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COMMENTS:

This is a report from the 1939 excavations at Bc 50 written by Donovan Senter. Includes photographs, drawings, as well as burial/human remain descriptions.

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EXCAVATION REPORT
CHACO CANYON BC-50

SEASON 1939

Setzler Directing

Donovan Senter

Albuquerque, New Mexico
October 15, 1939

I. Introduction

Problem.

"Our greatest need now is more knowledge of the Pueblo I period....," said Guernsey in 1921.¹ This cultural horizon, Early Developmental Pueblo as it is now known, is still relatively poorly known in the Southwest and especially in Chaco Canyon. Roberts' recent publication on the Whitewater District does much to fill the gap for Eastern Arizona and the southern extension of the Chaco complex.² One of the problems of the University of New Mexico Field School for the last four seasons has been the further description of this horizon and its relation to earlier and later periods.³ With the exception of the burial reports, this paper is largely concerned with such a description of the 1939 season's excavation of a part of a Unit Type Village of the Early Developmental Pueblo Horizon. A further study of the wall types of Pueblo I is made.

Review of past seasons' work in Bc50 on Pueblo I, Substructure.

The substructure of Bc50 was partially excavated during the 1936 season and that portion was reported on in the Tseh So Bulletin.⁴ In part II of this report Hibben indicated that he thought that the rooms of the substructure had disintegrated superficially leaving the eroded tops of the substructure walls at the surface of a mound upon which the superstructure had been built. The superstructure walls were in general oriented the same way as the substructure rooms but not superimposed, so that the lines of the structure walls did not coincide exactly with those

¹Guernsey, 1921, p. 113.

²Roberts, 1939.

³Brand, et al., 1937.
Kluckhohn, ed., 1939.

⁴Brand, et al., 1937.

of the lower walls. (See Map 1.) Hawley gave a generalized description of the slab based rubble walls of the substructure. Adobe lumps found in the fill suggested, according to Hibben,¹ "a more nearly wattlework" type of roof construction. One "fire pit" assigned to the substructure was found to the east of Substructure 1 under Superstructure room 4. The floors of Substructure rooms 1, 2, and 3 showed no features of any sort. Sherd analysis of deposits from these rooms revealed a Red Mesa Black on White complex, which is usually considered to represent Pueblo I.

During the 1937 season Glenn excavated Substructure rooms 4, 5, and 6.² (See Map 1.) Most notable in this excavation was the finding of a cist between Substructures 5 and 6 (Plate I) and the location of fire pits and postholes in Substructure 6.

The 1939 season's portion of work described herein was to the north and east of the above described excavations (Plate II, b.)

II. SUBSTRUCTURE 7

Substructure room 7 was the most northern extension of the rooms of the Unit Type Substructure of Bc50. (See Map 1, b.) It was directly north of Substructure room 4 (Plate III, a.) The room was approximately rectangular in plan. The corners were rounded. A pit had been dug into the native earth to form the floor (Fig. 1, a, b.)

This single room showed walls of four different types. The south wall was Slab Base Rubble, the west was Rubble on side of Pit, part of the east was Adobe and part was Slab Lined Pit with Rubble. A complete

¹Brand, et al., 1937.

²Kluckhohn, ed., appendix B, 1939.

study of wall types will be found in part III. The northern end of the room had been so eroded that it was impossible to determine the wall type. The stones of the wall of this end may have been robbed to construct wall in the Pueblo II superstructure. This was not the case with the south wall, however, for it had fallen to the north across the two feet of fill in the room (Plate IV, a; Plate III, b; Map 2, c.) Examination of the base of this wall showed that Substructure 7 had been built later than Substructure 4. The pit for the former was dug north of the north wall of Substructure 4 so that the north wall of Substructure 4 formed the south wall of Substructure 7 (Plate IV, b,) and the plaster of the floor of Substructure 7 was continuous with that of the wall. A cross-section of this wall (Plate XV, a) showed that originally a slab lining had been made for the pit of Substructure 4. Measuring from the base of the wall in Substructure 4 up and over the fallen part into Substructure 7 gave a figure of nine feet. Making allowance for the throw of the wall in falling of about two feet, one could estimate the original height of the wall as about seven feet.

A pinyon post was included within the adobe of the thick eastern wall. Upon examination by Hawley it was found that the specimen had too short a sequence of rings and consequently yielded no date. The post may have been an additional support for the wall and roof at that point. An alternative explanation may be that it formed the south facing for a door at that point, for within the room on the floor and embedded into it was found a large slab of carbonaceous shale that may well have served as a step for those leaving the room at that point (Map 2,d.)

Substructure 7 had a length of 18 feet, was 7 feet 6 inches wide at the north end, 8 feet wide at the location of the "step" and 7 feet 6 inches wide at the south end. The north wall averages 6 inches thick. It was very eroded, was 15 inches high at the east side and sloped to 6 inches high on the west side. The east wall measured in thickness 6 inches at the north end and 12 inches at the south end of the south vertical slab. The pinyon post in the eastern wall was 6 inches in diameter. The slabs in the northeast corner extended 17 inches above the floor into which they were sunk and were on an average 2 feet wide. (Plate XIV, a.) The south wall averages 2 feet 6 inches high and 12 inches in thickness. The plaster thickness on the north side of this wall averaged 3 inches. The west wall measured 10 inches high on the north end and sloped up to 32 inches on the south where the rubble wall was 14 inches thick. The rocks in this rubble averaged 6 by 6 by 12 inches.

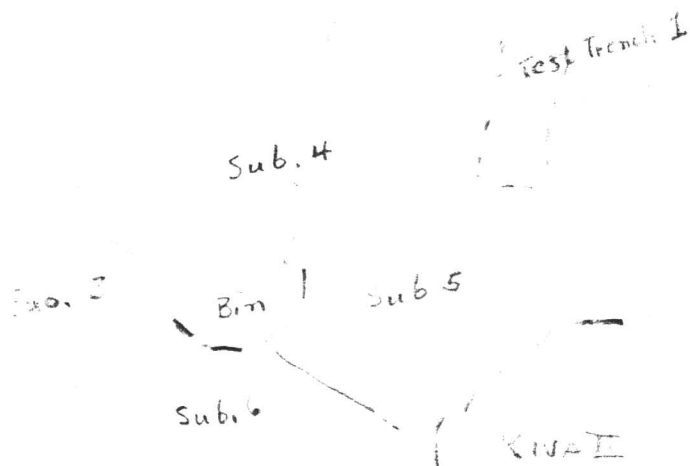
The storage bin at the southeast end of Substructure 7 had inside diameters (reconstructed, since portion of bind had been destroyed by Test Trench #1, 1936) of circa 3 feet from east to west and 5 feet from north to south. The walls averaged 9 inches in thickness and were 21 inches high on the average. The slabs were plastered over. There was no evidence of rubble above the slabs. The bin opened on the plaza but the floor was at the same height as that of Substructure 7.

A stake driven in the floor of Substructure 7 at the south end gave a reading of -.78.

Six hammer stones were found in the fill of the substructure. One mano of triangular cross section appeared in this same fill (Bc50 20/352.)



2. Substructure 4, 5, + 6 showing storage Bin in southwest corner of Substr. 5.
(taken from southeast)

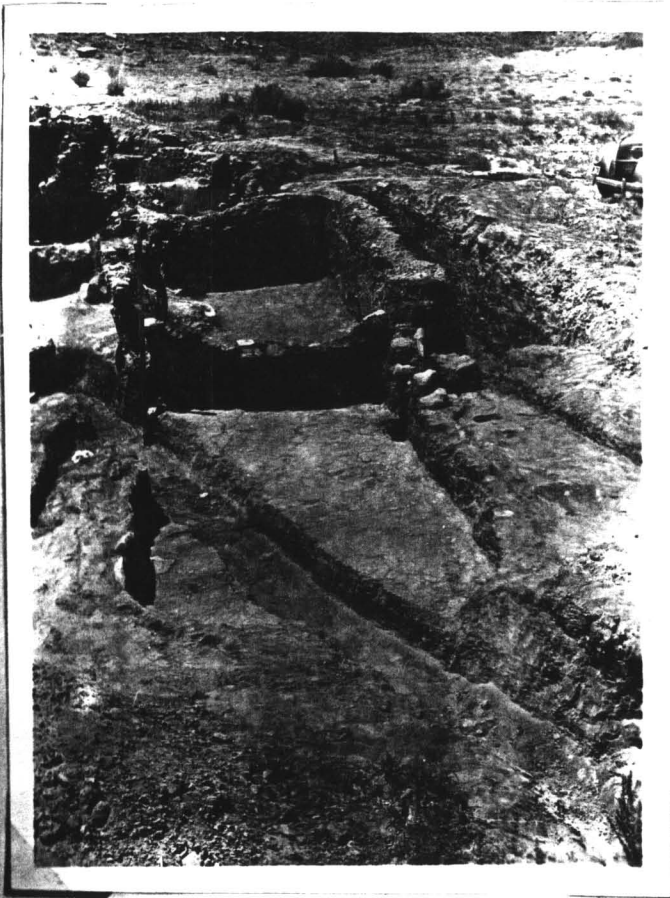




a. Adobe wall, storage bin, post hole at north end of Substructure 5. showing southern extension of Test Trench 1 (1936) and unexcavated Substr. 7 at left. (Looking north)



b. Beginning work on Substructure 7. Strat. block in center. Looking west.

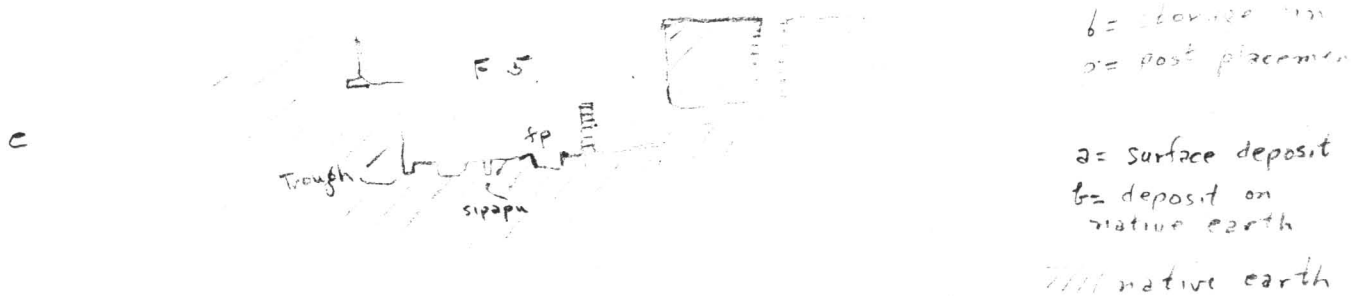
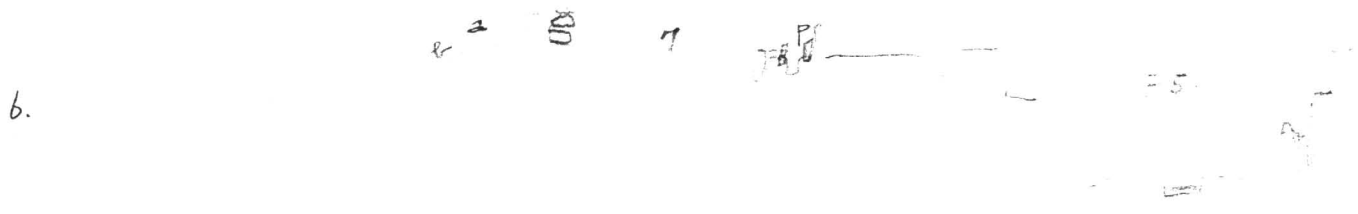


a. Substructure, looking south.
Sub. 7 in foreground cut by
Testtrench. Sub. 4 in
background.

b. Sub. 7, showing
strat. column.
looking from
north-east.



Fig 1 Cross sections of Umb Type Substratum of ECGO





a. Sub. 7, showing south wall and strat column in which appears fallen wall at surface of column.



b. Sub. 7, south wall, showing floor plaster continuous with wall plaster (at left of trowel).

A white quartz arrowpoint 1 3/8 inches long and 11/16 inch wide with side notches was found in the surface soil Stratum 1 (Bc50 22/43.)

