	N/A	37.0	28.0	--
13	pot rest	oval	basin	44.0	32.5	1.0
14	bin	rectangular	rectangular	80.0	40.0	--
15	posthole	round	cylindrical	20.0	17.0	24.0
16	posthole	round	cylindrical	25.0	20.0	26.0
17	sipapu	round	cylindrical	10.0	9.0	25.0
18	pot rest	oval	basin	26.0	20.0	8.0
19	posthole	round	cylindrical	8.0	9.0	15.0
20	ventilator	complex	complex	95.0	32.0	37.0
21	sherd concentration	N/A	N/A	30.0	25.0	--
22	deflector	rectangular	cylindrical	43.0	6.0	18.0
23	posthole	round	cylindrical	8.0	9.0	15.0
24	hearth	round	basin	93.0	85.0	20.0
25	warming pit	oval	basin	44.0	32.5	9.0
26	posthole	round	cylindrical	10.0	10.0	15.0
27	posthole	round	cylindrical	23.0	20.0	34.0
28	posthole	round	cylindrical	7.0	8.0	13.0
29	posthole	round	cylindrical	20.0	16.0	40.0
32	pot rest	round	basin	25.0	22.0	10.0
33	pit	round	cylindrical	13.0	12.0	14.0
34	posthole	round	cylindrical	9.0	8.0	16.0

extended approximately half way up the deflector (20 cm) from the surface of the pithouse. The deflector prevented the fresh air in the ventilator shaft from blowing directly across the hearth and allowed the air to circulate throughout the structure.

Ventilator (Feature 20): The ventilator system was filled with post-occupational, clayey-loam deposit with minimal artifactual material. It had been dug into sterile soil, with no apparent modifications, and was used to bring fresh air into the pithouse.

Bin (Feature 14): Feature 14 is a raised storage bin in the southeastern corner of the pithouse. The bin surface was 10 cm higher than the pithouse floor; the fill in the bin contained post-occupational deposits. Horizontal shaped sandstone slabs were found around the bin. It is speculated that the slabs had originally been set vertically to form the northern and western walls of the bin. Botanical samples were taken from the feature and the surrounding area. It is speculated that the bin was used for storage.

Sipapu (Feature 17): Feature 17 is considered a sipapu based on its location within the pithouse and on a construction style similar to sipapus in other structures. Sipapus are generally believed to be ceremonial in function and apparently great care was taken in their construction. In this case, grooves from a digging stick were found along the walls, and an adobe lip gently sloped into the feature. The feature was partially filled with a medium-grained, brown sand and covered with post-occupational clay loam.

Pot rest (Feature 13): Feature 13 appears to be a pot rest that was constructed by remodeling a warming pit (Feature 25). The warming pit was filled with sterile sand and capped with adobe. The pot

rest is oval in shape and has a slightly basin-shaped profile. Its proximity to the central hearth and the ceramic concentration recovered in direction association with the feature suggest its use as a pot rest. Bullard [16] has described similar features.

Warming pit (Feature 25): Feature 25 is an oval, basin-shaped, adobe-lined pit found directly below Feature 13. Oxidation was present at the base of the feature, indicating its use as a warming pit.

Pit (Feature 33): Feature 33 is a slight, circular depression located north of the hearth. Due to its location and shape, Feature 33 is thought to be a ladder rest. Feature 33 was filled with clean, light brown sand and reddish-brown clay loam and then capped with adobe to where it was level with the floor. In profile, the feature was found to have a funnel-like shape.

Other features: Features 15, 16, 27, and 29 are inferred to be postholes for the main support posts, based on their size and location. They are all very similar in shape and profile; dimensions for these features are presented in Table 7.2. No post remnants were found; the fill of each of these features was consistent with the post-abandonment deposit for the area, a light-brown, clayey loam.

Feature 32 was probably initially used as a pot rest, but it had been filled with clean brown sand and plastered over with adobe. This small pit had been dug into the floor of the pithouse and then filled and plastered to the surface level. Feature 18 is similar to Feature 32 but had not been filled with clean sand and capped with adobe.

The five remaining features in Pithouse 1 are apparently postholes that were filled with sterile brown sand and capped with adobe at floor

evel. The features are Features 19, 23, 26, 28, and 34; no function for these features has been determined.

Floor artifacts: The floor surface of Pithouse 1 contained a high density of artifactual material; these include ceramic, lithic, and nonhuman bone artifacts, as illustrated in Figure 7.15 and described in Table 7.3.

Activity areas: Three activity areas were designated in Use Area 3. Activity Area 1, the domestic food preparation area, is centrally located in Pithouse 1. Six features are included within this activity area: the central hearth (Feature 24), a warming pit (Feature 25), three pot rests (Features 13, 18, and 32), and the deflector (Feature 22). At abandonment, only four of these features were in use: the central hearth, two pot rests (Features 13 and 18), and the deflector. The warming pit (Feature 25) had been modified into a pot rest (Feature 13) which was in use at the time of abandonment. Feature 32, a pot rest, had been covered with plaster. The activity area has been defined based on the spatial relationship of the features and their presumed domestic function.

Activity Area 2 perhaps reflects ritual activities, based on the presence of Feature 17, a suspected sipapu. Feature 17 is considered a sipapu due to its alignment with the ventilator, deflector, and central hearth. The sipapu contained no cultural material generally inferred to be of ceremonial value.

Activity Area 3 is the storage bin (Feature 14) located in the southeastern corner of Pithouse 1. The southern and eastern walls of the bin were formed by the walls of the pithouse; horizontal sandstone slabs found to the north and west of the bin were probably once set vertically, enclosing the storage area. No organic materials were found in the fill

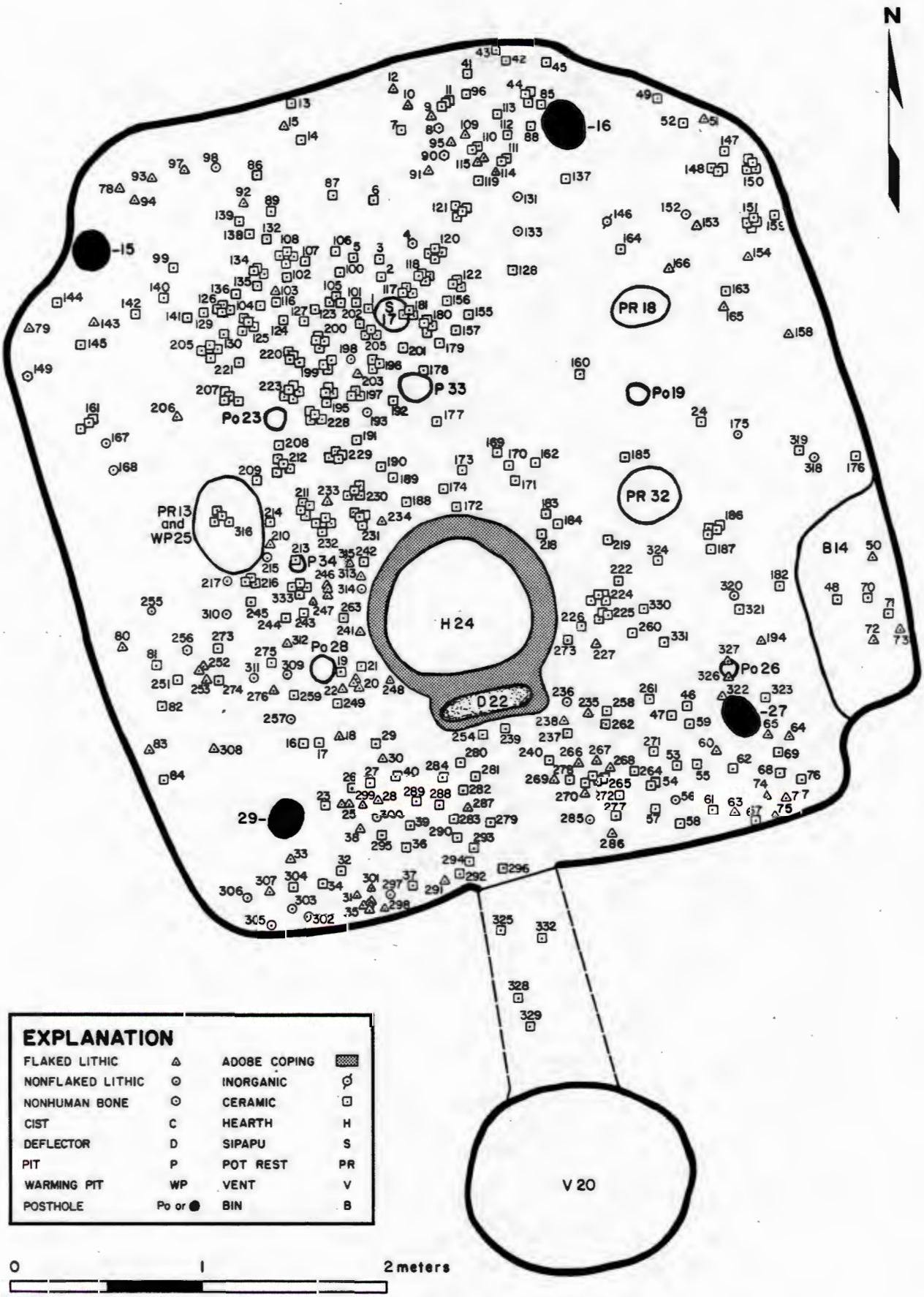

Figure 7.15 Artifact distribution map, Pithouse 1, Casa Bodega Hamlet. See Table 7.3 for numbered artifact locations.

Table 7.3 Point-Located Artifacts, Pithouse 1, Casa Bodega Hamlet (Page 1 of 8)

PL #*	Description
1	Ceramic, EP Gray jar sherds (12)
	Ceramic, Moccasin Gray jar sherds (2)
	Ceramic, Chapin Gray jar sherd
	Ceramic, EP White bowl sherd, RC No. 1
2	Ceramic, EP Gray jar sherds (11)
	Ceramic, Moccasin Gray jar sherd
3	Ceramic, Moccasin Gray jar sherd, RC No. 2
	Ceramic, EP Gray jar sherds (6), RC No. 3
4	Nonhuman bone, Odocoileus hemionus, awl
5	Ceramic, EP Gray jar sherds (10), RC No. 2
	Ceramic, EP White bowl sherd, RC No. 1
6	Ceramic, EP Red bowl sherd
7	Ceramic, EP Gray jar sherds (2), RC No. 3
8	Nonhuman bone, indeterminate
9	Flaked lithic, used core
10	Flaked lithic debitage
11	Ceramic, EP Gray jar sherd, RC No. 3
12	Flaked lithic debitage
13	Item misplaced
14	Ceramic, EP Gray jar sherd
15	Flaked lithic debitage
16	Ceramic, EP Gray jar sherd
17	Ceramic, EP Gray jar sherds (2)
18	Flaked lithic debitage (2)
19	Ceramic, EP Gray jar sherds (2)
20	Flaked lithic debitage
21	Ceramic, EP Gray jar sherd
22	Flaked lithic debitage (2)
23	Ceramic, EP Gray jar sherds (5), RC No. 3
24	Ceramic, EP Gray jar sherds (4), RC No. 3
25	Flaked lithic, thin uniface
26	Ceramic, EP Gray jar sherd
27	Ceramic, EP Gray jar sherd
28	Flaked lithic debitage
29	Ceramic, EP Gray jar sherds (3)
30	Flaked lithic debitage
31	Flaked lithic debitage
32	Ceramic, EP Gray jar sherd
33	Flaked lithic, used flake
	Item misplaced
34	Ceramic, EP Gray jar sherd
35	Flaked lithic debitage
36	Ceramic, Chapin Gray jar sherd
37	Ceramic, EP Gray jar sherd
38	Flaked lithic, thin uniface
39	Ceramic, EP Gray jar sherds (7)
	Ceramic, EP Red bowl sherds (5), RC No. 7
40	Ceramic, EP Gray jar sherd

Table 7.3 Point-Located Artifacts, Pithouse 1, Casa Bodega Hamlet (Page 2 of 8)

PL #	Description
41	Ceramic, EP Gray jar sherds (7), RC No. 3
42	Ceramic, EP Gray jar sherds (5), RC No. 3
43	Ceramic, EP Gray jar sherd, RC No. 3
44	Ceramic, EP Gray jar sherds (2), RC No. 3
45	Ceramic, EP Gray jar sherd, RC No. 3
46	Ceramic, EP Gray jar sherd
47	Ceramic, Chapin Gray jar sherd
	Ceramic, EP Gray jar sherds (5)
48	Ceramic, Moccasin Gray jar sherds (2), RC No. 8
49	Ceramic, EP Gray jar sherds (2), RC No. 3
50	Flaked lithic debitage
51	Flaked lithic debitage
52	Ceramic, EP Gray jar sherds (2), RC No. 3
53	Ceramic, EP Gray jar sherd
	Ceramic, Moccasin Gray jar sherds (3), RC No. 8
54	Ceramic, Moccasin Gray jar sherds (2), RC No. 8
55	Ceramic, EP Gray jar sherds (2), RC No. 3
56	Nonflaked lithic, one-hand mano
57	Ceramic, EP Gray jar sherd, RC No. 3
58	Ceramic, EP Gray jar sherds (3)
59	Ceramic, Chapin Gray jar sherds (4), RC No. 4
	Ceramic, EP Gray jar sherd
60	Flaked lithic debitage
61	Ceramic, EP Gray jar sherd
62	Ceramic, EP Gray jar sherd
63	Flaked lithic, used core
64	Flaked lithic debitage
65	Flaked lithic debitage
66	Item misplaced
67	Ceramic, Chapin Gray jar sherds (2), RC No. 4
68	Ceramic, Chapin Gray jar sherd, RC No. 4
69	Ceramic, EP Gray jar sherd
70	Ceramic, Moccasin Gray jar sherds (2), RC No. 8
71	Ceramic, EP Gray jar sherd
72	Flaked lithic debitage
73	Flaked lithic debitage (3)
74	Flaked lithic, used core
75	Flaked lithic, used core
76	Ceramic, Chapin Gray jar sherds (2)
77	Flaked lithic debitage
78	Flaked lithic, thin biface
	Flaked lithic debitage
79	Flaked lithic debitage
80	Flaked lithic debitage
81	Ceramic, EP Red bowl sherds (11), RC No. 5
82	Ceramic, EP Gray jar sherd (4)
83	Flaked lithic debitage
84	Ceramic, EP Gray jar sherds (2)

Table 7.3 Point-Located Artifacts, Pithouse 1, Casa Bodega Hamlet (Page 3 of 8)

PL #	Description
85	Ceramic, EP Gray jar sherd, RC No. 3
86	Ceramic, EP Gray jar sherds (4), RC No. 3
87	Ceramic, EP Gray jar sherds (2)
88	Ceramic, EP Gray jar sherds (5), RC No. 3
89	Ceramic, Moccasin Gray jar sherd
	Ceramic, EP Gray jar sherd
90	Nonhuman bone, Odocoileus hemionus
91	Flaked lithic debitage
92	Flaked lithic debitage
93	Flaked lithic debitage
94	Flaked lithic debitage
95	Flaked lithic debitage
96	Ceramic, EP Gray jar sherd, RC No. 3
97	Flaked lithic debitage
98	Nonflaked lithic, metate fragment
99	Ceramic, EP Gray jar sherd
100	Ceramic, EP Gray jar sherd
101	Ceramic, EP Gray jar sherd
102	Ceramic, EP Gray jar sherds (6)
	Ceramic, EP Gray jar sherd, RC No. 2
103	Flaked lithic debitage
104	Ceramic, EP Gray jar sherd, RC No. 2
105	Ceramic, EP Gray jar sherds (3)
106	Ceramic, EP Gray jar sherd
107	Ceramic, EP Gray jar sherd
108	Ceramic, EP Gray jar sherd
109	Flaked lithic debitage
110	Ceramic, EP Gray jar sherds (3), RC No. 3
111	Ceramic, EP Gray jar sherd, RC No. 3
112	Ceramic, EP Gray jar sherds (4), RC No. 3
113	Ceramic, EP Gray jar sherd, RC No. 3
114	Flaked lithic debitage
115	Flaked lithic, side-worked uniface
116	Ceramic, EP Gray jar sherds (3)
117	Ceramic, Moccasin Gray jar sherd, RC No. 2
	Ceramic, EP Gray jar sherds (6), RC No. 3
118	Ceramic, Moccasin Gray jar sherd
	Ceramic, EP Gray jar sherds (4)
119	Ceramic, raw clay (6)
120	Ceramic, EP Gray jar sherd, RC No. 2
121	Ceramic, EP Gray jar sherds (2)
122	Ceramic, EP Gray jar sherds (3)
123	Ceramic, EP Gray jar sherd
124	Ceramic, EP Gray jar sherds (2)
125	Ceramic, EP Gray jar sherds (2)
126	Ceramic, EP Gray jar sherd, RC No. 2
127	Ceramic, Moccasin Gray jar sherd
	Ceramic, EP Gray jar sherds (2)

Table 7.3 Point-Located Artifacts, Pithouse 1, Casa Bodega Hamlet (Page 4 of 8)

PL #	Description
128	Ceramic, EP Gray jar sherd
129	Ceramic, EP Gray jar sherd, RC No. 2
130	Ceramic, EP Gray jar sherds (2)
131	Nonflaked lithic, not modified
132	Ceramic, EP Gray jar sherd
133	Nonflaked lithic, metate
134	Ceramic, EP Gray jar sherds (2)
135	Ceramic, EP Gray jar sherd
136	Ceramic, EP Gray jar sherd, RC No. 2
137	Ceramic, EP Gray jar sherds (2), RC No. 3
138	Ceramic, Chapin Gray pipe, RC No. 6
139	Ceramic, EP Gray jar sherd, RC No. 2
140	Ceramic, EP Gray jar sherd, RC No. 2
141	Ceramic, EP Gray jar sherd, RC No. 2
142	Ceramic, EP Gray jar sherds (13), RC No. 2
143	Flaked lithic debitage
144	Ceramic, EP Gray jar sherd
145	Ceramic, EP Gray jar sherds (3)
146	Inorganic, fossilized shell
147	Ceramic, EP Gray jar sherd
148	Ceramic, EP Gray jar sherds (4), RC No. 3
149	Nonhuman bone, Ovis canadensis, awl
150	Ceramic, EP Gray jar sherds (5), RC No. 3 Ceramic, EP White bowl sherd, RC No. 1
151	Ceramic, EP Red bowl sherd
152	Nonflaked lithic, metate
153	Flaked lithic debitage
154	Flaked lithic debitage
155	Ceramic, EP Gray jar sherd
156	Ceramic, EP Gray jar sherd
157	Item misplaced
158	Flaked lithic debitage
159	Ceramic, EP Gray jar sherd, RC No. 3
160	Ceramic, EP Gray jar sherds (2)
161	Ceramic, EP Gray jar sherds (2), RC No. 2 Ceramic, EP White bowl sherd, RC No. 1
162	Ceramic, EP Gray jar sherd
163	Ceramic, EP Gray jar sherds (3), RC No. 3
164	Ceramic, EP Gray jar sherd
165	Flaked lithic debitage
166	Flaked lithic debitage
167	Nonflaked lithic, not modified
168	Nonflaked lithic, not modified
169	Ceramic, EP Gray jar sherd
170	Item misplaced
171	Ceramic, EP Gray jar sherd
172	Ceramic, EP Gray jar sherd
173	Ceramic, EP Gray jar sherd

Table 7.3 Point-Located Artifacts, Pithouse 1,
Casa Bodega Hamlet (Page 5 of 8)

PL #	Description
174	Ceramic, EP Gray jar sherd
175	Nonflaked lithic, not modified
176	Ceramic, EP Red jar sherds (13)
177	Item misplaced
178	Ceramic, EP Gray jar sherd
179	Ceramic, EP Gray jar sherd
180	Ceramic, EP Gray jar sherd
181	Ceramic, EP Gray jar sherds (3)
182	Ceramic, EP Gray jar sherd
183	Ceramic, EP Gray jar sherd
184	Ceramic, EP White bowl sherd
185	Item misplaced
186	Ceramic, EP Gray jar sherds (3) Ceramic, Moccasin Gray jar sherd
187	Ceramic, EP Gray jar sherd
188	Ceramic, EP Gray jar sherd
189	Ceramic, EP Gray jar sherd, RC No. 3
190	Ceramic, EP Gray jar sherd Ceramic, EP White bowl sherds (4), RC No. 1
191	Ceramic, EP White bowl sherd, RC No. 1 Ceramic, EP Gray jar sherd, RC No. 2
192	Ceramic, EP Gray jar sherd, RC No. 2
193	Nonflaked lithic, not modified
194	Flaked lithic, thick biface
195	Ceramic, EP Gray jar sherds (3), RC No. 3
196	Ceramic, EP Gray jar sherds (3), RC No. 2
197	Ceramic, EP Gray jar sherds (2)
198	Nonflaked lithic, not modified
199	Ceramic, EP White bowl sherds (2), RC No. 1
200	Ceramic, EP White bowl sherds (2), RC No. 1
201	Ceramic, EP Gray jar sherd, RC No. 3
202	Ceramic, EP Gray jar sherd, RC No. 2
203	Flaked lithic debitage
204	Ceramic, EP Gray jar sherds (3) Ceramic, EP Gray jar sherd, RC No. 2 Ceramic, EP Gray jar sherd, RC No. 3
205	Ceramic, EP Gray jar sherds (3), RC No. 2
206	Flaked lithic debitage
207	Ceramic, EP Gray jar sherds (4)
208	Ceramic, EP Gray jar sherds (2)
209	Ceramic, EP White bowl sherd, RC No. 1
210	Flaked lithic debitage
211	Ceramic, EP Gray jar sherds (2), RC No. 3
212	Ceramic, EP Gray jar sherds (3), RC No. 3
213	Ceramic, EP Gray jar sherds (4), RC No. 3
214	Ceramic, EP Gray jar sherd, RC No. 3
215	Nonflaked lithic, not modified
216	Ceramic, EP White bowl sherds (3), RC No. 1

Table 7.3 Point-Located Artifacts, Pithouse 1,
Casa Bodega Hamlet (Page 6 of 8)

PL #	Description
216	Ceramic, EP Gray jar sherd, RC No. 3
217	Nonflaked lithic, not modified
218	Ceramic, EP Gray jar sherd
219	Ceramic, EP Gray jar sherds (3)
220	Ceramic, EP Gray jar sherds (2)
221	Ceramic, EP Gray jar sherd, RC No. 2
222	Ceramic, Chapin Gray jar sherds (3), RC No. 4
223	Ceramic, EP Gray jar sherd, RC No. 2
	Ceramic, EP White bowl sherd, RC No. 1
224	Ceramic, EP Gray jar sherds (2)
225	Item misplaced
226	Item misplaced
227	Flaked lithic debitage
228	Ceramic, EP Gray jar sherds (4), RC No. 2
	Ceramic, EP White bowl sherd, RC No. 1
229	Ceramic, EP Gray jar sherds (17), RC No. 2
	Ceramic, EP White bowl sherds (4), RC No. 1
230	Ceramic, EP Gray jar sherds (7)
	Ceramic, EP Gray jar sherd, RC No. 3
	Ceramic, EP Gray jar sherd, RC No. 2
	Ceramic, EP White bowl sherds (3), RC No. 1
231	Ceramic, EP Gray jar sherd (3), RC No. 1
	Ceramic, EP White bowl sherds (5)
232	Ceramic, EP Gray jar sherds (6)
233	Flaked lithic debitage
234	Flaked lithic debitage
235	Flaked lithic, projectile point
236	Nonflaked lithic, not modified
237	Ceramic, Chapin Gray jar sherds (2)
	Ceramic, EP Gray jar sherds (14)
238	Flaked lithic debitage
239	Ceramic, EP Gray jar sherds (3)
240	Ceramic, EP Gray jar sherds (3)
241	Flaked lithic debitage
242	Ceramic, EP Gray jar sherds (2)
243	Item misplaced
244	Ceramic, EP Gray jar sherds (2)
245	Ceramic, EP Gray jar sherds (3)
246	Flaked lithic debitage
247	Flaked lithic debitage
248	Flaked lithic debitage (4)
249	Flaked lithic debitage
250	Ceramic, EP Gray jar sherds (5)
251	Ceramic, EP Red bowl sherd, RC No. 5
252	Flaked lithic debitage
253	Flaked lithic debitage
254	Ceramic, EP Gray jar sherd
255	Nonflaked lithic, shaped stone slab