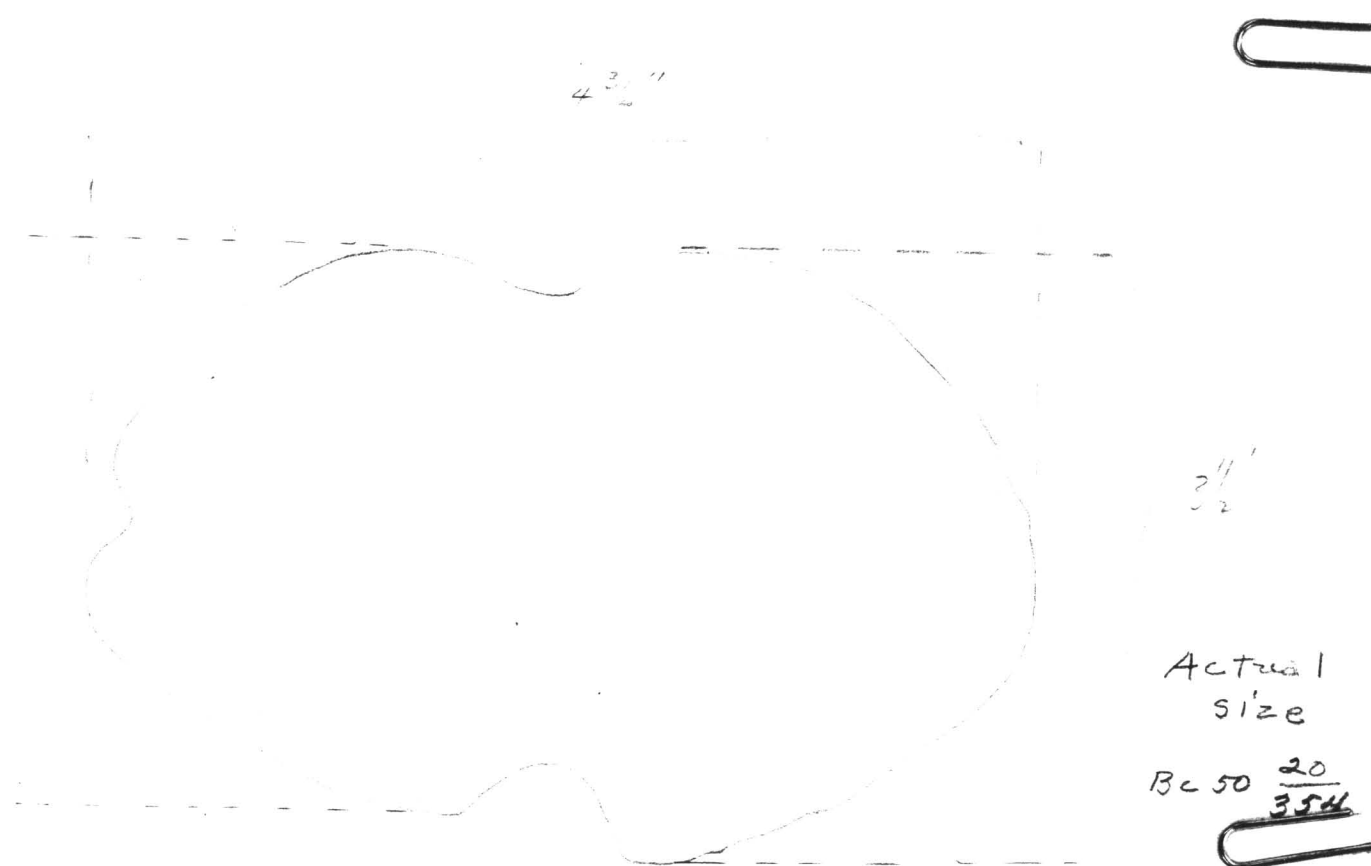


Fig. 2. Grooved Axe with Notched End (Bc50 20/354)

A grooved axe (Fig. 2) with a notched end was found on the floor 3 feet 6 inches from the south wall and 11 inches from the west wall. This particular type of axe is found in the "Modified Basketmaker" horizon in the Ackmen-Lowry Area¹ and in the Chaco Area,² elsewhere than Bc50, in association with Red Mesa Black on White and Kana-a Gray. Hibben³ mentions an end notched axe in the Largo Phase, however, which is quite late in horizon as well as time. His axe is chipped rather than polished, however.

Roberts notes this above type of stone axe from the Piedra District.⁴ "This would facilitate the fastening of the handle and make the lashings more secure." An axe of this same type was found in Nevada by M. R. Harrington⁵ and occasional examples with the same form of end notch have come from other districts of the San Juan.

The fill in Substructure 7 showed considerable variation. At the south end in the stratigraphic column and on to the south wall the two feet up from the floor level consisted of a loose sandy fill with few sherds and other cultural material. Toward the north end this stratum

¹Martin, Field Museum Anthropology Series, vol. 23, p. 409, fig. 114, 1939.

²Dutton, Leyit Kin, U. N. M. Monograph Series, room #8, pl. IX, a.

³Hibben, American Antiquity, vol. 4, no. 2, October, 1938.

⁴Roberts, bul. 96, pl. 47, b, p. 149, 1930.

⁵"On the Trail of the First Pueblos," The Outlook, vol. 145, no. 1, pp. 305-309, 1937.

became thinner. On the floor considerable charcoal and few animal bones were found on the general surface. As mentioned above at the north end the skeleton of a bear (?) and the worked calva of a human skull were found. In the southwest corner an end notched axe was discovered on the floor. (See Fig. 2.)

The upper strata contained more rocks and a more alkaline soil. On the south end in these strata the north wall of Substructure 4 had collapsed to the north. Many of the stones remained in relative place within the fallen wall. In Strata 1 and 2 in the Stratigraphy Column these stones could be seen standing on end with the hardened adobe between them just as they had been in the once vertical room wall.

Following is given the percentages and number of sherds from the room fill, on the floor, and in the stratigraphy column from Substructure 7 (Table I.) The pottery complex is what Hawley calls Red Mesa of Pueblo I times. It is what one would expect to find with the other cultural manifestations of Substructure 7 and associated structures.

Regarding the foregoing pottery analysis of the stratigraphic column in Substructure 7, Hawley says:

"The six 6 inch levels are all consistent in the complex of Pueblo I types with the addition of one sherd of Exuberant corrugated in every level but the lowest and three Escavada Black on White sherds in the second and third levels up from the bottom and one in the bottom level. This area must have been filled in late Pueblo I times, probably not long before the construction of the Pueblo II surface pueblo of Bc50.

TABLE I

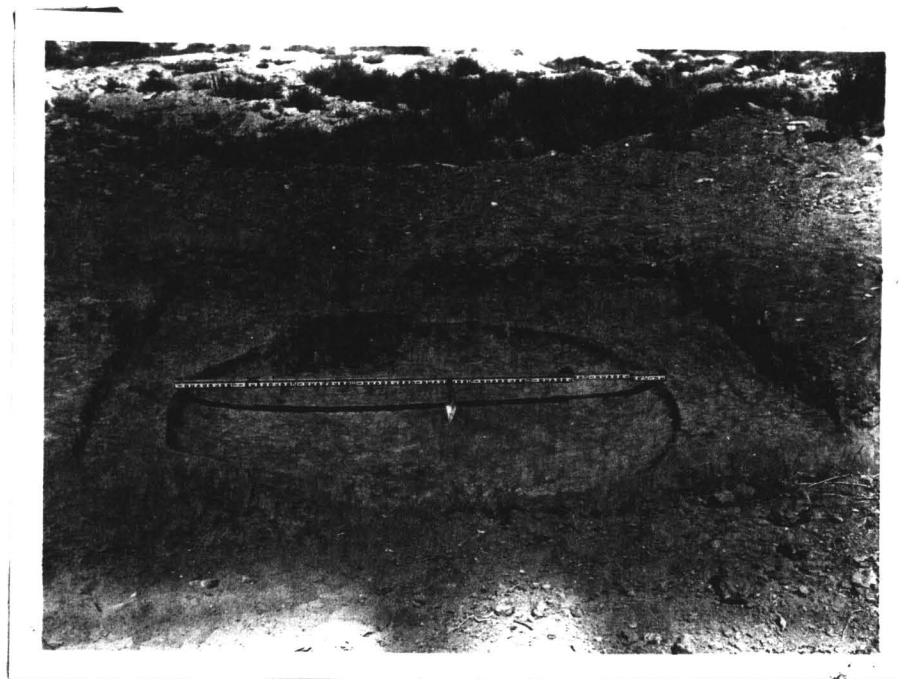
Pottery Identifications for Substructure 7

	* <u>Fill</u>	<u>Floor</u>	^o <u>Level</u> 1	2	3	4	5	6
Lino Gray	32.1	47.8	36.4	20	33.3	38.2	53.3	33.3
Red Mesa B/W	25.3	30.4	45.4	40		32.3	22.2	16.1
Escavada B/W	9.6					8.8	11.1	8.6
Kana-a Gray	6.9	13.4	9.1	20		11.8	22.2	
Gallup B/W	8.5							
Chaco Corr.	4.5							
Exuberant Corr.			9.1	20	33.3	2.9	3.7	
McElmo B/W	2.0							
Chaco B/W	.7							
Kana-a B/W	.3						3.7	
Forestdale Smudged	.3							
Deadman's B/R	.5						3.7	8.6
Medicine B/R	.2							
Tusayan B/R	.2							
Upper Gila Corr.	.2							
La Plata B/W	.2	8.9			33.3	5.9		33.3
No. of sherds	582.0	23.0	11.0		3.0	34.0	27.0	12.0

*Includes sherds near surface of fill. The Red Mesa complex of pottery includes a dominance of Red Mesa Black on White, Lino Gray and Kana-a Gray (Neck Banded.)

In considering the percentages, the number of sherds in the samples should always be observed before further evaluation.

^oThe levels were arbitrarily six inches in depth numbered from the surface down. The stratigraphy block was isolated three feet from the south and 3 feet from the west walls.



a. Feature 4. Blackened area at back of basin is a mud reconstruction of rim.

The Pueblo II sherds may be intrusive, but the Red Mesa Black on White sherds of the lowest levels of occupation are very like the Basketmaker III sherds and probably came not much later in time. Hence, it may be that some of the La Plata Black on White was still being made when the site was occupied at this spot. (8-25-39)"

Feature #4.*

Feature #4 of the Bc50 Substructure was first discovered in excavating the north-south line. Feature 4 is situated to the north of Substructure room #7, and, although no evidence was found, it was probably associated with the room #7.

As evidence of a structure was shown in the west side of trench #1, excavation to determine the structure was started into the west trench wall. The floor of Feature 4 was evident, and an attempt was made to determine the outside limits of the structure. As the extent of the structure was difficult to locate, a small trench was made running west in order to reveal a vertical section which was expected to show the westernmost extent of the structure. The above trench clearly revealed the limit of the structure in vertical section. Then, having definite evidence of a circular basin shaped depression, a large area approximately 10 feet square was cleared off. This was removed in horizontal levels in order to procure an outline for the structure. Thus, by vertical and horizontal technique the exact outlines of the structure were obtained (Fig. 1 this section; Plate V.)

*Excavation and report on Feature 4 were done by Robert E. Bell.

As the outline of the structure revealed an oval basin shaped depression the basin was cleared out by a removal of natural fill or debris. Throughout this debris were a few pot sherds which were sorted and classified according to pottery types.

Feature 4 is illustrated in the map, Fig. 1. (Map 1, b; Map 2, e.) It has a north and south diameter of 8 feet and 4 inches, and a diameter east and west (from the west edge of trench 1) of 7 feet. The depth of the basin is 10 inches at the center. It is basin shaped with a fairly level floor.

A cross-section of the basin is shown in Fig. 2 (Map 2, e.) The basin had been dug into the native adobe or stratum III and later covered over with two other surface deposits, vix. I and II. Strata I and II were easily separated although each contained rocks, pot-sherds, charcoal, ash, etc. The depression or basin was entirely filled with stratum II.

In the basin fill, about 1 inch above the floor, an open ended, Pueblo I type sandstone metate was found, (Fig. 1) 23 inches long, 17 inches wide, 4 inches thick, with basin $1\frac{1}{2}$ inches deep (Bc50 20/393.)

Based on a percentage classification of pot-sherds (Red Mesa Complex) found in the basin (stratum II,) the structure is to be associated with Early Developmental Pueblo or Pueblo I.

The exact nature and use of this Feature 4 cannot be determined from actual evidence obtained in excavating. There were no features or artifacts which might offer a conclusion.

Basin-like depressions were found by F. H. H. Roberts Jr., on

Stollsteimer Mesa in the Piedra District of southwest Colorado.¹ Such depressions found by Roberts were associated with house structures, although they were larger than Feature 4, being about twice as large and measuring 15 or 20 feet across. Robert's conclusions as to the basin-like depressions were that they were "the remains of the pit from which the adobe used in the construction of the houses was taken"² and that after the completion of the houses they functioned as reservoirs. "There were many fine lines of water-deposited silt and sand in the material which filled the depressions. The entire aspect of each was such as to conclusively indicate that water had stood in them over a considerable period of time. They apparently were never thoroughly cleaned out but grew shallower and shallower as the collecting surface water dropped its silts and wind-blown sand drifted in. Their usefulness as reservoirs must have continually diminished, although it is possible that occasional repair work on the houses with an attendant removal of small quantities of mud from the pit may have checked the filling in process to a certain extent."³

The possibility that Feature 4 is a structure similar to depressions found by Roberts is to be doubted. Feature 4 showed no evidence of water laid deposits in the bottom. It is also much smaller and would not contain much water; too, with Chaco Wash close by, a reservoir would hardly be necessary. The nearest water supply at Roberts' site

¹F. H. H. Roberts, "Early Pueblo Ruins in the Piedra District, Southwestern Colorado," Bureau of American Ethnology, bul. 96, Washington, 1930.

²Ibid., p. 21

³Ibid., p. 33.

was much farther away and reservoirs would be more desirable. Such depressions at Stollsteimer Mesa were situated in low places where water would naturally accumulate; Feature 4 is located on a ridge and would not be fitted for natural drainage. That the depression, Feature 4, was the result of the removal of adobe for house construction seems quite likely, although I doubt if it functioned as a reservoir.