Table 7.3 Point-Located Artifacts, Pithouse 1,
Casa Bodega Hamlet (Page 7 of 8)

PL #	Description
256	Nonhuman bone, Lepus californicus
257	Nonflaked lithic, shaped stone slab
258	Ceramic, Moccasin Gray jar sherd
	Ceramic, EP Gray jar sherds (3)
259	Ceramic, EP Gray jar sherd
260	Ceramic, EP Gray jar sherds (4)
261	Ceramic, EP Gray jar sherds (10)
262	Ceramic, EP Gray jar sherds (2)
263	Ceramic, EP Gray jar sherd
264	Ceramic, Moccasin Gray jar sherd, RC No. 8
265	Ceramic, EP Gray jar sherds (2)
	Ceramic, Moccasin Gray jar sherds (2), RC No. 8
266	Flaked lithic debitage
267	Flaked lithic debitage
268	Flaked lithic debitage
269	Flaked lithic debitage
270	Flaked lithic, thick uniface
271	Ceramic, Moccasin Gray jar sherds (2), RC No. 8
272	Ceramic, Moccasin Gray jar sherds (3), RC No. 8
273	Ceramic, EP Gray jar sherd
274	Ceramic, EP Gray jar sherd
275	Ceramic, EP White bowl sherd
276	Flaked lithic debitage
277	Ceramic, EP Gray jar sherd
	Ceramic, Moccasin Gray jar sherds (4), RC No. 8
278	Ceramic, EP Gray jar sherd
	Ceramic, Moccasin Gray jar sherd, RC No. 8
279	Ceramic, Abajo Red-on-orange bowl sherd, RC No. 7
280	Item misplaced
281	Ceramic, EP Gray jar sherd
282	Ceramic, EP Gray jar sherd
283	Ceramic, EP Gray jar sherd
284	Ceramic, Moccasin Gray jar sherd, RC No. 8
285	Nonflaked lithic, shaped hammerstone
286	Flaked lithic, used core
287	Flaked lithic debitage
288	Ceramic, EP Gray jar sherds (2)
289	Ceramic, Abajo Red-on-orange bowl sherds (2), RC No. 7
290	Ceramic, EP Gray jar sherd
290	Ceramic, Abajo Red-on-orange bowl sherd, RC No. 7
291	Flaked lithic, graver
292	Ceramic, Moccasin Gray jar sherd
293	Item misplaced
294	Ceramic, Moccasin Gray jar sherd
	Ceramic, EP Gray jar sherd
295	Ceramic, EP Gray jar sherd
296	Ceramic, Moccasin Gray jar sherd, RC No. 8
297	Nonflaked lithic, not modified

Table 7.3 Point-Located Artifacts, Pithouse 1, Casa Bodega Hamlet (Page 8 of 8)

PL #	Description
298	Flaked lithic, used core
299	Flaked lithic, used core
300	Nonflaked lithic, indeterminate
301	Flaked lithic debitage
302	Nonflaked lithic, indeterminate
303	Nonflaked lithic, hammerstone
304	Flaked lithic, used flake
305	Nonflaked lithic, not modified
306	Nonflaked lithic, indeterminate
307	Flaked lithic, used core
308	Flaked lithic, used core
309	Nonflaked lithic, not modified
310	Nonflaked lithic, two-hand mano
311	Nonflaked lithic, two-hand mano
312	Flaked lithic, used core
313	Flaked lithic, used core
314	Nonflaked lithic, mano
315	Flaked lithic debitage
316	Ceramic, EP Gray jar sherd, RC No. 2 Ceramic, EP Gray jar sherds (36), RC No. 3 Ceramic, Moccasin Gray jar sherd, RC No. 8
318	Nonflaked lithic, shaped stone slab
319	Item misplaced
320	Nonflaked lithic, hammerstone
321	Ceramic, EP Gray jar sherds (7) Ceramic, Moccasin Gray jar sherds (2)
322	Flaked lithic debitage
323	Ceramic, EP Gray jar sherd
324	Ceramic, EP Gray jar sherds (5)
325	Ceramic, EP Gray jar sherd Ceramic, Moccasin Gray jar sherd, RC No. 8
326	Flaked lithic, thin uniface
327	Flaked lithic, used core
328	Ceramic, EP Gray jar sherd
329	Ceramic, EP Gray jar sherd
330	Ceramic, EP Gray jar sherd
331	Ceramic, EP Gray jar sherd
332	Ceramic, Moccasin Gray jar sherd, RC No. 8
333	Ceramic, EP Gray jar sherds (34)
334	Flaked lithic debitage

*See Figure 7.15 for artifact locations.

EP - Early Pueblo
RC - Reconstructable vessel
( ) - Number of items, if greater than one

or on the surface of the feature. It is inferred that the area was used for storage, based on its construction (i.e., sandstone slabs, raised floor, and location in the pithouse wall); however, the lack of organic material prevents speculation as to what might have been stored there.

Interpretations: Pithouse 1 is a small pithouse that apparently had only a few features functioning at the time of abandonment. It seems possible that several of the features were plastered over just prior to abandonment, perhaps for some ceremonial reason involving the exodus from a site. It is also possible that the features which appear to have been no longer in use had been capped seasonally and were not being used when the site was abandoned. Those features could easily have been reused over and over again.

Use Area 4. Use Area 4, an economic discard area for the site, is the southernmost use area at Site 5MT2194. Use Area 4 has been designated as a single activity area (Activity Area 8). Post-occupational processes scattered the cultural remains, forming a fine layer of trash extending southward; cultural material recovered in Use Area 4 was minimal. With the exception of the large artifact assemblage on the pithouse floor, the material culture assemblage from the entire site was small when compared to other similar sites in the D.A.P. area, so the small collection from Use Area 4 is not unexpected. A pit (Feature 8), located 10 m south of Pithouse 1, was the only feature associated with Use Area 4. The feature was heavily disturbed by rodents, but the straight walls and basin shape indicate that the pit was indeed cultural. The pit contained a concentration of sherds and lithic artifacts, intermixed with charcoal flecks throughout. A functional interpretation of this feature has not been attempted.

MATERIAL CULTURE

Ceramics

The ceramics recovered from survey and excavation of Site 5MT2194 include gray, white, and red wares. The most commonly occurring ceramics are body sherds of gray ware vessels. These Early Pueblo Gray sherds account for 77.9 percent by weight of the total recovered ceramics. Also recovered were Chapin Gray (7.0 percent by weight), Moccasin Gray (5.2 percent of weight), and Corrugated Body Sherds (0.1 percent by weight). The corrugated sherds were recovered in the plow zone and are not associated with the occupation of the site.

Chapin Black-on-white and Early Pueblo White sherds account for the small amount of white ware found in the site (60 sherds, 1.7 percent by weight). Red ware sherds were more common than white ware, with Abajo Red-on-orange and Early Pueblo Red totaling 103 sherds (8.1 percent by weight). In addition, a total of seven fragments of raw clay, suggesting some manufacture of ceramic items at the site, were recovered from the fill of Room 1 and the pithouse floor. No ceramics from outside the Mesa Verde region were recorded in the ceramic assemblage from the site.

A number of partially reconstructable ceramic items (Figures 7.16 and 7.17) were recovered from the floor of Pithouse 1. None of the vessels could be fully reconstructed, suggesting that these items were not whole at the time of their deposition in the structure. Further discussion of the ceramic materials recovered from Site 5MT2194 is presented in Appendix A.

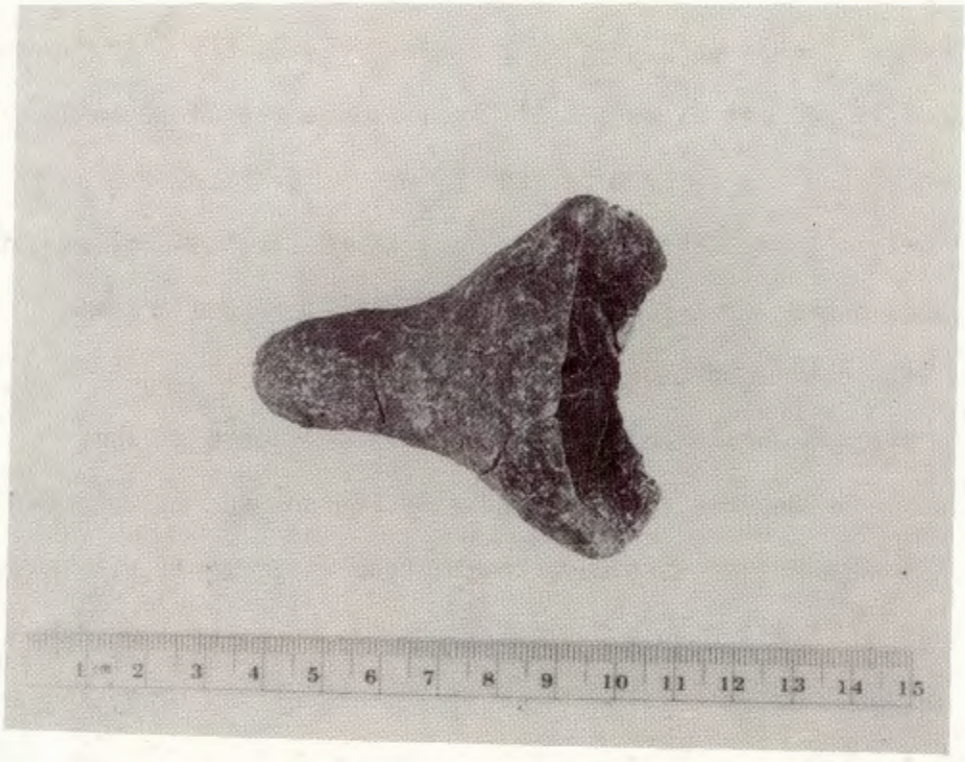

Figure 7.16 Ceramic cornucopia (RC 6) from floor of Pithouse 1, Casa Bodega Hamlet (D.A.P. 117234).

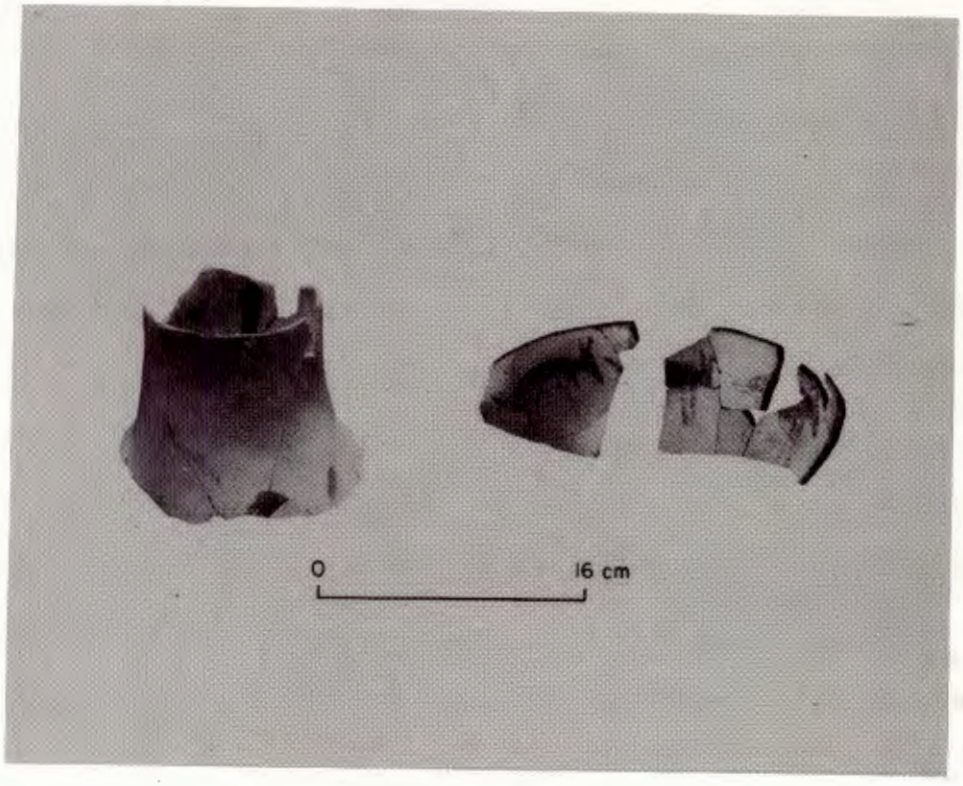

Figure 7.17 Selected reconstructable vessels from Casa Bodega Hamlet: left, RC 7 from floor of Pithouse 1; right, RC 4 from floor of Pithouse 1 (D.A.P. 116604).