Basin-like pits associated with house structures found by Roberts at Kiatuthlanna¹ were shown to be the remains of granaries. He found about 10 such depressions, ranging in size from $5\frac{1}{2}$ to 7 feet in diameter and with a depth of from 2 to 4 feet. Such pits or depressions are smaller and deeper than Feature 4 of Bc50 substructure. Roberts found that the pits, which were the remains of granaries, "had consisted of excavations covered with poles, brush, and plaster roofs. The debris filling two of the pits contained large fragments of plaster bearing the imprints of poles and bursh. Others gave evidence of slanting side poles."²

"There is nothing at the present time (1931) to show just how the upper portion of the granaries was erected but it is possible that the method used may have been similar to that employed by the Navajo in their sweat houses. In the construction of such huts a framework consisting of three boughs is erected. The timbers used have forked upper ends which are interlocked in such a fashion that the tripod formed by spreading their lower extremities is capable of supporting considerable weight. Two straight sticks placed against the apex provide for a narrow entrance. Numerous other sticks, brush, and reeds complete the framework, which is then covered with earth. By building such a covering over a pit, a storehouse of considerable utility could be provided. The use of plaster on the exterior of the framework would make the roofing practically water-proof. The plaster on the walls of the pit would keep moisture from seeping into the sub-terranean portion, so that the interior of the

¹Roberts, F. H. H., Jr., The Ruins at Kiatuthlanna, Eastern Arizona, Bureau of American Ethnology, bulletin 100, Washington, 1931.

²Ibid., p. 41.

structure would be perfectly suitable for the storage of corn or other products. At the time of excavation one of the pits was almost half filled with carbonized corn on the cob."¹

In another pit which Roberts excavated he found that "the upper part of the debris which filled the pit consisted of charred poles and brush and burned blocks of plaster. The lower half was largely composed of burned corn."²

Roberts found two pits which gave no evidence of a superstructure³ although by comparison of them to the other pits, he assigned them the name of granaries.

It was also a custom occasionally at Kiatuthlanna to use abandoned granary pits for burials.

It is evident that circular depressions found by Roberts served as granaries although by comparison the Bc50 Feature 4 does not correspond with the Kiatuthlanna structures. Feature 4 is larger in diameter and shallower in depth; there was no evidence of a superstructure nor of a stored content, and the walls of the pit were not plastered. From such a comparison it becomes apparent that Feature 4 is not a granary pit of the Kiatuthlanna type. Feature 4 may be a variation of this Kiatuthlanna type granary, and, if so, further excavation on other pits should prove this point.

¹Roberts, 1931, p. 41.

²Ibid., p. 58.

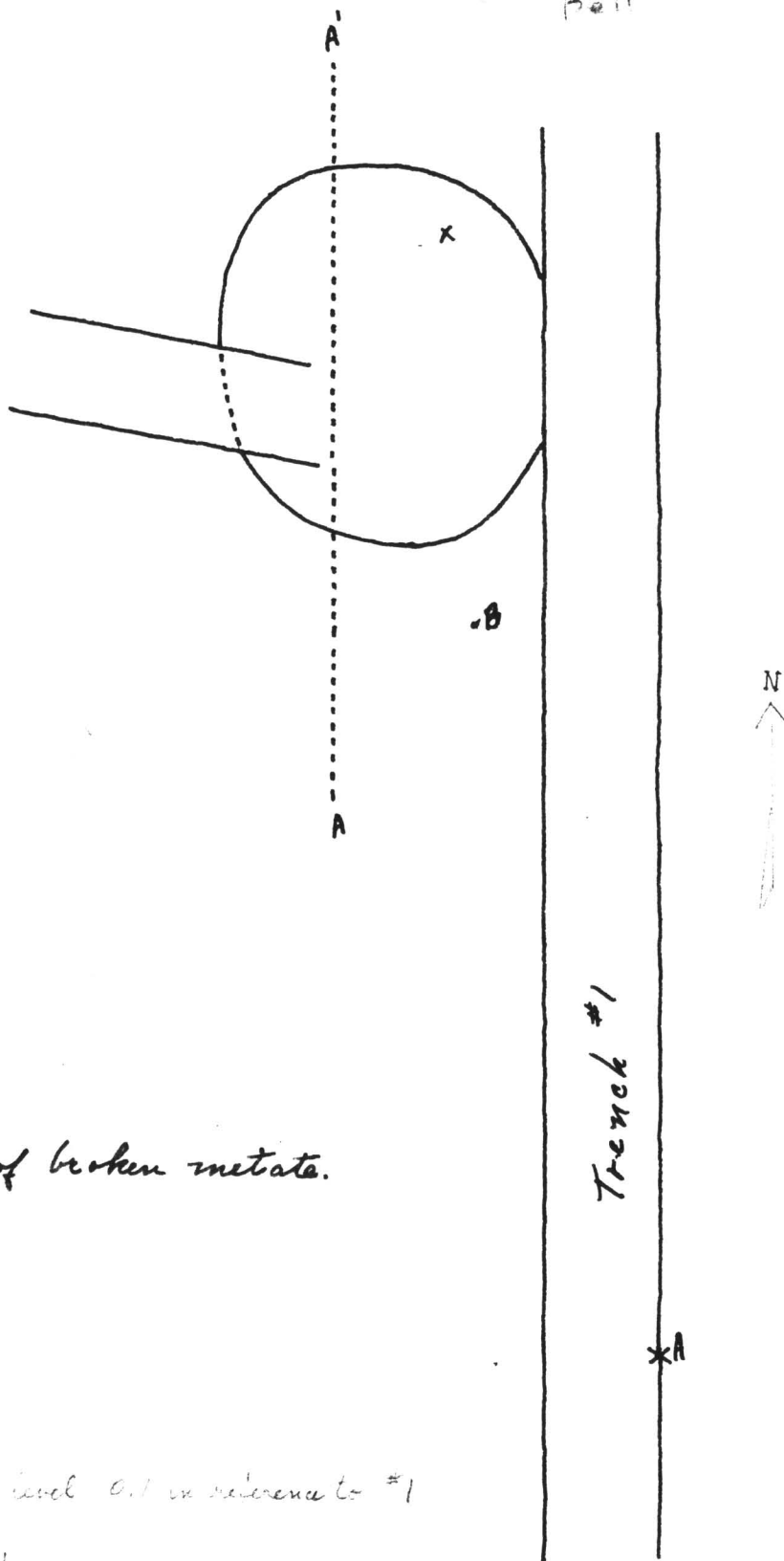
³Ibid., p. 76.

And in conclusion it is evident that Feature 4 does not compare with other basin-like depressions throughout the Southwest. Present evidence would not permit calling the structure either a reservoir or a granary. That it was formed by the removal of adobe for the house construction appears likely, although a later secondary function seems probable. Perhaps further excavation in the Bc50 substructure will reveal more such features and eventually lead to a satisfactory conclusion as to their use.

Feature #4

Figure 1

Ball



x - location of broken metate.

A - 2-30'R

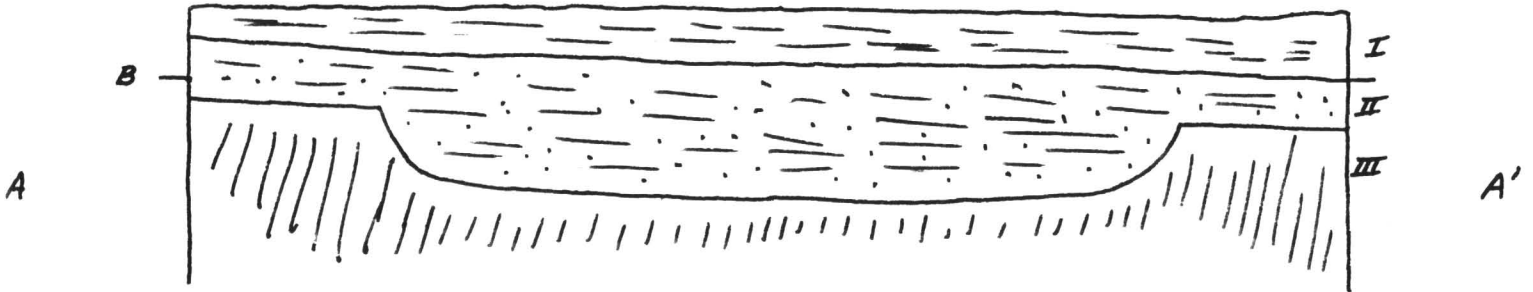
B - 1/4" diameter - level 0.1 in reference to #1

A-A - profile section

1/4" = 1'

Feature #4

Figure 2
(Bell)



- I - Present surface and surface deposit.
- II - Surface deposit.
- III - Natural adobe into which the basin was excavated.

B - datum level = 0.1 in reference to station #1

$\frac{1}{4}'' = 6''$

Stratigraphy

The deposits between Substructure 7 and Feature 5 were traced to determine the relation between these two structures. In this area two plaza levels and a number of strata appeared. The strata were numbered from the surface down. Stratigraphy blocks were isolated in each structure and followed to the floor. Pottery analysis was made for each stratum in each block.

(For all strata refer to Map 2, b, c, and e.)

Stratum 1. About eight inches of top soil extended over the entire area.

Stratum 2. Below the top soil was a wind and water formed sandy-clay deposit. It varied considerably in thickness and thinned out toward the west. (Plate VIII, a and b.)

Stratum 3. A purely local lens of sand extended south from a large firepit over the west edge of Feature 5. Within Stratum 3 may be included this firepit. On its eastern side the edge of the pit was formed of stones plastered into a lip, but on the west the lip was entirely of adobe a continuation of which extended to the west (Adobe "X".) (Map 2, b, c; Plate VI, b; Plate VIII, a, b.)

Adobe "X." An adobe layer extended from the large firepit west to above Substructure 7. It averaged 6 inches in thickness. This adobe formed the surface of a plaza. Here arranged in a roughly rectangular position were four post encasements around a firebasin. (Map 2, b, c, f; Plate VI, a, b.)

Stratum 4. Below the large firepit and extending southward and upward was a lens of "redeposited adobe." Its texture was characterized by fine lumps of adobe. It was over a foot thick at the south end where it appeared to have been thrown into a hole dug into Stratum 5. It thinned out to nothing at the north end of the large firepit (Plate VIII, a, b.)

Stratum 5. Resting directly upon the native earth was a sandy deposit which extended into both Substructure 7 and Feature 5. It was wind and water formed and contained an occasional fragment of charcoal (Map 2, b, c; Plate VIII, a, b.)

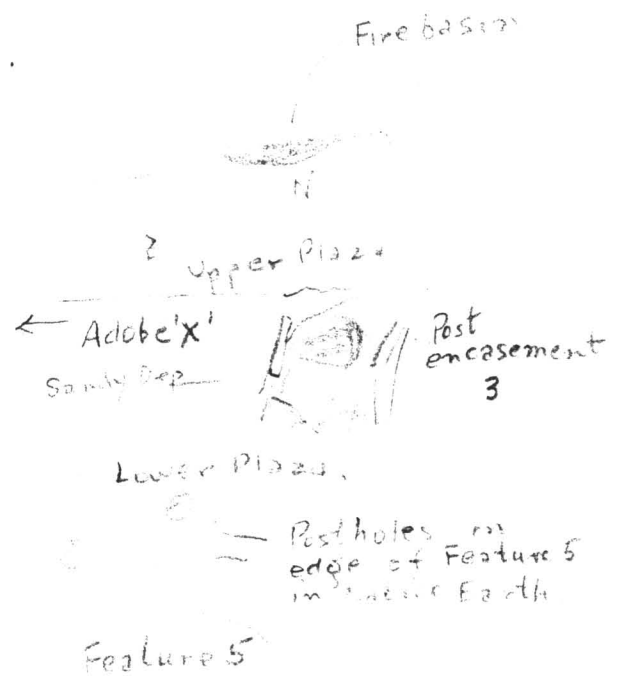
Strata 6, 7, and 8. Directly below Stratum 5 in the Feature 5 was evidence of the fallen roof of this structure. Near the wall on all sides of the structure was remains of a padding of the walls above the banquette (Stratum 6; Map 2, b.) Considerable black clay varying in thickness lay in a saucer-shaped lens over the area of Feature 5. Under the latter deposit at various places was found roof beams and fragments. Stratum 7 contained a portion of a fallen wall which may have closed the niche which breaks the rim of Feature 5 on the west. Stratum 8 was a local deposit of charcoal within the stratigraphic column.

Stratum 9. Below the roof debris Feature 5 was filled with nearly four feet of sterile laminated sand and clay. It must have required a considerable time for this deposit to have formed before the roof fell. Just above the floor of Feature 5 but still within Stratum 9 was found a number of turkey and dog skeletons. A quite sandy deposit at the bottom of Substructure 7 may be considered related to this deposit.

Stratum 10. Covering the whole floor of Feature 5 and filling all of the depressions in it was a fine yellow sand. The deposit was less than an inch thick in some places but was nearly a foot thick on the north side above the trough along the wall. It averaged a foot thick on the compartment chamber floor.