Lithics

The lithic artifacts recovered from Casa Bodega Hamlet are divided into two general categories, flaked lithics and nonflaked lithics. A total of 94 flaked lithic tools were recovered from the site. Flaked lithic debitage accounted for 587 items. There were 63 nonflaked lithic items recovered during the excavation. Figure 7.18 illustrates the relatively complete projectile points from the site.

Flaked Lithics

The flaked lithic tools from Site 5MT2194 are summarized in Appendix B. A large proportion of the assemblage comprises low-input items such as utilized flakes and cores. The thinning stage evaluations also support the suggestion of an expediently produced tool assemblage. Less than 10 percent of the tools have item thinning, and over 25 percent still have cortex remaining on the dorsal surface.

The breakdown of the site into subunits suggests functional differences between areas. The surface collection is dominated by utilized flakes (70.6 percent), possibly resulting from nonrepresentative collection. The small sample sizes in other subunits make comparisons difficult, but there do appear to be some functional differences between the surface structures and the pithouse floor. In the surface structures the relatively high percentage of high input items (projectile points, bifaces, and thin scrapers) indicates a specialized activity, possibly associated with hunting or butchering. The high frequency of very fine and microscopic raw materials supports the suggestion of the highly curated nature of these artifacts. Tools present on the pithouse floor indicate a functionally different situation. The very high percentage of cores, used cores, and

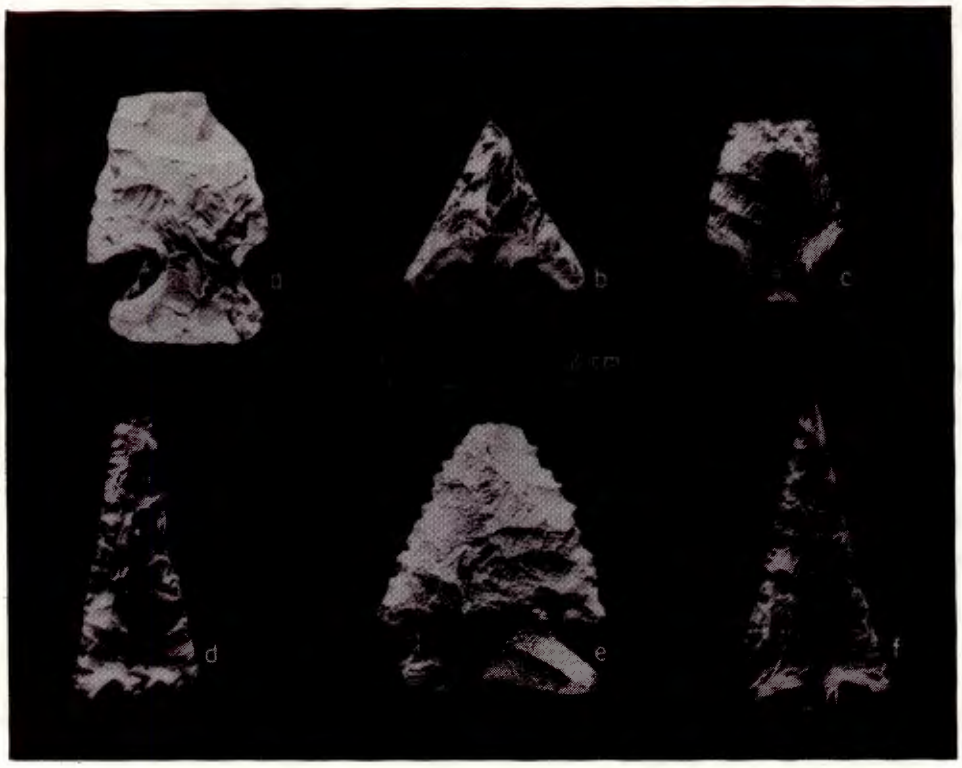

Figure 7.18 Selected projectile points from Casa Bodega Hamlet: (a) modern ground surface; (b) fill of Room 1; (c) plow zone, 2 by 2 m grid square 34S, 24E; ;(d) plow zone, 4 by 4 m grid square 30S, 26E; (e) modern ground surface; (f) fill of Pithouse 1 (D.A.P. 116603).

thin scrapers may indicate activities involving processing. A functional analysis of these tools could be used to test the above hypotheses.

Appendix B also presents a data summary for flaked lithic debitage. The debitage grain size percentages indicate that production and maintenance of tools at the site is somewhat focused on fine-grained materials at the expense of microscopic-grained materials. Throughout the site, mean weights of debitage are very high, supporting the conclusion that coarser-grained raw materials are the predominant material types. A breakdown of debitage by site subunits does not suggest any functional differences between those units.

Nonflaked Lithics

As indicated in the nonflaked lithic tool data summary presented in Appendix B, 40 percent of the tools at Site 5MT2194 are nonflaked lithics. Generalized unhafted tools and manos account for 60 percent of the nonflaked lithic tools and indicate a fairly general nonflaked lithic industry. The breakdown of the site into subunits indicates the presence of functional differences within the site. A comparison of the pithouse assemblage, from both fill and floor proveniences, with the other excavation units suggests that food processing, as represented by manos and metates, occurred in or near the pithouse, while more general activities took place near the surface structures and other activity loci within the site. Approximately 77 percent of the manos and metates occur on the pithouse floor or in the pithouse fill, while 67 percent of the generalized unhafted tools occur within the surface structures or the other activity loci within the site.

Nonhuman Bone

A total of 70 nonhuman bones was recovered from Casa Bodega Hamlet. Two-thirds of these are mammal bones that could not be identified to species. Five bone awls (Figure 7.19) were recovered: one unidentifiable mammal, two bighorn sheep (Ovis canadensis), and two mule deer (Odocoileus hemionus). With such a small collection of bones it is difficult to make any statements about faunal resource utilization. Additional description of the faunal remains recovered at Site 5MT2194 is presented in Appendix C.

Pollen

Of the nine pollen samples analyzed from the site, only three, all from Pithouse 1, had sufficient pollen for analysis. Each of these samples contained large quantitites of Artemisia pollen. Several plants with documented economic importance in the Southwest were also represented in these pollen samples, including Cleome, Ephedra, Eriogonum, possible Solanum, and Portulaca. Refer to Appendix D for further discussion of these samples.

Archaeomagnetic Sampling

The single archaeomagnetic sample taken from this site yielded uninterpretable results. For more details see Appendix E.

Botanical Remains

Nine bulk soil samples and three vegetal specimens have been analyzed from Casa Bodega. Results suggest use of shrubs, trees, and corn cob fragments for fuel. Remains of several ruderal plants, including

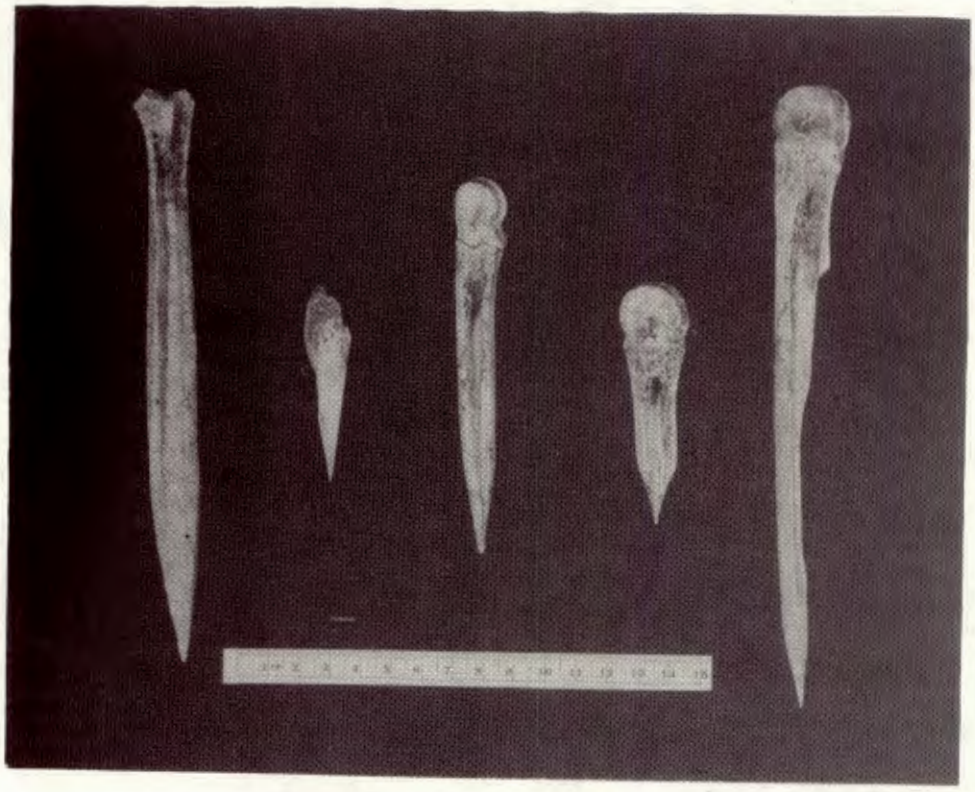

Figure 7.19 Bone awls recovered at Casa Bodega Hamlet. Left to right: (a) *Odocoileus hemionus*; floor of Pithouse 1 (PL 8); (b) large mammal, fill of Pithouse 1; (c) *Ovis canadensis*, fill of Pithouse 1; (d) *Ovis canadensis*, floor of pithouse 1; (e) *Odocoileus hemionus*, fill of Pithouse 1 (D.A.P. 115022).

Portulaca sp. and Physalis sp., were recovered, possibly indicating that these plants were used as food. Further discussion of these results can be found in Appendix F.

CONCLUSION

Casa Bodega consists of a small pithouse; nine outdoor pits or hearths; three storage rooms, two of which are unusually small; and an area of sheet trash to the south of the pithouse. The relatively small artifact assemblage recovered from the site suggests a short occupation. It is inferred that the site was occupied by a small group, such as a nuclear family, for perhaps not more than one generation.

Based on the presence of arable soils, Sagehen Flats Locality is considered to have been a good location for prehistoric agriculture. This inference is supported by the high density of Basketmaker III through Pueblo I habitation sites in this locale.

Because Casa Bodega lacked any datable samples (e.g., tree-ring, archaeomagnetic), dating of the site depends on architectural characteristics and ceramic typologies. Architecturally, Casa Bodega is typical of the Sagehill Subphase (A.D. 600-760) of the Sagehen Phase (A.D. 600-850) (Hewitt [15]). The small though deep pithouse, small central hearth, and the lack of a bench all indicate a construction date between A.D. 600 and 760. In addition, informal roomblocks of the type found at Casa Bodega are also typical of the Sagehill Subphase. However, the presence of Moccasin Gray and Chapin Black-on-white ceramics (5.3 percent by total weight), in good cultural context, indicates that the site was actually occupied sometime between A.D. 775 and 850, during the Dos Casas Subphase (A.D. 760-850) of the Sagehen Phase.