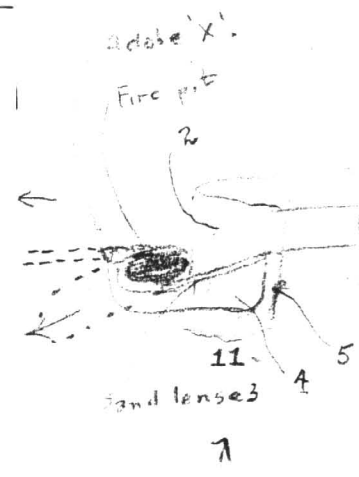
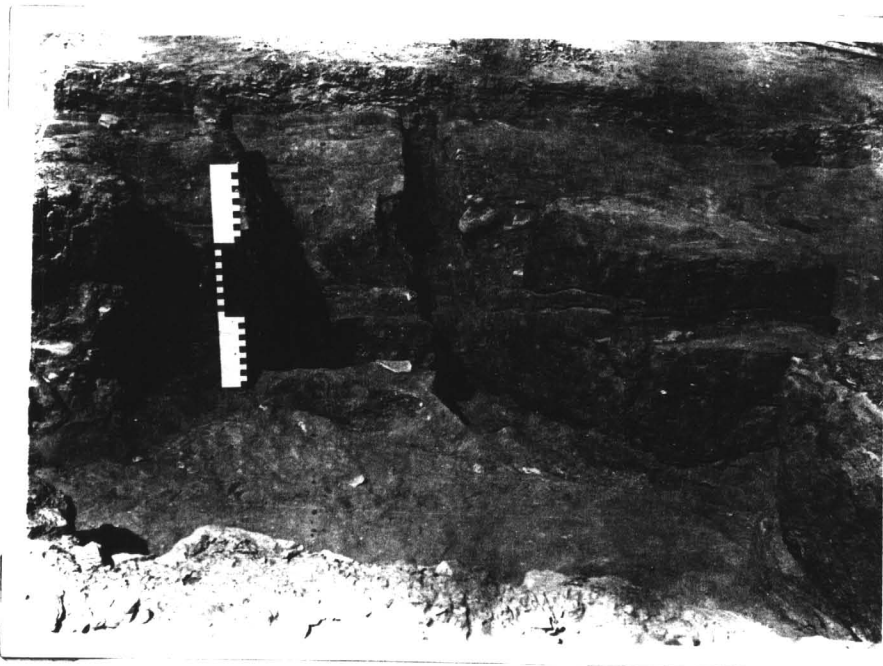
a. Post enclosure 1. Has carbonaceous shale bottom.



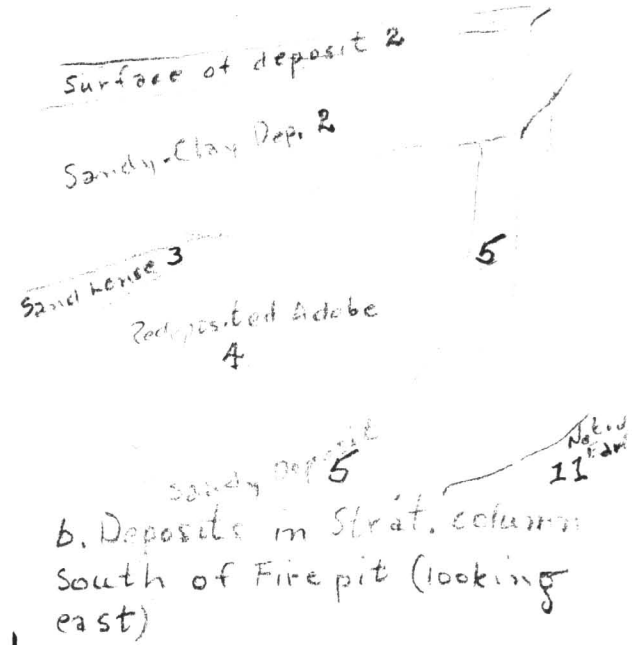
b. Upper and Lower Plaza showing postholes at edge of Feature 5. (Looking west).



2. Firebasin. (Arrow points north and is one foot long) Shows cross-section.



a. North Plaza: Surface Excavation showing Firepit and related strata (Looking north)



b. Deposits in Strat. column South of Fire pit (looking east)

Table II Feature 5

<u>Pottery Type</u>	<u>Stratum I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
Exuberant Corrugated	34	18.5	12	35.48	11.8
Escavada Black on White	21.28	7.4	24	6.45	5.8
Gallup Black on White	17.02	29.2	18	22.58	23.6
Red Mesa Black on White	12.77		18	19.35	23.6
Lino Grey (Kana-a Grey?)	8.51	40.7	16	9.68	17.7
Kana-a Grey		3.4	2		
Kana-a Black on White	2.13				5.8
Abajo Red on Orange	2.13		4		5.8
McElmo Black on White	2.13				
LaPlata Black on White	2.13		6	3.23	
Forestdale Smudged	<u> </u>	<u> </u>	<u> </u>	<u>3.23</u>	<u>5.8</u>
Number of Sherds	47	27	50	31	17

Stratum 11. Both Substructure 7 and Feature 5 had been dug into the native earth.

Stratum 12. Feature 5 penetrated on the average of a foot into the bed rock which is composed of Allison shale. Into this carbonaceous shale the various features of the floor were sunk.

Table II shows the shard analysis of the pottery found in the first five strata. Each stratum shows considerable mixture of pottery types of different periods. In general the pottery is that related to Developmental Pueblo, Pueblo I and II, but does not show the stratigraphic sequence of pottery development that is thought to have taken place in that period.

Strata 6, 7, and 8 were composed of roof and wall debris, and contained no shards. Stratum 9 was sterile of shard material, but yielded a number of awls along the wall on the east side and some pieces of turquoise. Near the bottom of this stratum were found both turkey and dog skeletons.

Within Stratum 10, on the floor of Feature 5 were found

Lino Gray (Kana-a Gray?)	7 shards
Kana-a Gray	1 shard
Red Mesa Black on White	1 "
La Plata Black on White	1 "

The abandonment of Feature 5, on the basis of the above data, must have occurred not later than the time of the Red Mesa pottery complex in Chaco or Early Developmental Pueblo in Chaco.

All pottery identification was checked by Florence Hawley. The identification of deposition strata was checked by Sheldon Judson.

Firepits and Post Encasements.

In the area between Substructure 7 and Feature 5 above Stratum 3 and Adobe "X" was a plaza level. On this level were two firepits and four post placements (Map 1, a; Map 2, a, b, c, f; Plate II, foreground, before excavation; Plate VI, a, b; Plate VII; Plate VIII, a.) The post encasements were grouped in a rough rectangle around a firebasin (Map 2, f) over which posts in these encasements may have supported a shelter (Fig. 2.) To the southeast of this postulated shelter was a large firepit with adobe and stone lipping. On this pit's south edge rested a large stone which may have been used as a seat. This plaza was probably associated with the Pueblo II superstructure of Bc5Q (See Table II.)

The firebasin was twenty-three inches long and 18 inches wide. It was 4 feet east of post encasement 2 and 3 feet west of post encasement 3. It was 3 feet north of post encasement 4 and 3 feet 6 inches southeast of post encasement 1 (Map 2, f.)

Post encasement 1 was slightly disturbed. It was floored with carbonaceous shale and filled with broken shale which must have been packed around the now rotted away post. The placement had diameters of 12 inches from east to west and 10 inches from north to south measured on the inside of the casement.

Post encasement 2 was on an average 12 inches in diameter and had been sunk through the adobe of the wall of the bin at the southeast corner of Substructure 7 (Map 2, f.)

Post encasement 3 was 14 inches west of the west edge of Feature 5 and 4 feet north of the recess niche on the west side of Feature 5. It was 4 feet north of the adobe lip of the large firepit. It averaged 1 foot in diameter and was 2 feet deep. The floor was a flat stone and

the cavity was filled with broken carbonaceous shale which must have been packed around the post (Plate VI, b.) The encasement included a rotten fragment of [populus albus] averaging 6 inches in diameter.

Populus sp. (albus?)

Post encasement 4 was 2 feet 6 inches west of the northwest corner of the recess niche of Feature 5. It was 10 inches in diameter and 19 inches deep. The cavity of the encasement was filled with broken carbonaceous shale. Among the stone forming the encasement were two concavo-convex bricks of baked clay which showed flecks of charcoal. These "turtle back bricks" were each 8 inches long, 3 inches thick, and 4 inches wide. In cross-section they were lunate shaped. One concave side was fitted over the convex back of the other brick. One brick of this sort was found in the compartment wall of Feature 5. Gordon Vivian reports a wall of "turtle back bricks" associated with a pure Red Mesa pottery complex in a ruin he excavated in the winter of 1938-39 near the present C.C.C. Camp up the Chaco Canyon at the Fajada Gap. Kelley in Feature 2 found bricks showing dermatoglyphs and the same conformation. The bricks in the encasement may have come from the adobe wall which stretches southeast from the bin in the corner of Substructure 7.

The large firepit (Plate VIII, a) was 5 feet long, 3 feet wide, and 8 inches deep. The lip averaged 7 inches in width: stone and adobe at the east end and adobe at the west end. Inside measurements of the pit were roughly 4 feet long and 2 feet wide. It contained small pieces of the charred limbs of some unidentified brush and ashes. In lens Stratum 3 and Stratum 4 below the pit were considerable shard deposits. (See Table II.)

The large stone to the southeast of the pit was roughly 1 foot 6 inches long, 7 inches thick, and 9 inches wide.

Feature 5

Feature 5 was a large circular structure dug into native earth and bed rock (Map 1, b; Map 2, a, b.) Around the east, north and west sides was a banquette along which were found masses of padding of grass, cedar bark, and reed. This padding lay in the same stratum with numerous rotten fragments of roofing poles. Over the whole deposit of roof debris was a layer of thick, sticky, dark clay which must have covered the roof when the structure was occupied (Strata 6, 7, and 8 on Map 2, b.) The roof was supported by five poles placed near the banquette wall in the case of the north, east and west poles and in the wall of the compartment for the east and west compartment poles on the south side of the structure (Map 2, a.) Within the fill of the structure were found numerous bone awls along the walls, turquoise and stone pendants, polishing stones, worked stone objects, and pottery (see later artifact list and Table II.) In the west above the banquette was a recess in the wall within which was found a shell bracelet. To the east of this opening below roofing debris was evidence of a fallen wall which may have closed this aperture. On the surface to the south of the pit structure was a stone lined shaft which led down and joined an earth shaft from the south compartment in the structure. The compartment was stone walled on two sides and adobe on the west. In the lower part of the east end of the wall one turtle back brick, 11 inches by 3 inches, was found. At each end of the compartment was a bin. In the case of the west bin the north wall was made of small posts plastered in. In the north compartment wall were two symmetrically placed apertures, 10 inches wide, at the top below which were plastered in slabs, outlined with a 4-foot lip of clay, on each side of

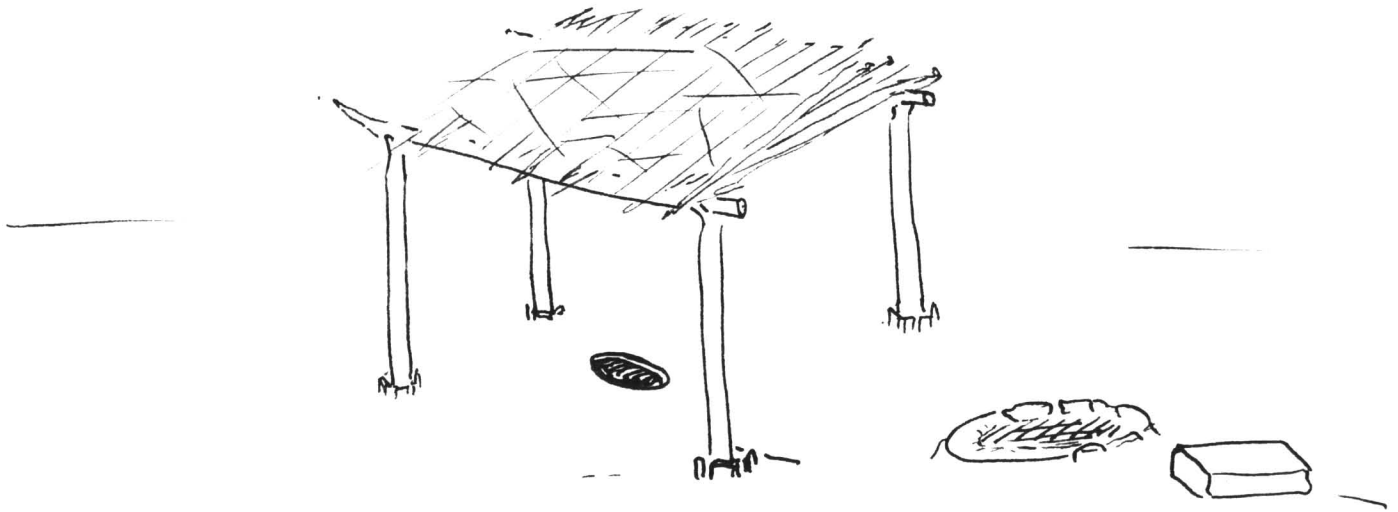


Fig. 2. Possible reconstruction of postulated shelter on Pueblo II plaza between Feature 5 and Substructure 7.