APPENDIX A

CERAMIC REPORT FOR CASA BODEGA HAMLET

by

William A. Lucius

Preliminary (inventory) analysis of the ceramic complement from Site 5MT2194 was carried out by members of the D.A.P. additive analysis laboratory subsequent to the field operations. Descriptions of the preliminary analysis procedures and structure, and resulting data interpretability are available in Lucius [17]. Familiarity with the inventory analysis program will aid in the understanding of the data and interpretations provided below.

Table 7.A.1 is a summary of ceramic frequencies for the site as a whole and for selected subunits of the site (ceramics collected during the 1972 inventory survey are included). Sherds are grouped by "culture categories and wares" (Lucius [18]). All sherds from Site 5MT2194 were assigned to wares of the Mesa Verde Culture Category and reflect a local (Mesa Verde region) manufacturing tradition and exchange system. Pottery types within each ware are listed sequentially from early to late, and grouped types (e.g., Early Pueblo Gray) are listed last and include sherds not assignable to specific types (e.g., gray ware body sherds).

Reconstructable ceramic (RC) items, which include all whole or fragmentary vessels as well as special nonvessel shapes, are not included in the data totals. Table 7.A.2 documents the traditional types represented and the vessel numbers.

The ceramic complement from Site 5MT2194 reflects a range of occupation consistent with the early Pueblo I period of occupation (A.D. 700-850). In the temporal systematics of the D.A.P., the site fits comfortably within the Dos Casas Subphase of the Sagehen Phase (Kane [2]). Temporal spans for the diagnostic types are based on Breternitz et al. [19] with some adjustments based on dating results from within the D.A.P. This assignation is at odds with the date assigned by architectural

seriation of the pitstructure style (A.D. 700-760, Hewitt [15]). It is possible that the site was occupied prior to A.D. 750, but no ceramic confirmation of such an early occupation is possible due to the longevity of the two primary types of that time period (Chapin Gray and Chapin Black-on-white). If such an occupation occurred, the ceramics indicate that the pitstructure floor surface was being used sometime after A.D. 775, as Moccasin Gray has been dated as occurring in sites of the Dolores River area only after A.D. 775. The presence of Abajo Red-on-orange ceramics on the pitstructure floor surface also supports the dating of the site use subsequent to A.D. 750.

A total of 90.9 percent of the sherds (by weight) contain a crushed river cobble temper which is characteristic of ceramics of local manufacture. The remainder of the sherds contain various types of crushed sandstone temper, possibly indicating that the site inhabitants had access to ceramics manufactured outside the Dolores River valley. The exact location of manufacture for ceramics with the characteristic sandstone temper within the Mesa Verde region is unknown but it is expected that the presence of such ceramics in sites of the D.A.P. reflects intraregional contact with other ceramic producing areas of the Mesa Verde region. No temper types diagnostic of ceramics manufactured outside of the Mesa Verde region were recorded in the analysis.

The large amount of ceramic debris located on the pithouse floor surface at Site 5MT2194 allowed for the partial reconstruction of eight vessels or ceramic items. No partial or whole items were recovered from other excavation units of the site. The majority of the items listed as reconstructable ceramics represent broken bowls or jars that could not be fully reassembled, perhaps indicating that they were not deposited in the

pitstructure as whole items. Reconstructable vessel 4 represents a neck portion of a Chapin Gray jar; the body of the jar could not be located among the sherds in floor contact. Abrasion of the broken edges of the rim suggest that the item was used after being broken from the body. Two other items deserve special consideration. A partial red ware bowl with lifeforms suggesting deer was recovered from the deposits (RC 7). Lifeforms, although uncommon in Basketmaker III and Pueblo I ceramics of the D.A.P. area, have been recorded as fragments in other sites. Also recovered from the floor of the pitstructure was a cone-shaped object such as those illustrated in Guernsey [20] and Amsden [21]. The item was constructed of clay and was recovered in an unfired state. Light smudging of the interior of the cup suggests that a burning organic material may have been placed into the item during its use.

In summary, Site 5MT2194 exhibits a ceramic assemblage which is characteristic of the early portion of the Pueblo I period; Abajo Red-on-orange and Moccasin Gray were found associated with the floor in Pithouse 1. A date range of use, based on the ceramics, is from A.D. 750-850. A number of ceramic artifacts, including eight reconstructable ceramic items, was recovered from the floor of Pithouse 1.

Table 7.A.1 Ceramic Assemblage at Casa Bodega Hamlet*

	Surface Collection		Rooms		Pithouse 1								Other Excavated Units		SITE TOTAL	
					Fill Above Roof Fall		Roof Fall		Floor		Total					
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MESA VERDE GRAY WARE																
Chapin Gray	16	5.7			5	4.1	5	6.1	18	2.5	28	3.0	38	4.3	82	2.7
Moccasin Gray	1	0.4	1	2.0	7	5.7	6	7.3	48	6.5	61	5.5	5	0.5	68	2.2
Early Pueblo	254	90.1	43	86.0	102	83.6	67	81.7	598	81.5	767	81.8	779	87.6	1843	60.5
Corr Body Sherds					2	1.6					2	0.2	1	0.1	3	0.1
MESA VERDE WHITE WARE																
Chapin B/W	1	0.4											1	0.1	2	0.1
Early Pueblo	3	1.1	1	2.0	1	0.8			33	4.5	34	3.6	20	2.4	58	1.9
MESA VERDE RED WARE																
Abajo R/O							3	3.6	10		13	1.4			13	0.4
Early Pueblo	7	2.5	5	10.0	5	4.1	1	1.2	27	1.4	33	3.5	45	5.1	90	2.9
OTHER																
TOTALS	282	100.0	50	100.0	122	100.0	82	100.0	734	100.0	938	100.0	899	100.0	2159	100.0
VESSEL FORMS																
Bowl	4	1.4	2	4.0	1	0.8	3	3.6	57	7.8	61	5.5	42	4.7	109	3.6
Jar	278	98.6	47	94.0	121	99.2	79	96.4	676	92.1	876	94.3	846	95.2	2047	67.2
Other			1	2.0					1	0.4	1	0.1	1	0.1	3	0.1

*Ceramic data from site survey collection are included in this table.

Corr - Corrugated
B/W - Black-on-white
R/O - Red-on-orange

Table 7.A.2 Reconstructable Vessels Listed by Traditional Type for Casa Bodega Hamlet

	VESSEL NUMBER								
	1	2	3	4	5	6	7	8	TOTALS
MESA VERDE GRAY WARE									
Chapin Gray				1					1
Moccasin Gray								1	1
Early Pueblo Gray		1	1			1			3
MESA VERDE WHITE WARE									
Early Pueblo	1								1
MESA VERDE RED WARE									
Early Pueblo					1		1		2
Kayenta									
OTHER									
TOTALS									8
VESSEL FORMS									
Bowl	1				1		1		3
Jar		1	1	1				1	4
Other						1			1

APPENDIX B

LITHIC REPORT FOR CASA BODEGA HAMLET

by

Thomas H. Hruby and Carl J. Phagan

The data presented in Tables 7.B.1, 7.B.2, and 7.B.3 represent part of the lithic reductive-technology analysis completed for Site 5MT2194. From a 12-attribute Flaked Lithic Tool (FLT) analysis system, 4 attributes were selected to illustrate general technological, functional, and raw-material variablity. A traditional morphological-use classification, a ranked estimation of production technology input for dorsal and ventral surfaces, and a grain-size evaluation are included. Six variables are included from the Flaked Lithic Debitage (FLD) analysis system: grain-size ranking, classification of items with cortex, items which retain a striking platform, obsidian items, mean weight, and total number of debitage items. The Nonflaked Lithic Tool (NFLT) analysis system is represented by four variables: traditional morphological-use item classification, production-input evaluation, indication of item completeness, and raw-material grain-size evaluation. The complete lithic-analysis systems are described elsewhere in D.A.P. publications (Phagan [22]).

During 1980 the D.A.P. lithic-laboratory personnel have repeatedly reviewed the utility and reliability of the lithic-analysis systems. In this review, a number of analysis variables have been modified, particularly the item morphological-use variables on both the FLT and NFLT systems. Analytical perspectives change as information accumulates and as models of tool production and use improve. In order to minimize the effects of this analytical modification on interpretation, the observed values of these variables have been regrouped into larger categories within which analytic consistency is reliable.

For comparative purposes, the tables include data for a grouping of temporally and functionally similiar D.A.P. sites, as well as data for all

D.A.P. Anasazi sites analyzed prior to the 1980 field season. These latter "Anasazi group" data have been generated from computer files which have not undergone complete editing, and final figures may differ slightly from those presented. Comparisons and interpretations presented here, particularly those of an intersite nature, are based on a qualitative assessment of lithic profile variation, since significance has not been statistically established. These interpretations have not taken into consideration such variables as abandonment mode or collection strategy. It is assumed that, on this gross comparative level, such variables will tend to "balance out."

Site 5MT2194 is interpreted as a unit hamlet placed within the Das Casas Subphase, Sagehen Phase, of the D.A.P. Anasazi Tradition. In general terms, the lithic artifacts from Site 5MT2194 are comparable to other Dos Casas Subphase unit hamlets and to the group of Anasazi sites, though there are several minor differences. Most of the habitations in the D.A.P. area have about 60 percent flaked lithic tools and about 40 percent nonflaked lithic tools. The lithic assemblage from 5MT2194 has 59.9 percent flaked lithic tools and 40.1 percent nonflaked lithic tools. Another general comparative index is the ratio of flaked tools to the total flaked lithic count. Site 5MT2194 has 13.8 flaked lithic tools to 100 flaked lithics, while Dos Casas Subphase sites and the Anasazi group have a ratio of 12.0 and 9.6 tools per 100 items of flaked lithics, respectively. These basic similarities suggest that Anasazi habitations have similar lithic technologies. The general interpretation of Anasazi lithic technology is that of economically independent households using an expedient technology.

In very general terms, Site 5MT2194 demonstrates no patterns of lithic characteristics that challenge or contradict its placement in the Dos Casas Subphase unit hamlet grouping. In the FLT profile, the assemblage is dominated by utilized flakes and cores. Though the individual percentages for these tool groups vary between sites, they generally account for about 60 percent of the FLT assemblages on the D.A.P. Thick unifaces are underrepresented at Site 5MT2194, while projectile points and specialized forms are overrepresented. The differences in morpho-use frequencies suggest the possibility of some specialized activity taking place at the site. Dorsal and ventral thinning stage evaluations and raw material grain-size breakdowns all demonstrate very close correspondence with the Dos Casas Subphase and the Anasazi group data sets.

The FLD profiles show a great deal of similarity. Percentages of raw material types are very similar between groups, as are the relative counts of striking platform and cortex items. The only discrepancy is the slightly high mean debitage weight for Site 5MT2194.

Among nonflaked lithic (NFL) items, Site 5MT2194 demonstrates slightly higher proportions of generalized, unhafted items and of all categories of metates. Proportions of manos and hammerstones are relatively low. In addition, the percentage of well-shaped NFL items is slightly higher. The profile of nonflaked lithic tools is, like the flaked lithic profiles, "typical Anasazi." No characteristics demonstrate an extreme variation from either the Anasazi group or the Dos Casas Subphase data.