Reiter's slanting poles holding padding
from Kiva I at Chetrokettle. see page 21.
(photograph by Reiter)

the central firepit in the floor. Approximately similar compartments were found by Roberts in several of the pithouses of Allantown and of Shabik'eshchee. Morris reports other compartments in his series of BM III and P I "protokivas" in the La Plata district of Southwestern Colorado. Along the north wall above the banquette were two niches, one of which included a cache of smooth stones and a pipe. Just above the floor were three turkey skeletons, considerable disturbed turkey bones, and two dog skeletons. One of the dog skeletons appeared to have been buried.

Padding.

(Bc50 35/9, 10) The only occurrences of padding noted in the literature are in Pepper's Pueblo Bonito report,¹ and in the unpublished paper, "The Ancient Pueblo of Chetro Ketl" by Paul Reiter.² In Kiva 16 Pepper found padding behind the vertical poles along the bench. Kiva N at Pueblo Bonito (See below Fig. 3) showed vertical poles along the side of

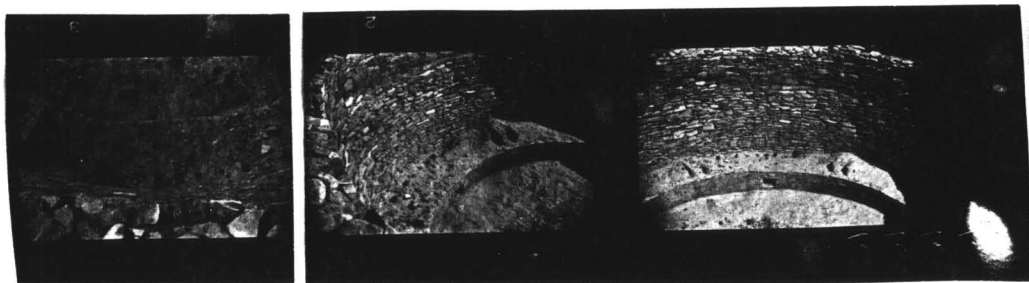


Fig. 3. Kiva N, Pueblo Bonito, showing posts along the wall on top of the bench.

bench. Reiter states that in Kiva I of Chetro Ketl padding was found behind poles that came out at an angle from the back of the bench.

¹Pepper, G. H., Anth. Paper, A.M.N.H., vol. 27, 1920, p. 75.

²Reiter, Paul, "The Ancient Pueblo of Chetro Ketl," ms. in University of New Mexico Library.

The poles had been plastered over so that the padding was cut off from the inside of the kiva. Martin in his "Modified Basketmaker" sites found poles coming out at an angle from the bench. He suggested that these poles went up to support the roof.¹ Roberts reports from the Whitewater district jacal facing at the back of the bench in the Kiva for Unit No. 3,² ~~second~~ ^{and} holes for slanting side poles in Kiva B (Fig. 48.) He suggests that

¹Martin, Paul S., Anth. Series, Field Museum, vol. 23, no. 3, 1939, p. 380.

²Roberts, 1939.

they may have served as a support for the walls of the excavation or that this "wainscoating" may represent a survival of the sloping side timbers of the old original subterranean pit dwellings (p. 233).

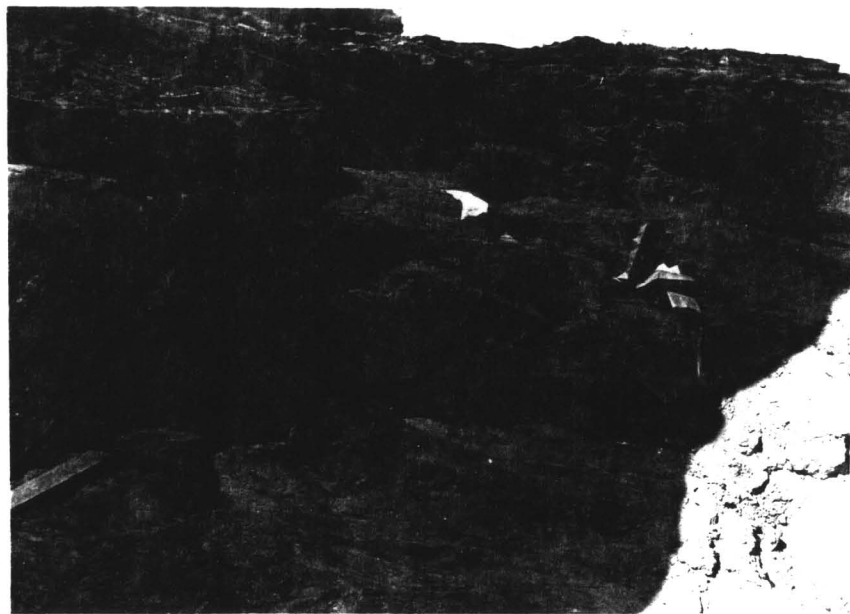
Along the southwest wall the padding showed a circular cross-section 10 inches in diameter. It extended 6 feet north from the southwest wall and spread out on this stratum level to as wide as two feet in some places (Pl. IX, a). On other parts of the periphery of the structure fragments of padding appeared except in the south segment above the compartment. At three places along the main wall associated with fragments of padding were rotten boards. One board was just above and six inches north of the east end of the north wall of the east compartment bin. It was approximately 9 inches wide and less than an inch thick and in a very crushed and rotten state. It extended vertically about a foot. The measurements are vague because of the poor condition of the board. One foot 6 inches to the north of the latter was another board which roughly fits the above description. On the north side directly south of the north support pole was a similar board. Whether these boards served to hold the padding against the wall or were included in the pad was impossible to determine. If boards were used instead of poles in the "wainscoating", the absence of postholes at the back of the bench may be explained (Map 2, a).

There seems little substance to the theory that the padding was soaked with water to offer steam for a sweat bath ^{when} large fires were kindled in the 6 fire basins of the structure's floor. It is true that sand filled pits along the edge of the floor as well as the sand filled north trough would have absorbed excess water from the oversoaked padding and that the many fire pits and basins are hard to explain, but comparative evidence seems to indicate the the padding was always covered over.

Roof and Support Poles.

A study of the position of fragments of roof structure revealed in only one case any evidence as to the original roof pattern. Just above the compartment wall between the support posts incorporated within it was a horizontal log mould filled with rotten fragments. The mould was 7 feet long. The original log must have been a stringer between the aforementioned support poles (Map 2, b; Plate IX, a.) Above the jacal wall at the west end of the compartment in the fill were a number of pole fragments but the relationships of their positions revealed nothing as to the roof's structure. One foot northeast of the west post appeared two crossed fragments of poles about 3 inches in diameter. All of the above mentioned fragments were in the strata on a level with the bench, Strata 6, 7, 8 (Map 2, b.)

There were 5 roof support poles arranged symmetrically around the structure (Map 2, a.) Two were included within the compartment wall at each end at the corner of the end bins. They were 10 feet 6 inches apart. The east one was 19 inches west from the east wall and 40 inches north from the south wall. The west compartment post was 24 inches from the west wall along the jacal wall which formed the north side of the west bin. The two compartment posts averaged 7 inches in diameter. The west post was 7 feet 8 inches from the west compartment post and 14 feet 2 inches from east compartment post. It was 8 inches in diameter and was encased in stones at the bottom. It stood directly against the wall. It was well enough preserved to stand by itself, when the post mould of fill was removed from around it, to the height of the bench. (Plate X, a.)



- a. Padding in large masses against southwest wall. Under two-by-four at left is rotten log which must have formed a stringer between the compartment posts. Excavation is to level of banquette.



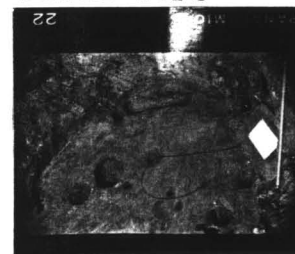
- b. East compartment post, east compartment separating wall of stone which formed west wall of east compartment bin. Brush indicates fragment of jacal wall, which must have formed part of north wall of east compartment bin or may have been wainscoting from bench above.

Immediately to the northeast of the west post encasement was an auxiliary post which had been sunk into the carbonaceous shale floor 8 inches. This support ^{stood in a position} ~~is to the~~ ^{to the pole} analogous pole in Structure 2 Unit 1 of Robert's Whitewater Wash sites where the plaster support is used.¹ (Robert, 1939, p. 35) The two posts, though the best preserved in the whole of Feature 5, were too rotten to show ring structure. They were of ^{juniper} cedar (Juniperus sp.?).

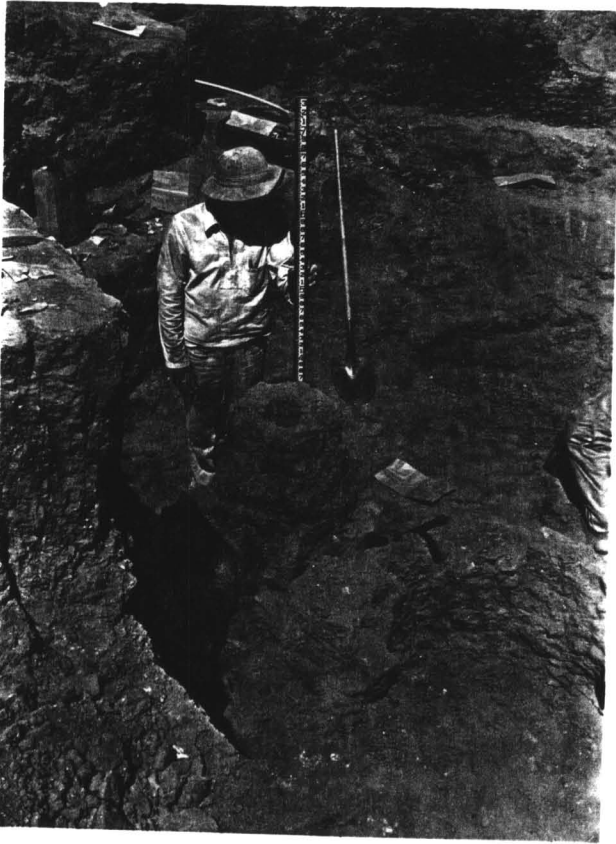
To the south of the west post encasement were three thin sandstone slabs lining the wall. ^{to the plaster line pit in the corner} ~~to the~~ The wall from that point on showed a thin sandy plaster.

The north post encasement and mould was 8 feet from the west post and 8 feet from the east post. ^(Fig. 4) It was roughly in line with a sight through the ventilator opening, the main fire pit, and the sipapu. The post mould was ^{5 inches in diameter and was} encased in thin slabs of stone of varying thickness. ~~It~~ was placed directly against the banquette, which was 17 inches wide at that point. Directly east along the wall from the north post was a plaster lined trough (Fig. 4) Between the north post and the east post at the back of the bench were located two niches (Map 2, a).

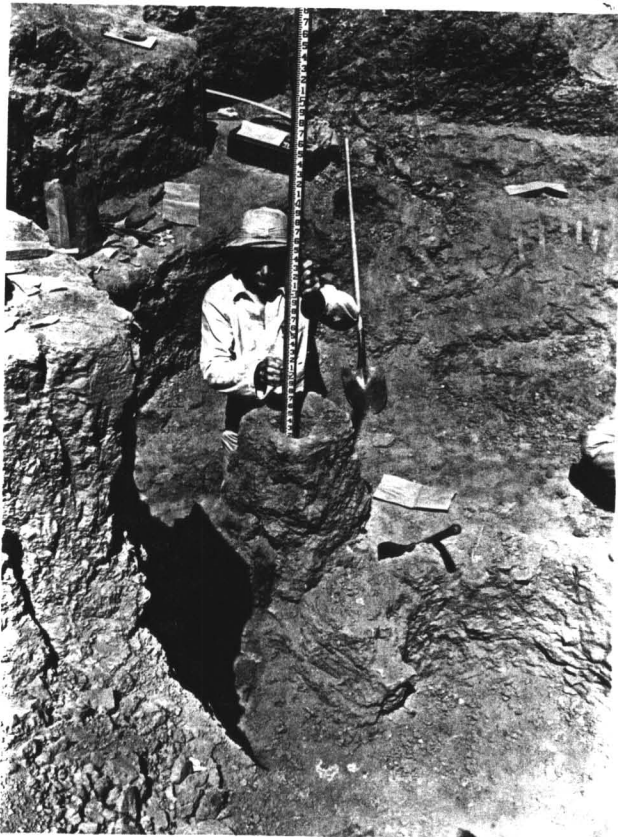
Figure 4. Showing relation of north west and east posts, the trough, and other floor features of the north segment of the floor of Feature 5. (Argus shot from south)



The east post was 5 inches in diameter and encased in stone slabs of varying thickness at the bottom. It was 16 inches deep from floor level and the post mould stood up to the level of ^{and against} the banquette which was 22 inches wide at that point. The post was 8 feet from the north post, 7 feet 8 inches from the east compartment post and 14 feet 6 inches from the west post. All of the wood from Feature 5 was submitted to Hawley who said that it was all too rotten to have any dating possibilities.



a. Post mold of west compartment post. Mold of west post seen in background indicated by shovel handle. Rod rests on floor. In foreground may be seen portion of adobe wall forming east wall of west end compartment bin. At top above rod in picture may be seen the west recess.

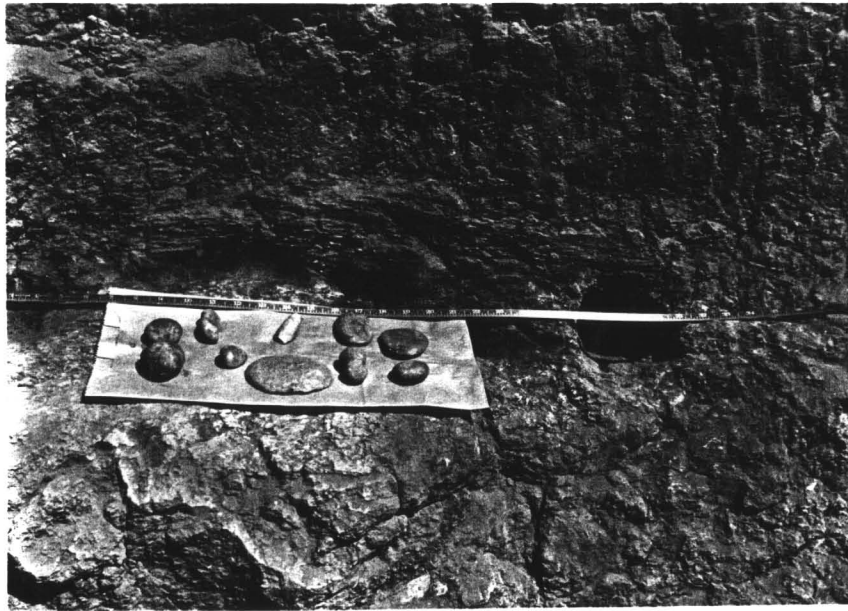


b. Same as (a) except rod is in mold to show depth to which mold was empty.

PLATE XI



a. Cache in north niche,
white stone pipe in
immediate center.



b. Cache removed
showing many
shaped smooth
stones and pipe.

West Recess. Breaking the main wall behind the banquette directly west of the west post was a recessed niche. It was 30 inches wide at the front and 35 inches wide at the back. Its depth was 20 inches from the back edge of the banquette which was 21 inches wide at that point. The back edge of the bottom of the recess was 3 inches deeper than the front edge. at the northeast edge of the recess floor on the edge between it and the banquette top was one stone which may have been a part of a wall that closed this enclosure from the rest of the pit structure. Along with the roof debris and directly under it was the remains of a wall with the stones in position which may have fallen from this aperture (Map 2, a; Pl. X, a, b). The presence of the wall material seems to forestall the possibility that this feature may have been a side entrance to the structure.¹ On the floor of the recess in a thin layer of yellow sand was found³ fragments of a shell bracelet (Bc50 ³⁰180). The walls of the recess showed that the excavation had been made with a pointed instrument possibly a digging stick. The same observation was made concerning the wall of the structure above the banquette from the recess on north to ~~xxx~~ the north post. cylindrical

North Niches. Two ~~circular~~ niches averaging 4 inches in diameter and 8 inches deep extended from the back edge of the bench between the north and east posts. The most westerly of the two niches was 6 inches east of the edge of the board behind the north pole. It contained a cache of 9 assorted smooth stones. One stone (Bc50 20/433, a) was hour glass shaped; another (b) was the side of a hollowed out concretion; the rest (c, d, e, f, g, h, i) were smooth river pebbles. In the same cache was a chipped white stone pipe. Around the mouth end a ring had been incised. The pipe was $1 \frac{3}{2}$ inches long and $\frac{3}{4}$ inch in diameter at the end

¹Roberts, 1930, fig. 8, p. 421

opposite the bit. The stones were examined by Stubbs of the Laboratory of Anthropology who said that none of them fitted the description of a lightning stone (Pl. XI, a, b). A second niche 3 feet to the east along the main wall was empty. Neither had been plastered over. Roberts interprets holes fairly similar to these as placements for roof braces.¹ (1. Roberts, 1939, p. 69, 75, 87) At another place in the same report a stone encased hole on the north side of the bench wall slightly below bench top level is called a Kachina niche.² (2. Roberts, 1939, p. 212, fig. 47, b) The same is true for Kiva for unit No. 3 (ibid. p. 234, fig. 51, c). In the Nutria district Roberts found a very large Kachina niche in the same position³ (Roberts, 1939, fig. 7, i). All of these, however, were below the top of the bench. Niches of approximately the same dimensions as those in Feature 5 were found above the bench in the Great Kiva in the Lowry Ruin; they were all empty.⁴ (4. Martin, 1936, p. 49) In the Great Kiva at Pueblo Bonito a series of niches above the bench runs around the whole circumference (Fig. 5).

Fig. 5. Great Kiva at Pueblo Bonito showing niches above bench. (Argus shot from east)



In Feature 2 (see Kelley's report) were two holes quite similar in size to those of Feature 5 and placed in much the same position with reference to the other floor features. They were below the top of the bench level and were empty. They had been plastered over. It is possible that all these niches are related and that they were placed above the bench when it ~~stopped serving~~ ^{no longer served} as a support for sloping roof side posts.

Artifacts in fill. A pot scraper 1 inch long and $\frac{3}{4}$ inch wide Red Mesa Black on White type was found in Stratum 5 above the wall on the west side of Feature 5 (Bc50 10/118). Fifteen bone awls were found in the fill of Feature 5. Most of them were in association with the padding and along the west, south and north walls. Individual description of exact location of each may be found on the catalog cards (Bc50 30/160,174,175,182, 183,184,185,186,187,188,189,190,193,194,195). A pecking stone was in Stratum 9 on the southwest side of the structure. It was $2\frac{1}{2}$ inches long and 2 inches wide and $\frac{3}{4}$ inch thick (20/430). An obsidian knife $2\frac{1}{4}$ inches long, $1\frac{1}{2}$ inches wide and $\frac{1}{8}$ inch thick with smooth under side and secondary chipped edges was found against the northeast wall in Stratum 9. In the fill of Stratum 9 on the southwest side near the wall was found a smooth milky quartzite stone which Stubbs identified as being similar to the so-called lightening stones which glow in the dark when rubbed and which are common in the kivas of the Rio Grande and in modern ceremonial practice. It was 2 inches long by 1 and $\frac{3}{4}$ inches wide by 1 inch thick (20/429). Two worked stones were found against the southwest wall in Stratum 9 (20/422). A worked stone maul with side notching $5\frac{1}{2}$ inches wide by $8\frac{1}{4}$ inches long was found in Stratum 5 above the west recess (20/394). Three pendants were found in the fill. One turquoise pendant $\frac{3}{8}$ inch long by $\frac{5}{16}$ inch wide at end opposite perforation and $\frac{1}{16}$ inch thick was found 1 foot east of bench and 2 feet west of west compartment post on the level of the banquette top at the top (20/414) of Stratum 9. A second turquoise pendant $\frac{3}{8}$ inch long and $\frac{1}{2}$ inch wide with broken perforation was found in Stratum 9 in the north eastern portion of the structure. (20/425)

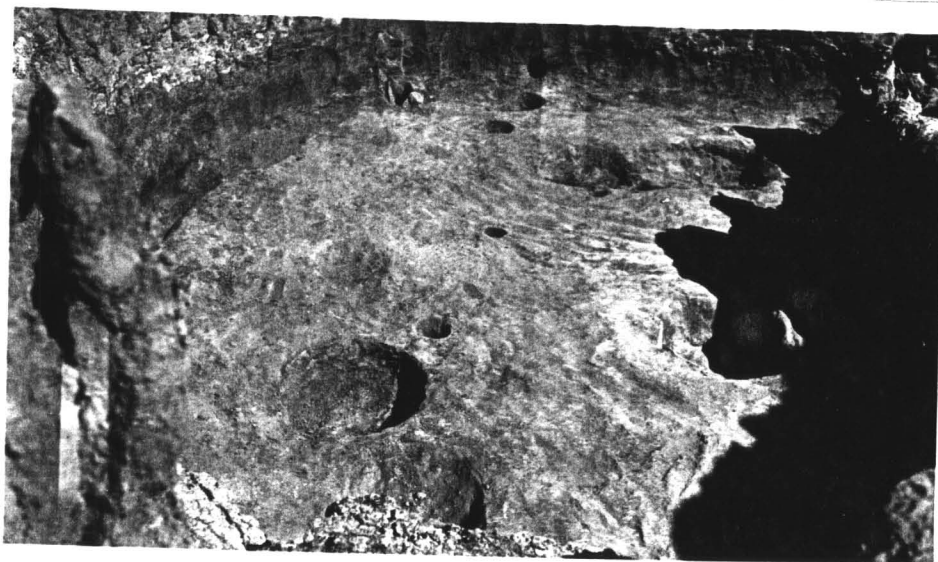
A third pendant of grey stone perforated at one end with a boring $3/16$ inch in diameter, ~~2~~ $3/4$ inches long, $1\ 7/8$ inches wide and $5/8$ inch thick was found 33 inches south of south side of west recess niche on the bench 8 inches east of west wall. ~~SSSS~~ Six smoothing pebbles were found at various places in the fill (20/362, 374, 415, 420, ⁴²⁷428). In the fill of the West niche recess was found a hollowed out stone concretion which may have served as a bowl. It was $5\ 1/4$ inches across at the aperture side and $4\ 5/9$ inches high. ~~220/x~~(20/431). Another worked concretion was found ^{near} ~~on~~ the floor 4 feet 7 inches from the west post and 3 feet from the west compartment post. It was hollowed out and was $3\ 1/2$ inches long, $2\ 3/4$ inches in diameter. The hole ^{in the concretion} was $1\ 1/4$ inches in diameter (20/426). A stone paléte (?) $4\ 1/2$ inches wide and $5\ 1/2$ inches long was found in Stratum 9 on the southwest side of the structure (20/421). No comparative study was made of the above objects.

On the floor directly above the sinapu rested a stone ball $4\ 3/4$ inches in diameter. Many stones similar to this one were excavated in rooms of Pueblo Arroyo. (20/424).¹

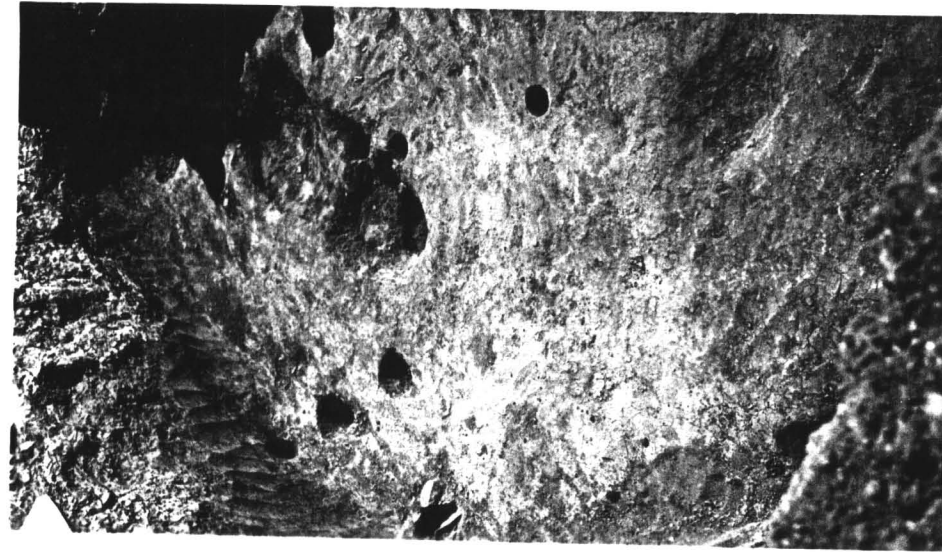
(1. All catalog numbers in this section are for Bc50)



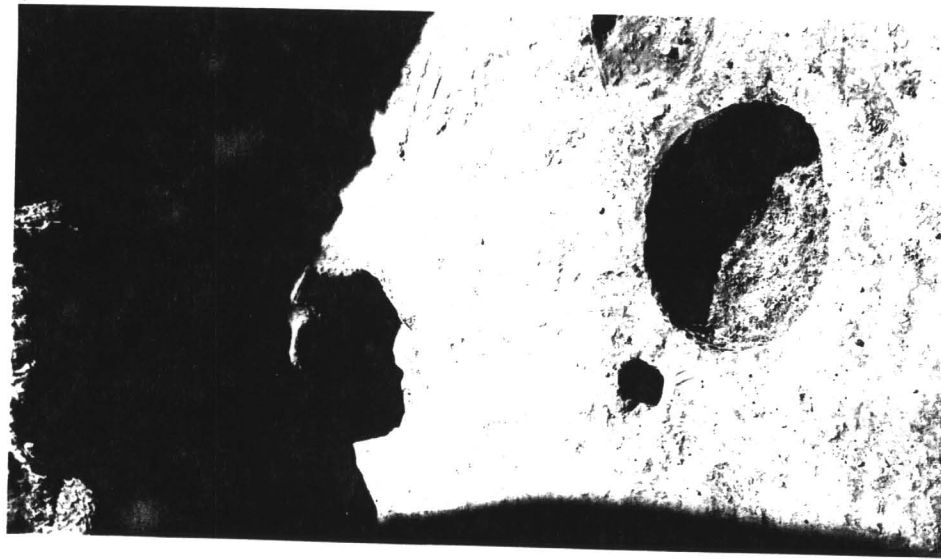
a. Dog skeleton. Possibly was a burial since stones were placed around and over it. Located in fill near floor.



b. Extracompartiment floor.



a. Eastern section, showing east post-enclosure, niche at floor level, holes, and east fire basin. In foreground edge of trough and lateral fire basin.



b. Central section, showing secondary fire pit, sipapu, central fire pit, lateral slabs, stone in floor, and compartment wall with apertures.



c. Western section, showing secondary fire pit, lateral fire basin, west fire basin, storage pit and holes, west end of compartment wall, and jacal wall forming compartment west end basin.