Table 7.B.1 Lithic Analysis Data Summary for Casa Bodega Hamlet, Flaked Lithic Tools (Page 1 of 2)

	Total Surface Collection (N = 17)		Pithouse 1					
			Fill Above Roof Fall (N = 6)		Roof Fall (N = 4)		Floor (N = 22)	
	#	%	#	%	#	%	#	%
MORPHO-USE FORM								
Indeterminate								
Utilized flakes	12	70.6	2	33.3	1	25.0	2	9.1
Cores	1	5.9	3	50.0	2	50.0	12	54.5
Choppers, Scraper planes	1	5.9					1	4.5
Thick scrapers								
Thin scrapers	1	5.9	1	16.7			4	18.2
Bifaces							1	4.5
Projectile points					1	25.0	1	4.5
Specialized forms	2	11.8					1	4.5
THINNING STAGE: DORSAL								
Indeterminate								
Nonfacial item	1	5.9	3	50.0	2	50.0	12	54.5
Unthinned item, w/cortex	3	17.6	2	33.3			4	18.2
Unthinned item, no cortex	13	76.5	1	16.7	1	25.0	5	22.7
Prelim shaping, w/cortex								
Prelim shaping, no cortex								
Primary thinning								
Secondary thinning								
Well-shaped								
Highly stylized					1	25.0	1	4.5
THINNING STAGE: VENTRAL								
Indeterminate								
Nonfacial item	1	5.9	3	50.0	2	50.0	12	54.5
Unthinned item, w/cortex	1	5.9					1	4.5
Unthinned item, no cortex	14	82.4	3	50.0	1	25.0	8	36.4
Prelim shaping, w/ cortex								
Prelim shaping, no cortex	1	5.9						
Primary thinning								
Secondary thinning								
Well-shaped								
Highly stylized					1	25.0	1	4.5
GRAIN SIZE								
Medium (coarse)			1	16.7			1	4.5
Fine	1	5.9					2	9.1
Very Fine (detrital)	10	58.8	4	66.6	3	75.0	15	68.2
Microscopic (nongranular)	6	35.3	1	16.7	1	25.0	4	18.2

Table 7.B.1 Lithic Analysis Data Summary for Casa Bodega Hamlet, Flaked Lithic Tools (Page 2 of 2)

	All Other Excavated Units (N = 45)		Total Site 5MT2914 (N = 94)		Dos Casas Subphase 5MT2193, 5MT2854, & 5MT4644 (N = 1968)	Anasazi Group (N = 7048)
	#	%	#	%	%	%
MORPHO-USE FORM						
Indeterminate					0.6	0.5
Utilized flakes	12	26.7	29	30.9	33.6	43.6
Cores	8	17.8	26	27.7	26.4	19.0
Choppers, Scraper planes	9	20.0	11	11.7	9.7	10.4
Thick scrapers	1	2.2	1	1.1	9.2	6.4
Thin scrapers	5	11.1	11	11.7	8.9	10.1
Bifaces	2	4.4	3	3.2	5.5	3.9
Projectile points	4	8.9	6	6.4	4.1	3.7
Specialized forms	4	8.9	7	7.4	2.1	2.3
THINNING STAGE: DORSAL						
Indeterminate					0.4	0.3
Nonfacial item	10	22.2	28	29.8	27.4	19.8
Unthinned item, w/cortex	15	33.3	24	25.5	25.8	31.7
Unthinned item, no cortex	15	33.3	35	37.2	31.9	31.4
Prelim shaping, w/cortex	1	2.2	1	1.1	3.0	3.7
Prelim shaping, no cortex					2.3	2.6
Primary thinning					1.5	1.2
Secondary thinning					1.1	1.1
Well-shaped	2	4.4	2	2.1	6.0	7.5
Highly stylized	2	4.4	4	4.3	0.5	0.7
THINNING STAGE: VENTRAL						
Indeterminate					0.4	0.2
Nonfacial item	10	22.2	28	29.8	27.2	19.5
Unthinned item, w/cortex	1	2.2	3	3.2	2.0	1.9
Unthinned item, no cortex	29	64.4	55	58.5	58.0	64.4
Prelim shaping, w/ cortex					1.1	1.4
Prelim shaping, no cortex	1	2.2	2	2.1	3.2	3.4
Primary thinning					1.5	1.2
Secondary thinning					1.3	1.0
Well-shaped	2	4.4	2	2.1	4.7	6.4
Highly stylized	2	4.4	4	4.3	0.5	0.7
GRAIN SIZE						
Medium (coarse)			2	2.1	1.7	2.1
Fine	3	6.7	6	6.4	7.4	6.2
Very Fine (detrital)	36	80.0	68	72.3	69.9	65.3
Microscopic (nongranular)	6	13.3	18	19.1	21.0	26.3

Table 7.B.2 Lithic Analysis Data Summary for Casa Bodega Hamlet, Flaked Lithic Debitage (Page 1 of 2)

	Total Surface Collection N = 127		Pithouse 1						Other Excavated Units N = 308	
			Fill Above Roof Fall N = 61		Roof Fall N = 8		Floor N = 83			
	#	%	#	%	#	%	#	%	#	%
GRAIN SIZE										
Medium (coarse)			2	3.3			2	2.4	11	3.6
Fine	52	40.9	17	27.9			5	6.0	50	16.2
Very Fine (detrital)	55	43.3	38	62.3	4	50.0	61	73.5	184	59.7
Microscopic (nongranular)	20	15.7	4	6.6	4	50.0	15	18.1	63	20.5
Items w/ Cortex, %	34	26.8	20	32.9	1	12.5	10	12.0	78	25.3
Items w/ Platform, %	47	37.0	31	50.8	1	12.5	43	51.8	116	37.7
Mean Weight (grams)	7.9		11.5		6.8		8.6		12.4	

Table 7.B.2 Lithic Analysis Data Summary for Casa Bodega Hamlet, Flaked Lithic Debitage (Page 2 of 2)

	Total Site 5MT2194 (N = 587)		Dos Casas Subphase 5MT2193, 5MT2854, & 5MT4644 (N = 14,499)	Anasazi Group (N = 66,095)
	#	%	%	%
GRAIN SIZE				
Medium (coarse)	15	2.6	4.3	3.2
Fine	124	21.1	13.5	21.4
Very Fine (detrital)	342	58.3	53.3	51.6
Microscopic (nongranular)	106	18.1	28.9	23.7
Items with Cortex, %	143	24.4	23.0	25.9
Items with Platform, %	238	40.5	43.0	38.8
Mean Weight (grams)	10.5		8.61	7.9

Table 7.B.3 Lithic Analysis Data Summary for Casa Bodega Hamlet, Nonflaked Lithic Tools (Page 1 of 2)

	Surface Collection (N = 8)		Pithouse 1					
			Fill Above Roof Fall (N = 13)		Roof Fall (N = 3)		Floor (N = 14)	
	#	%	#	%	#	%	#	%
MORPHO-USE FORM								
Indeterminate	1	12.5					1	7.1
Generalized, unhafted	3	37.5	2	15.4			3	21.4
Hammerstones	2	25.0					1	7.1
Manos	1	12.5	5	38.5			5	35.7
Slab Metates			2	15.4				
Trough Metates	1	12.5	2	15.4	1	33.3		
Unspec. & Frag Metates			2	15.4	2	66.7	3	21.4
Generalized, hafted								
Misc Specialized							1	7.1
PRODUCTION EVALUATION								
Indeterminate	1	12.5						
Nodule	4	50.0	3	23.1			8	57.1
Minimally Shaped	1	12.5	8	61.5	2	66.7	2	14.3
Well-shaped	2	25.0	2	15.4			4	28.6
Highly Stylized					1	33.3		
ITEM COMPLETENESS								
Indeterminate								
Small Fragment								
Partial Implement	6	75.0	10	76.9	3	100	2	14.3
Complete (+ or -) Implement	2	25.0	3	23.1			12	85.7
GRAIN SIZE								
Indeterminate			1	7.7				
Coarse	3	37 5					4	28.6
Medium	1	12.5	6	46.2	2	66.7	6	42.9
Fine	2	25.0	6	46.2	1	33.3	4	28.6
Nongranular	2	25.0						

Table 7.B.3 Lithic Analysis Data Summary for Casa Bodega Hamlet, Nonflaked Lithic Tools (Page 2 of 2)

	All Other Excavated Units (N = 18)		Total Site 5MT2194 (N = 63)		Dos Casas Subphase 5MT2193, 5MT2954, & 5MT4644 (N = 908)	Anasazi Group (N = 4318)
	#	%	#	%	%	%
MORPHO-USE FORM						
Indeterminate	1	40.0	3	4.8	16.1	9.2
Generalized, unhafted	16	64.0	24	38.1	30.3	24.0
Hammerstones	2	8.0	5	7.9	7.8	9.9
Manos	3	12.0	14	22.2	27.4	33.5
Slab Metates	2	8.0	4	6.3	2.0	2.1
Trough Metates			4	6.3	3.8	9.4
Unspecified & Frag Metates			7	11.1	7.4	5.2
Generalized, hafted					2.3	2.5
Miscellaneous Specialized	1	4.0			0.3	4.0
PRODUCTION EVALUATION						
Indeterminate	0		1	1.7	13.0	8.4
Module	19	76.0	34	54.0	62.5	53.5
Minimally Shaped	4	16.0	17	27.0	18.8	16.7
Well-shaped	2	8.0	10	15.9	5.7	21.1
Highly stylized			1	1.6	0.1	0.1
ITEM COMPLETENESS						
Indeterminate					0.2	0.9
Small Fragment					6.3	3.3
Partial Implement	11	44.0	32	50.8	40.6	45.6
Complete (+ or -) Implement	14	56.0	31	49.2	52.9	50.8
GRAIN SIZE						
Indeterminate			1	1.6	10.4	8.1
Coarse	2	8.0	9	14.3	16.3	16.5
Medium	8	32.0	23	36.5	22.4	39.4
Fine	15	60.0	28	44.4	49.4	34.5
Nongranular			2	3.2	1.5	1.2

APPENDIX C

FAUNAL REMAINS FROM CASA BODEGA HAMLET

by

Steven D. Emslie

This report includes analysis of faunal remains recovered from Site 5MT2194 during the 1979 field season. All material was collected during excavation with one-quarter-inch mesh screens.

Faunal remains were identified using modern comparative skeletons collected in the D.A.P. region. All bones were identified to species when possible or to other taxonomic categories. Bones of the cottontail, Sylvilagus sp., were identified only to genus as several species occur in the D.A.P. region which are not osteologically distinct.

Minimum number of individuals (MNI's) for each species or taxon represented in the entire site collection were calculated by counting the most numerous element of the same side of the body.

A total of 70 bones representing 6 species and 14 taxonomic categories, were identified from the site (Table 7.C.1). The majority of the bones were unidentifiable mammal, followed by cottontail, marmot, mule deer, bighorn sheep, Indian dog, jackrabbit, rodent, prairie dog, and Artiodactyla. Identifications of worked bone, point locations of bone, and bone displaying cut marks are provided in Tables 7.C.2, 7.C.3, and 7.C.4, respectively.

The relatively small faunal collection from Site 5MT2194 allows few interpretations. Rabbit and rodent bones may be intrusive in the site, as these species are common in the D.A.P. region and prefer areas of deep light soil. However these animals commonly occur in archaeological sites in the Southwest and their use as food and for skins by modern tribes is known (Cushing [23]). These species are also highly attracted to agricultural areas and their presence near prehistoric fields would allow the Indians to consistently snare and trap them.

The Indian dog was one of two domesticated species of animals kept by the Anasazi. Its presence in the site may indicate it was kept as a domesticate at Site 5MT2194 and these isolated bones may evince that it was eaten. Remains of the mule deer and bighorn sheep at this site indicate these animals were valued for use of their bones in tool manufacture and probably for food. These species are or were common in the D.A.P. area historically and are widely used by modern tribes for food. One bird bone from this site has been identified to the order Falconiformes and is an unidentifiable hawk bone.

Unfortunately, the relatively small size of the faunal assemblage from this site allows few ecological or cultural interpretations. All identified species, with the exception of the Indian dog, commonly occur or have historically occurred in the D.A.P. region. Comparison of this site with other sites in the area, once all analyses are complete, may reveal further information on prehistoric faunal utilization at Site 5MT2194.