PLATE XIII FLOOR OF FEATURE 5. (Views from north).

Floor.

The floor had been re-plastered, six thin layers being easily counted in places.

The post holes or placements on the floor of Feature 5 have already been described. Besides these a number of other pits were found upon the floor, the most interesting being a series of six firepits making an approximate semi-circle around the central firepit; the latter, lined with stone slabs, had an opening 17 inches across and 23 inches long. The slabs slanted inward to meet a base slab smaller than the upper opening. The pit was rimmed with an adobe ledge 7 inches thick, the back of the ledge being only 7 inches away from the wall of the compartment. Just inside the rear slab of the firepit lay a second slab $2\frac{1}{2}$ inches thick and extending to the bottom of the pit. The function of this slab is unknown. The west firebasin, 13 inches across and 19 inches long, was an oval depression 4 inches deep in the center. The upper level of it was filled with yellow sand, but beneath this was a layer of charcoal. This firepit had not been plastered and the natural deposit into which it had been dug was colored an orange-red from the heat of the fire. In the north end of this pit was a hole 4 inches in diameter and 6 inches deep which showed no evidence of having been a posthole and for which no specific function could be suggested. A second similar hole 6 inches in diameter was found 2 inches to the east of the north end of the west firebasin. The hole was filled with yellow sand. In line with the axis of the central firepit and the ventilator was found a large secondary firepit 22 inches in length and 21 inches across. It was 8 inches deep, unplastered, the interior burned red and filled with

small pieces of charcoal overlaid with yellow sand. Two smaller lateral firebasins flanked this secondary basin. They were approximately 16 inches in length and 10 inches in width. These were much more shallow than the secondary firepit, the depth at the center of each being only about 2 inches beneath the floor level. The east firebasin appeared to have been a double arrangement with two basins connected by a shallow area which also showed evidence of burning. The southern one of the two was 21 inches and the northern one 14 inches in diameter. The total length over the two basins and the adjoining more shallow area was 4 feet. The large basins were approximately 4 inches in depth. Like the others the east basin was unlined and reddened by fire. Its outline had broken down to some extent so that it was impossible to say whether the two parts had been connected originally or whether the fire in the two had merely been hot enough to redden the ground between them. Both contained charcoal and yellow sand. In the northern one of these two basins was a hole 10 inches deep, 10 inches in diameter at the surface but undercut to 12 inches in diameter.

The purpose of these numerous firebasins can only be conjectured. If it were suggested that they were used at different times, one would have to counter with the statement that they were all at the same level on the floor and all showed the same characteristics. The suggestion of ceremonial function might be made, but it would seem that even as a ceremonial feature these numerous firebasins crowded the floor and the heat generated by so many fires burning at once would have made the interior of the kiva very hot.

Two other basins, apparently not used for fire, were discovered, one at each end of the compartment wall. The west basin, oval in shape,

measured 18 by 15 inches with a depth of 6 inches. The east basin, approximately circular in shape, had a diameter of 12 inches and a depth of 3 inches. Just to the north of this west pit was a small oval basin 2 inches from the wall, 15 inches long, 7 inches across, and 5 inches deep. In the south end of this basin a circular hole, 6 inches across, had been dug to a depth of 8 inches. Another oval pit 9 inches in diameter and 7 inches deep was found against the wall to the south of the west basin and post encasement, and still another slightly larger circular pit 14 by 12 inches and 5 inches deep was found in an approximately relative position against the wall to the north of this post encasement. These pits might have served for storage although nothing but yellow sand was found in them at the time of excavation.

The long, narrow trough at the northern edge of the kiva floor, 4 feet long and 4 inches wide was plaster lined. It was filled with fine yellow sand without evidence of charcoal or of other material. There was no evidence of the function of this unusual floor feature.

A series of small holes averaging 4 inches in diameter and from 4 to 10 inches deep was found near the firepits on the east side of the floor. The two near the northern end of the east firebasin were connected by an undercut, and it was suggested that perhaps they might have served in anchoring one corner of the lower portion of a loom. The other hole located between the east lateral firebasin and the east firebasin might possibly have been where the other end of the loom was anchored. This arrangement would not explain the other two holes near the eastern aperture, nor the hole opposite the raised section between the two portions of the east firebasin, nor the hole just to the north of the post in the eastern end of the compartment wall. The latter two of these

holes might have served as loom bases, and the same suggestion might be made for two similar holes in the western part of the kiva, the one being just to the east of the west firebasin and the other near the west aperture of the compartment wall. A smooth sandstone slab, 13 by 11½ inches, with a slight central depression was found incorporated into the floor in such a position that one might suggest it had been used as a seat by a weaver working on a loom set up in these two holes. Roberts reports a single stone set into the floor in house #2 of the Allantown village.¹ The difficulty of the explanation of all these holes as loom bases is that they were so near the firepits that one would think the fabric being woven might well have been injured when the fires were burning. On the other hand, most of these holes were undercut toward the bases to some extent, a feature for making the loom support secure, found in such caves as Kitsil and Betatkin in Segi Canyon in northern Arizona.

Ventilator.

The surface opening of the ventilator shaft was 6 feet from the edge of the nearest wall of the main structure. It averaged 15 inches on a side with a rounding on the south side which had a depth of 3 inches. The vertical shaft was lined with stones averaging 4 inches in width and laid horizontally. The vertical depth of this shaft was 5 feet and an horizontal shaft of dirt excavation led into the compartment 1 foot above the floor and at the level of the top of bed rock strata. This horizontal

¹Roberts, F. H. H., Archeological Remains in the Whitewater District, Eastern Arizona, Smithsonian Institution Bulletin 121, 1939, p. 39.

shaft was roughly a foot in diameter. A slumping of the south wall of the kiva at some date much earlier than our excavation had made the exact delineation of the internal aperture characteristics impossible. It seems on typological basis that the lining of the vertical shaft must have been done at the same time as the building of the stone compartment wall.

Turkey and Dog Skeletons.

In the fill just above the floor of Feature 5 at various places were four turkey skeletons, dog skeletons, and one dog skull. The turkey skeletons were still for the most part in position of articulation. Whether they were buried or not could not be determined. One of the turkey skeletons, however, was in association with some slabs of sandstone which may have been placed around it at time of a burial. Much clearer indication of a burial was present in the case of the dog skeleton (Plate XII, a.) Stones had been placed around and one stone rested above the skeleton. The bones of the dog were all in position of articulation.

Since the fill of Feature 5 was all laminated and windblown for the first four feet, it seems that these animals must have gotten into the structure after abandonment and died there or were cast or buried there by human effort. With the possible exception of these animal bodies, Feature 5 was not used as a repository for refuse at all.

Roberts discusses a similar occurrence in the Whitewater district which may well be read in this connection. (Roberts 1959, p. 113, Struct. 12.) He thought that the dog found in Structure 12 might have fallen in and died. In the case of the dog in Feature 5 this seems

unlikely in consideration of the stones in association. In the same report Roberts shows that the burial of turkeys and dogs was common in the refuse heap during the Early Developmental Period.

The turkeys' skeletons were found at the following points: 2 feet north of the east compartment post; 3 feet from the west post and 6 feet from the west compartment post; 3 feet 6 inches north of the east end of the east plastered in compartment slab; and 2 feet northeast of east compartment post 6 inches from the wall of the bench. These skeletons were in a yellow sandy fill on the average of 6 inches from the floor.

Identifications were made by James Spuhler.

The dog skeleton was three feet east of the west post, measurement taken from skull. The skeleton extended from this point east. A dog skull was found directly north of the latter 1 foot 6 inches from previously mentioned point.

General Statements about Feature 5.

In general, it might be said that Feature 5 appears to have been a kiva with the usual arrangement of shaft, fireplace and possibly sipapu and with a high banquette. The unusual features about this structure were, first, its walled compartment, the shape of which followed the low stone slab and adobe walls and the low clay ridges found separating the section on the side of the entranceway from the rest of the floor as in Roberts' pithouses at Shabik'eshchee and at Allantown, and in Morris' protokivas in Southeastern Colorado. Roberts suggests that the clay ridge and the compartment

wall may have served a purpose in dividing the participants in a ceremony from the onlookers. Unfortunately, such a hypothesis can never be anything more than conjectural.

The unusual number of firebasins in addition to the ordinary firepit in this structure has not yet been duplicated elsewhere as far as published reports indicate. The use of fibre padding around the walls, previously described for only one kiva in Pueblo Bonito and one kiva in Chetro Ketl is of especial interest because of the fact that its use in Feature 5 so far antedated its use in the other two kivas. There has been no explanation for the function for such wall padding, over which a plaster surface was placed.

No ladder pit was found, but it is possible that such a pit might have existed just behind the compartment wall where the floor had not been preserved well enough to show the feature.

III. WALL TYPES

The walls of the substructure of Bc50 show considerable variation (Map 1, b.) Pueblo I, a period of great changes in many items of material culture, is obviously a period of changing values and concepts, the changes presumably being due to outside contact, inner growth and the probable amalgamation of some immigrants bringing their culture set-up into the Basketmaker area. In their arrangement the Pueblo I people were trying to make an adjustment between pithouses constructed as adjoining rooms of a group and solid walls extending up above the ground level. Consideration of all the walls excavated to date in the substructure of Bc50 makes it possible to separate out a number of types of walls. The division into types, of course, is theoretical, a matter of convenience for classification of data, a grouping in which some individual variation is allowed within each class. Within a period of flux there might be an attempt to follow an ideal conceptualized type, but with changing ideas in the minds of the people the number of variations upon this type might be so great as to almost obscure the fact that an idea was being followed.

During excavation it was thought that an ideal type might be represented by that here listed as Slab Lined Pit with Rubble (Plate XV, a.) Apparently the pueblo masons were attempting to build solid walls of some sort. As the transition occurred from slab-lined pithouses separated from each other to rooms which adjoined each other, a number of experiments in types of wall were produced. We do not know precisely what went on in the minds of the masons, but, by inference from the diversity of methods of wall construction, we can postulate lack of unity in the idea of the most practical method of building for their purpose.

In general, the rooms of substructure 7 were excavated to a varying depth into the surface of a low rise. (Fig. 1.) The pits thus formed were then lined with slabs. Upon the top of these slabs and the side of the pit, using them as a foundation, was placed a rubble wall. There is no conclusive evidence as to what was the exact average height of the walls in the substructure, but as pointed out in the discussion of the south wall of substructure 7, that wall may be estimated as about seven feet high.

Slab Lined Pit (Plate XIV, a.)

It is quite possible that separation of this type is of use only in representing an indeterminate type of wall which definitely had at its base a slab lined pit. Superimposed upon the top of the slab and the side of the pit could have been either rubble or adobe walls. There is some evidence that the east wall of substructure 7 may have had its upper part composed of adobe. In that case it has similarities to the adobe wall type considered in this study.

Slab Base Rubble (Plate XIV, b.)

Actually no wall fitting perfectly the criteria of this type appeared in the substructure. Very close approximation, however, was found in the north wall of substructure 4. This wall separating substructure 4 from substructure 7, had been built originally only as the north wall of substructure 4, and but for the position of substructure 7 would have been classified as Slab Lined Pit with Rubble. When substructure 7 was added to the unit structure, a pit was dug on the north side of this wall leaving it standing free. The north face was then plastered with

mud so that it rounded into the floor (Plate XV, a.) It is my contention that this type of wall represents a point of transition to the masonry wall of the type found in Feature 5 in the compartment partition. There would be little reason to attempt to construct walls which would stand free on the vertical slab base when the rubble wall would be more solid if built directly on the ground. Evidence of this principle will be seen in the discussion of the next type.

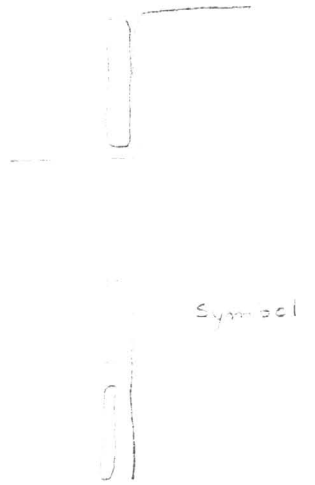
Rubble on Side of Pit (Plate XVI, a, b.)

The west wall of substructure 7 at the northern end consisted of an unlined pit wall topped by a rubble wall which rested entirely on the side of the pit. The building of such a wall might well have been an indication of the realization by the masons that the rubble wall rested more solidly on a dirt foundation than on the edge of a slab.



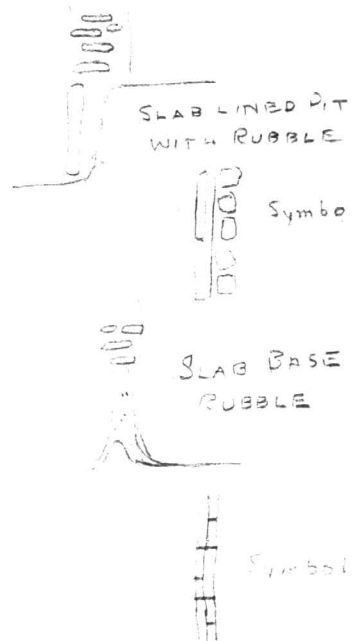
a

SLAB LINED PIT
(east wall of
Substr. 7, Bc 50)



b.