Table 7.C.1 Faunal Taxa Identified at Casa Bodega Hamlet

TAXON	NO. OF BONES	MNI*
Mammalia, large	4	
Mammalia	21	
Mammalia, small	21	
Black-tailed jackrabbit (*Lepus californicus*)	1	1
Cottontail (*Sylvilagus* sp.)	7	1
Rodentia	1	
Sciuridae	1	
Yellow-bellied marmot (*Marmota flaviventris*)	4	1
Gunnison's prairie dog (*Cynomys gunnisoni*)	1	1
Indian dog (*Canis familiaris*)	2	1
Artiodactyla	1	
Mule deer (*Odocoileus hemionus*)	3	1
Bighorn sheep (*Ovis canadensis*)	2	1
Falconiformes	1	

*MNI - Minimum number of individuals

Table 7.C.2 Worked Bone Identified at Casa Bodega Hamlet

FS/Cat.	PL	Taxon	Element
211-02-1		Ovis canadensis	Metacarpal, distal half, split w/ cuts
294-01-1		Mammalia, large	long bone shaft fragment
301-02-1		Odocoileus hemionus	Metatarsal, split w/ proximal end fragmented
304-02-1		Ovis canadensis	Metacarpal, distal quarter, split
309-02-1,	PL 8	Odocoileus hemionus	Metacarpal, split w/ proximal end fragmented
309-02-2,	PL 90	Odocoileus hemionus	Metacarpal, distal epiphysis which articulates w/ 309-02-1, PL 8

Table 7.C.3 Point Locations of Bone Identified at Casa Bodega Hamlet

FS/Cat.	PL	Taxon	Element
309-02-1,	PL 8	Odocoileus hemionus	Metacarpal, split w/ proximal end fragmented
309-02-2,	PL 90	Odocoileus hemionus	Metacarpal, distal epiphysis which articulates w/ 309-02-1, PL 8
319-02-1,	PL 256	Lepus californicus	Left femur, medial

Table 7.C.4 Bone with Cut Marks Identified at Casa Bodega Hamlet

FS/Cat.	Taxon	Element
211-02-1	Ovis canadensis	Metacarpal, distal half, split w/ one perpendicular cut on distal posterior shaft and one on lateral shaft

APPENDIX D

POLLEN REPORT FOR CASA BODEGA HAMLET

by

Linda J. Scott

Pollen samples were collected at various D.A.P. sites to obtain information concerning the prehistoric environment and potential economic resources used by the prehistoric peoples. Discussion of the methodology involved and intersite comparisons are presented in the Pollen Administrative Report (Scott [24]). Not all the pollen recovered is discussed in detail in that report, but mention is made of the various types and the entire pollen record is graphically represented.

Nine pollen samples were selected for analysis from Pithouse 1 at Site 5MT2194. Most of the samples are from the floor. Samples were also analyzed from the fill of the sipapu and from a metate in the central hearth (Table 7.D.1). The metate was noted to be lying directly on the coping around the hearth and had been pressed into the coping, evidently by roof collapse (G. Brown, personal communication). The metate was sampled in the laboratory by removing a part of the fill as a control (Sample 25), then taking a wash of the grinding surface of the metate (Sample 26). Unfortunately, the metate wash did not yield pollen and the metate fill contained only small amounts of very poorly preserved pollen.

Most of the pollen samples taken from the floor of Pithouse 1 contained very little pollen. No economic pollen types were observed in any of the floor samples not containing sufficient pollen to count. Two of the floor samples, however, did yield sufficient pollen for analysis. All of the pollen samples analyzed from this site (two floor samples and the sipapu sample) contained large quantities of Artemisia pollen, which is typical of all of the pollen analyses of material from archaeological sites on Sagehen Flats.

Pollen Sample 22, taken in Pithouse 1 between the south wall and the southeast edge of the hearth, contains more arboreal pollen than do either

of the other samples. This sample, however, contains no evidence of economically important pollen types.

Pollen Sample 14 was taken in the northwest corner of Pithouse 1 near the posthole. This sample contained small quantities of many different pollen types, in addition to the large frequency of Artemisia pollen. Several pollen types representing plants with documented economic importance in the Southwest were noted; these include Cleome, Ephedra, Eriogonum, possible Solanum, and Portulaca (Whiting [25], Robbins et al. [26], Stevenson [27]). Ephedra pollen is readily transported by the wind, and its presence may represent wind transportation of the pollen rather than utilization of the plant.

Pollen Sample 23 was taken from the fill of the sipapu. This sample did not contain the variety of pollen types exhibited in Sample 14, from the floor, but did contain the largest quantity of high-spined Compositae in the pitstructure. In addition to the rather large quantity of high-spined Compositae pollen, the sipapu sample contained Cleome pollen.

Economic pollen was noted in the floor sample from the northwest corner of this structure, as well as from the sipapu. Economic pollen types observed in this pitstructure include: Cleome, Eriogonum, cf. Solanum, Portulaca, and may also include Ephedra and high-spined Compositae. No economic pollen was noted in the pollen sample taken near the south wall of the pitstructure.

Table 7.D.1 Provenience of Pollen Samples from Pithouse 1, Casa Bodega Hamlet

Pollen Sample No	Provenience	Total Pollen Count
14	Floor, northwest quarter	200
16	Floor, northeast quarter	Insufficient pollen
17	Floor, northeast quarter	Insufficient pollen
18	Floor, northeast quarter	Insufficient pollen
21	Floor, southwest quarter	Insufficient pollen
22	Floor, southeast quarter	100
23	Sipapu fill	200
25	Metate fill	Insufficient pollen
26	Metate wash	Insufficient pollen

APPENDIX E

ARCHAEOMAGNETIC RESULTS FROM CASA BODEGA HAMLET

by

J. Holly Hathaway

Archaeomagnetism is based on the fact that burned matrices often record the direction of the earth's magnetic field at the time of incineration for that location. By comparing that information with dated magnetic poles included in the master curve of the Southwest (DuBois [28]) the orientation in cultural contexts may be relatively dated. For a complete discussion of laboratory and field methods employed by the D.A.P., as well as an evaluation of the applicability of the current Southwest master curve to the Dolores area, see Hathaway and Eighmy [29].

Sampling and Methods

Casa Bodega Hamlet is located at 37.58° north latitude and 251.48° east longitude in the Sagehen Flats Locality of the Dolores valley. One sample was collected from the site during the 1979 field season. Sample 1 was collected from the central hearth (Feature 24), in Pithouse 1. Twelve specimens were collected for the sample. Each specimen (an estimated volume of 3.4 cm^3) was encased in a 2.5 cm plaster cube (15.6 cm^3). The orientation of each specimen was maintained by leveling the cube and measuring the magnetic declination of one cube side. To control for current magnetic declination the North Star was sighted on 2 September 1978. The average observed magnetic declination was 13.5°, one-half degree different than the U.S.G.S. 1965 Geological Map, and in substantial agreement with expected values estimated from the National Oceanic and Atmospheric Administration Map "Magnetic Declination in the United States - Epoch 1975.0.0."

Laboratory Results

Results from Sample 1 are recorded in Table 7.E.1. The sample was

Table 7.E.1 Archaeomagnetic Results from Casa Bodega Hamlet

ARCHAEOMAGNETIC DESIGNATION	SAMPLE 1
Feature and Provenience	Feature 24, Pithouse 1, Surface 1
Specimens used in final analysis/total collected	12/12
Degauss level	100 oersted
Mean Inclination	50.06
Mean Declination	358.33
Mean Intensity	0.128 by 10^{-4}
Mean Sample Vector	11.61
Precision Parameter (k)	27.95
Alpha 95	8.36
Paleolatitude	83.12
Paleolongitude	83.56
Error along great circle (EP)	7.47
Error perpendicular to great circle (EM)	11.17

demagnetized (Degaussed) at 100 oersteds. Demagnetization is a laboratory process used to eliminate effects in a specimen from secondary components such as viscous or low temperature theromoremanent magnetizations.

The sample was not plotted on the Southwest master curve due to a large alpha 95 value. Alpha 95 is defined as the radius of a circle centered on the observed mean direction within which the true mean will fall 95 percent of the time. Small values indicate tight clustering about the mean. A good archaeomagnetic sample is defined by alpha 95 values of less than 3.5°. Two other tests of reliability were calculated for the sample, the precision parameter and the mean sample vector. The precision parameter is estimated by Fisherian statistics and values increase geometrically with internal consistency. The mean sample vector indicates internal consistency as the value approaches the number of specimens used for determination of the mean. Error along the great circle (EP) and perpendicular to the great circle (EM) are functions of the alpha 95, which has an oval distribution when plotted, with a short axis which runs along the great circle between the collecting site and the paleopole. The long axis is perpendicular to the short axis; both are centered on the paleopole.

A hydrometer test conducted in soils collected from Feature 24 by the Colorado State University Soil Laboratory (Fort Collins, Colorado) indicates a ratio of 41 percent sand, 28 percent silt, and 31 percent clay and categorized it as a clay. Clays and clay-based soils are optimum for recording and retaining the ancient magnetic pole positions. Sand is less conductive to good archaeomagnetic results due to the size of the particles. The presence of clay is but one characteristic necessary for the production of good archaeomagnetic results. The firing atmosphere,

maximum attained temperatures, type of affected ferrous mineral, and amount of intrusive material all contribute to the resultant thermoremanent magnetization.

APPENDIX F

MACROBOTANICAL REMAINS FROM CASA BODEGA HAMLET

by

Bruce F. Benz

Collection of bulk soil and macrobotanical materials from Site 5MT2194 followed previously established sampling guidelines (Litzinger [14]). Bulk soil samples were removed from features and cultural surfaces; additional samples were taken in vertical and horizontal proximity as control samples. These associated samples are analogous to experimental controls in that they provide a basis for isolating plant remains which most aptly represent direct evidence of cultural-environmental interaction. The analysis of bulk soil control samples allow the factoring out of possible intrusive materials and discussion of the plausible alternatives for the presence of noncharred plant parts.

Nine bulk soil samples and three vegetal (macrobotanical specimens) have cleared preliminary analysis. Results of this analysis are presented in Table 7.F.1. One bulk soil sample produced no identifiable plant material and is not represented in Table 7.F.1. Analysis retrieved and identified plant parts which represent twelve vascular plant families. In most cases, only generic determinations have been made.

Seeds or fruits of five genera (Amaranthus sp., Helianthus sp., Polygonum sp., Nicotiana sp., and Verbena sp.) were recovered from bulk soil samples in a noncharred condition. Four of these genera are weedy plants which are commonly associated with disturbed lands (e.g., cultivated fields, roadsides). The presence of these remains in cultural contexts makes interpretation difficult. Enquiries about the presence of noncharred plant parts in archaeological contexts have lead some investigators to suggest that they are intrusive due to rodents, insects, or archaeologists, are airborne contaminants, or are present because of pedoturbation during archaeological site formation (Nelson [30], Keepax [31], Minnis [32]). On the other hand, the presence of these seeds/fruits

may be a result of the cultural occupation; that is they are indirect evidence of human activities.

Plant parts of ten genera were retrieved from bulk soil samples in a charred condition. Fortunately, only one of ten genera occur in both charred and noncharred conditions, i.e., Polygonum sp., and Physalis sp. although occurring in relatively low frequency, might represent use of weedy plants for food. These genera are commonly recovered from archaeological sites in the southwest (Bohrer et al. [33]). These plants commonly occupy humanly disturbed habitats today and could be expected to occupy similar habitats about prehistoric habitations.

Plant parts recovered from Feature 1 seem to support the contention that this feature functioned as a hearth. Charred Artemisia sp. wood and corn cob fragments (Zea mays) suggest that these resources were used as fuel. Ruderal plant seeds (Portulaca sp. and Physalis sp.) were also recovered from the fill of this feature and may indicate these plants were being processed here.

The botanical contents of Feature 2 are very similar to that of Feature 1. The cooccurrence of the four above-mentioned genera in Features 1 and 2 and their spatial proximity tend to support the suggestion that these two features functioned together. The presence of two noncharred grass fruits, noncharred Helianthus sp. fruit, one noncharred Cruciferae, and a single noncharred Verbena sp. fruit is probably related to the features being near the modern ground surface; they are probably all intrusive.

Floral remains recovered from Feature 8 were all present in a charred condition. Although extensively disturbed by rodents, Feature 8 produced a variety of plant remains which might reflect refuse from food processing

at some other locus.

The occurrence of much charred material in the sipapu (Feature 17), is somewhat anomalous. Suspecting a ceremonial function for this feature, one would not expect such a range of charred material. The fill assemblage type recorded for this feature is purportedly "clean fill." However, it contains such a variety of charred wood that "clean" probably was used because much of the material could not be seen during excavation. The medium brown sand present in this feature contained a large number of tobacco (Nicotiana sp.) seeds. The quantity of tobacco seeds present in this feature may support the inference that it functioned ceremonially. However, in discussing the contents of the next two features it should be evident that the tobacco seeds are probably not direct evidence of cultural use.

Feature 18 contained charred remains of corn and Portulaca sp. Since the fill of this feature is very similar to that of Feature 17, the cooccurrence of corn, Portulaca sp. and Nicotiana sp. in both features is not surprising. The botanical contents of this feature neither supports nor refutes the proposed function of the feature.

Botanical remains recovered form Feature 24 support the inference that this feature was a part of food processing and/or heating activities that took place in this pitstructure. Various trees and shrubs, (Pinus sp., Populus sp., Artemisia sp., Rosaceae family shrub) could have supplied the inhabitants with wood for fuel. The charred seeds/fruits of Portulaca sp. and various grasses could have been a part of an accidentally burned meal or used to start the fire. The occurrence of noncharred Nicotiana sp. seeds within this feature are again difficult to interpret.

Nicotiana sp. seeds occur in the fill deposits of three features (17, 18, and 24) and from the fill of the pitstructure. The fill of the pitstructure was sampled for bulk soil as a means of "factoring-out" any intrusive materials. Without considering the cultural practices dealing with the aforementioned features, it is possible to dismiss the presence of tobacco as simply intrusive. However, Feature 18 had been plastered-over prior to the abandonment of the site and the contents of this feature produced a number of tobacco seeds. This would tend to suggest that the tobacco seeds had been introduced into these features prior to abandonment. The fill deposits of these features seem to provide a means of interpreting the occurrence of tobacco seeds. The medium brown sand noted in Feature 17 was also noted in Feature 18 and may have been present in Feature 24 in limited quantitiy. It is possible that the tobacco seeds were present in this sand, and were introduced into the features with this sand. The suspected origin of this sand could be from the eroded bedrock outcrops on the dip slope surrounding this site. Nicotiana sp. is a plant which commonly colonizes open disturbed lands. If established, this plant can produce seed in great quantities. Consequently, if this plant had established itself on these eroded sand deposits, and if this sand was gathered by the inhabitants, the presence of tobacco seeds could not be considered evidence of its use but the use of the sand as a resource instead.

Analysis of botanical material from Site 5MT2194 suggests that the inhabitants used a variety of trees and shrubs for fuel, possibly consumed the ruderal plants which colonized the disturbed areas about their habitations, and inadvertently gathered the seeds of Nicotina sp. while obtaining sediment to aid in construction.

Table 7.F.1 Plant Remains Recovered from Casa Bodega Hamlet (Page 1 of 2)

TAXON	FS 207 FEAT 1 BS 1	FS 208 FEAT 2 BS 2 VEGETAL	FS 293 FEAT 8 BS 30	FS 298 BS 26	FS 334 FEAT 18 BS 79	FS 335 FEAT 17 BS 81	FS 344 FEAT 24 BS 94	FS 346 BS 90	FS 280 VEGETAL	FS 285 VEGETAL
Amaranthaceae										
Amaranthus sp.										
Seed	2/N					1/N				
Chenopodiaceae										
Chenopodium sp.										
Fruit			1/C		1/C		1/C			
Cheno-ams										
Fruit			1/C							
Compositae										
Artemisia sp.										
Fruit			1/C					1/C		
Wood	X/C	X/C	X/C	X/C		X/C	X/C			
Helianthus sp.										
Fruit		1/N								
Crucifereae										
Seed	1/N									
Cyperaceae										
Fruit Type 1	2/C									
Fruit Type 2	2/C									
Dicotyledoneae										
Wood		X/C	X/C	X/C						
Gramineae										
Zea mays										
Kernel									4/C	1/C
Cob	X/C	X/C								
Cupule	X/C	X/C	X/C	X/C						
Indeterminate										
Fruits	3/C		2/C				1/C			
Gymnospermae										
Wood				X/C						
Loasaceae										
Mentzelia sp.										
Seed							1/C			
Pinaceae										
Pinus sp.										
Wood			X/C			X/C	X/C			

See following page for additional contents of these samples.

Table 7.F.1 Plant Remains Recovered from Casa Bodega Hamlet (Page 2 of 2)

TAXON (continued)	FS 207 FEAT 1 BS 1	FS 208 FEAT 2 BS 2 VEGETAL	FS 293 FEAT 8 BS 30	FS 298 BS 26	FS 334 FEAT 18 BS 79	FS 335 FEAT 17 BS 81	FS 344 FEAT 24 BS 94	FS 346 BS 90	FS 280 VEGETAL	FS 285 VEGETAL
Polygonaceae										
Polygonum sp.										
Fruit						1/N				
Portulacaeae										
Portulaca sp.										
Seed	1/C	1/C	6/C		1/C					
Rosaceae										
Cercocarpus sp.										
Wood			X/C							
Indeterminate										
Wood							X/C			
Salicaceae										
Populus sp.										
Wood			X/C			X/C	X/C		X/C	
Solanaceae										
Physalis sp.										
Seed	8/C									
Nicotiana sp.										
Seed				25/N	13/N	75/N	3/N			
Verbenaceae										
Verbena sp.										
Fruit		1/N	1/C							
Indeterminate										
Fruit							X/C			
Seed	X/C	X/C	X/C	X/C	X/C					
Wood										

1/ - Number of reproductive plant parts present
X/ - Nonreproductive plant parts present
/C - Plant part charred
/N - Plant part noncharred

FS - Field Provenience Unit
FEAT - Feature
BS - Bulk Soil

REFERENCES

[1] Breternitz, David A. and Daniel W. Martin 1973. Report of the Dolores River Project archaeological reconnaissance, 1972-1973. Ms. on file, Midwest Archaeological Center, National Park Service, Lincoln, Nebraska.

[2] Kane, Allen E. 1980. Introduction to field investigations and analysis. In Field investigations: 1978. Dolores Archaeological Program Technical Reports I(1). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[3] Kane, Allen E. 1979. Sagehen Flats Archaeological Locality. In Field investigations: 1978. Dolores Archaeological Program Technical Reports I(3). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[4] Leonhardy, Frank C. 1979. Reconnaissance soils map of the Dolores Archaeological Project area. Ms. on file, Bureau of Reclamation, Upper Colo. Region, Salt Lake City.

[5] Leonhardy, Frank C. 1981. Geology of the Dolores Project area. In Laboratory analysis: 1979. Dolores Archaeological Program Technical Reports VI(9). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[6] Bye, Robert A., Jr. 1981. Environmental studies report. In Laboratory analysis: 1979. Dolores Archaeological Program Technical Reports VI(6). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[7] Emslie, Steven D. 1981. Faunal studies - 1979. In Laboratory analysis: 1979. Dolores Archaeological Program Technical Reports VI(7). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[8] Greenwald, David H. 1981. Sagehen Flats Locality. In Field investigations: Sagehen Flats Locality, 1979. Dolores Archaeological Program Technical Reports V(1). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[9] Huggins, Robert J. and John Weymouth 1980. Magnetometer results. In Laboratory analysis: 1978. Dolores Archaeological Program Technical Reports II(7). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[10] Brisbin, Joel M., Alice M. Emerson, and Sarah H. Schlanger 1981. Excavations at Dos Casas Hamlet (Site 5MT2193), a Basketmaker III/Pueblo I habitation site. In Field investigations: Sagehen Flats Locality, 1979. Dolores Archaeological Program Technical Reports V(5). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[11] Hewitt, Nancy J. 1980. Excavations at Sagehill Hamlet (Site 5MT2198), a Basketmaker III/Pueblo I habitation site. In Field invesitgations: 1978. Dolores Archaeological Program Technical Reports I(5). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[12] Kohler, Timothy A. 1979. Probability samples. Ms. on file, Dolores Archaeological Program, Dolores, Colorado.

[13] Kane, Allen E., Nancy J. Hewitt, Joel M. Brisbin, Patrick Hogan, Gary A. Brown, Steven D. Emslie, J. Holly Hathaway, Frank C. Leonhardy, William A. Lucius, and Roger A. Moore 1980. Field manual. In Field investigations: 1978. Dolores Archaeological Program Technical Reports I(11). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[14] Litzinger, William 1980. Botanical studies. In Laboratory analysis: 1978. First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[15] Hewitt, Nancy J., Allen E. Kane, Arthur Rohr, and Dorin Steele 1980. Temporal implications of architectural characteristics of Anasazi pitstructures, southwestern Colorado. Paper in progress for presentation at the 46th Annual Meeting of the Society for American Archaeology, San Diego, California.

[16] Bullard, William R. 1962. The Cerro Colorado site and pithouse architecture in the southwest U.S. prior to AD 900. Papers of the Peabody Museum of Archaeology and Ethnology 44(2).

[17] Lucius, William A. 1981. Additive technologies - 1979. In Laboratory analysis: 1979. Dolores Archaeological Program Technical Reports VI(2). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[18] Lucius, William A. 1978. Dolores Archaeology Program ceramic analysis procedure and justification. Ms. on file, Dolores, Colorado.

[19] Breternitz, David A., Arthur H. Rohn, and Elizabeth A. Morris 1974. Prehistoric ceramics of the Mesa Verde Region. Museum of Northern Arizona Ceramic Series 5.

[20] Guernsey, Samuel James 1931. Explorations in northeastern Arizona: report on the archaeological fieldwork of 1920-1923. Papers of the Peabody Museum of American Archaeology and Ethnology XII.

[21] Amsden, Charles A. 1949. Prehistoric Southwesterners from Basketmaker to Pueblo. Southwest Museum, Los Angeles.

[22] Phagan, Carl J. 1981. Reductive technologies. In Laboratory analysis: 1979. Dolores Archaeological Program Technical Reports VI(3). First draft submitted to the U. S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[23] Cushing, Frank Hamilton 1920. Zuni Breadstuffs. Museum of the American Indian, Heye Foundation Indian Notes and Monographs 8.

[24] Scott, Linda 1981. Pollen analysis - 1979. In Laboratory analysis: 1979. Dolores Archaeological Program Technical Reports VI(8). First draft submitted to the U. S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[25] Whiting, Alfred E. 1939. Ethnobotany of the Hopi. Museum of Northern Arizona Bulletin 15.

[26] Robbins, Wilfred W., John P. Harrington, and Barbara Freire-Marreco 1916. Ethnobotany of the Tewa Indians. Bureau of American Ethnology, Bulletin 55. Smithsonian Institution, Washington, D.C.

[27] Stevenson, Matilda C. 1915. Ethnobotany of the Zuni Indians. Thirteenth Annual report of the Bureau of American Ethnology 1908-1909:31-102.

[28] DuBois, Robert L. 1975. Secular variation in southwestern United States as suggested by archaeomagnetic studies. In Takesi Nagata conference, magnetic field: past and present, edited by R.M. Fischer, H. Fuller, V.A. Schmidt, and P.J. Wasilewski. Goddard Space Fight Center, Greenbelt, Maryland.

[29] Hathaway, J. Holly and Jeffrey L. Eighmy 1981. Archaeomagnetism. In Laboratory analysis: 1979. Dolores Archaeological Program Technical Reports VI(11). First draft submitted to the U.S. Bureau of Reclamation, Upper Colo. Region, Salt Lake City, in compliance with Contract No. 8-07-40-S0562.

[30] Nelson, Shelli 1980. Disturbance of archaeological sites through the activities of Harvester ants. Senior Honor Thesis, Department of Anthropology, University of Colorado, Boulder.

[31] Keepax, Carole 1977. Contamination of archaeological deposits by seeds of modern origin with particular reference to the use of flotation machines. Journal of Archaeological Science 4:221-229.

[32] Minnis, Paul E. 1981. Seeds in archaeological sites: sources and some interpretive problems. American Antiquity 46:143-152.

[33] Bohrer, Vorsila L. 1980. Salmon Ruin ethnobotanical report Part 7. In Investigations at the Salmon Site: the structure of Chacoan Society in the northern southwest, edited by Cynthia Irwin-Williams and Phillip H. Shelley, pp. 163-345. Eastern New Mexico University, Portales.