SLAB BASE RUBBLE
OR SLAB LINED PIT WITH
RUBBLE



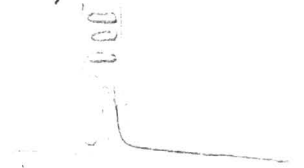
(north wall of
Substr. 4, Bc 50)



PLATE III

a

SLAB LINED PIT
WITH RUBBLE
(north wall Substr. A, Bc5)
(This portion of wall
shows how an original
SLAB LINED PIT WITH RUBBLE
was converted into
approximately a
free standing SLAB
BASE RUBBLE WALL by
the later addition of
a room.)



b.

SLAB LINED PIT
WITH RUBBLE
(-adjacent rooms
both slab lined with
rubble superimposed.
This might be
considered a subtype
of the SLAB LINED PIT
WITH RUBBLE with a
trend toward the
"ideal type" SLAB BASE
RUBBLE.)



(east wall of
Substr. A, Bc50)

PLATE VIII



a

RUBBLE ON
SIDE OF PIT



(west wall of
Substr. 7 Bc50)



b.

RUBBLE ON SIDE OF PIT
(west wall of
Substr. 7 Bc50)



Symbol

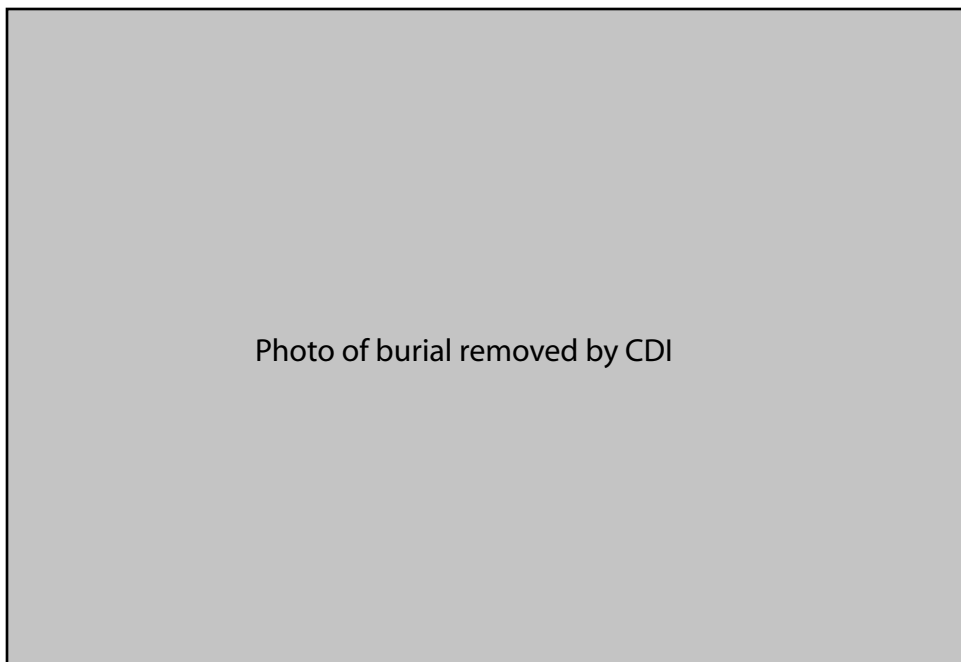


Fig. Narrow Block without Cope
(wall in Feature 5, Bc50; Compartment
wall and bin division)

Plate XVII



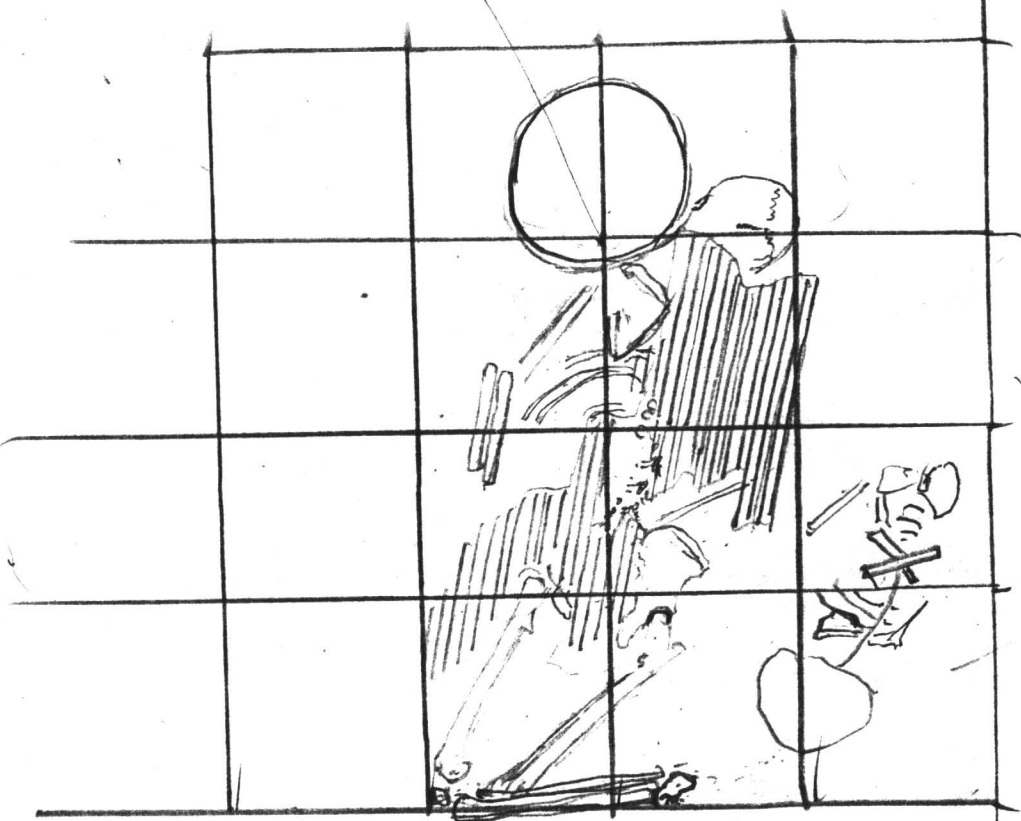
Bc 51 $\frac{60}{51}$



Bc 51 $\frac{60}{51}$

I-13

Bc 51 ⁶⁰/₅₁



51a

BURIALS

Only five burials, Bc51 60/51 through 60/55, were taken out in 1939, one of these consisting of a skull only, Bc51 60/55, and one of nothing more than part of a skull, Bc51 60/52, as indicated in the appended burial records. The entire skeleton of Bc51 60/54 was found, but the individual was too immature (12-15 years) for measurements on the bones to be of value. This left two skeletons only for measurement and physical anthropological observations and a total of three, including the immature individual, for study of burial customs. In the present discussion only burial customs and the accompanying artifacts will be considered, measurements and observations on the bones being available in the appended records.

Bc51 60/51

The position of the body of Bc51 60/51 and of the accompanying infant burial Bc51 60/51a are indicated on the grid, accompanying the burial records. The flexed body of an adult male had been placed in a pit excavated into Pueblo II debris accompanied by Pueblo II pottery (see descriptions of individual pieces) which would indicate that the burial had been made sometime during P II but not at the beginning of the period. Directly against the body was placed a feather robe, Bc51 35/40, as indicated by a typical net-like double twine foundation and by one remaining identifiable fragment of a feather. (See Riker specimen #1.) It might be argued that one feather might not make a feather robe, but the fact that other similar net-like double twined

foundations in which several small pieces of feathers could be identified were found in the 1937 burial excavations would appear to warrant the deduction that feather robes were customarily used for wrapping the body for burial. Similar complete robes were found around Basketmaker burials of northeastern Arizona¹ and around burials of Aztec, New Mexico.² The net-like foundation of the robe accompanying Bc51 60/51 was uncovered by careful dusting with fine burshes and showed clearly, although much of it was too fragile to be removed from the ground even after preservation with Alvar. The squares averaged $\frac{3}{4}$ inch on the side. The selvedge *selvedge* showed a heavy twisted cord edge. The foundation cord was approximately $\frac{1}{16}$ inch in thickness, and twists of the double twine, Bc51 35/44, were approximately $\frac{3}{16}$ inch apart. The robe appeared to have been placed around the body and pulled together in the front, for the specimen of selvedge edge saved was directly under the face of the individual who had been placed face downward in the grave.

The impression of what appeared to be a piece of cotton cloth was found just below the chin. Many of the mummies in the caves of northeastern Arizona³ have been found with folded cotton cloth placed over the face or part of the face.

Under the head were the remains of a narrow twilled mat, Bc 51 35/45, which had been doubled up to make a pad about an inch thick. Identification of this material as a piece of twilled matting was unquestionable when it had been carefully dusted.

¹Kidder and Guernsey, Basketmaker Caves in Northeastern Arizona, Peabody Papers, vol. 8, no. 2., 1921.

²Earl Morris, Archaeological Work in the Ackmen-Lowry Area, Southwestern Arizona, Carnegie Institution Publication no. 519, 1939.

³Kidder and Guernsey, op. cit.

Surrounding the whole body and enclosing the supposed piece of cotton cloth and the mat under the head was a wide twilled mat, Bc51 35/42, made of reeds about $\frac{1}{2}$ inch in width. A third reed mat with diagonal plaiting covered a part of the body, but its exact extent was impossible to follow because it was so largely decomposed. The reeds of these mats were held together by a baste fibre cord piercing the individual reeds, which were $\frac{1}{4}$ inch in width. (See Plate XVII.)

Near the bones was considerable dark material which appeared to be organic and which might have been dessicated tissue.

Over the entire grave had been placed a split reed mat similar to the Plains mattresses. The reeds (Equisetum,) Bc51 35/43, averaged $\frac{3}{4}$ inch in diameter. It averaged about $2\frac{1}{2}$ feet wide and extended even over the vessel that had been placed at the head of the body. A large portion of this mat was preserved with Alvar and was removed; when the under side was cleaned off in the laboratory, portions of the network foundation of the supposed feather robe adhered to the reeds.

The vessels at the head consisted of one Gallup Black on White bowl (Bc51 10/107) decorated on the interior with two horizontal strap handles, nested inside of a bowl of Winona Smudged, Bc51 10/113, measuring $10\frac{1}{2}$ by $4\frac{3}{4}$ inches. This Winona Smudged bowl was very fragile, and its surface flaked in drying. It was preserved by being soaked in thin Alvar before it was reconstructed. Inside the Gallup bowl was a small coiled single rod basket, Bc51 35/41, with 3 inch radius and $1\frac{1}{4}$ inch height. When uncovered this basket appeared a wine red, perhaps due to some dye used on the material or perhaps to decay. No paint could be seen. The basket was in a very fragile condition and only partly

present when first found. It was preserved with Alvar and about a third of the whole was saved.

Inside the basket was a small Gallup Black on White pitcher, Bc51 10/105, measuring $3 \frac{3}{4}$ inches in height, $2 \frac{1}{2}$ inches in diameter at the widest part of the body, and $1 \frac{1}{2}$ inches diameter at the mouth.

Ten pumpkin seeds and some pinyon hulls were removed from the sandy fill in the nest of bowls.

Just to the south side of the group of bowls lay a "bird vessel," Bc51 10/112, the body being that of a bird but neither head nor feet being indicated. This, like the other black on white vessels, was classified as Gallup Black on White. It measured 7 inches long by $4 \frac{3}{4}$ inches high at the bottle neck.

To the south of the body of the skeleton and a few inches above the level of the bones were three "pahos," Bc51 35/8, cottonwood sticks averaging $7 \frac{1}{2}$ inches long and 1 inch in diameter. The sides were smoothed and the ends neatly flattened and the edges rounded. All three were in fragile condition with the surfaces more or less decayed away, but the best of the group showed a strip of turquoise blue paint at one end, which suggested that the others had been similarly striped. These resemble the "pahos," prayer sticks, from the Upper Gila, as described by Hough in Bulletin 35, B.A.E. The mats covering the body were partly preserved on one of the pahos.

Accompanying this burial were also one side and part of a handle, Bc51 10/102, of a pottery ladle of Gallup Black on White, found $4 \frac{1}{2}$ inches north of stake J13; less than one half of a Gallup Black on White bowl,

Bc51 10/107, 9 3/4 inches in diameter and 3 3/4 inches deep, decorated on the interior and with two small horizontal handles on the exterior.

Stone objects found in the burial consisted of a much worn and pitted gray sandstone mano, Bc51 20/396, located in the burial fill; a whole sharpener, Bc51 20/404, of orange-gray sandstone, 2 1/2 inches long by 2 inches wide, crossed with two grooves; turquoise bead, Bc51 20/405, 1/8 inch wide and 1/32 inch thick; another turquoise bead, Bc51 20/406, 1/8 inch wide; and one piece of broken stone pendant, Bc51 20/407, apparently lignite, 5/8 by 1/2 inch.

Bone material found consisted of a bone gouge, Bc51 30/170, 1 5/8 inches long and 1/4 inch wide, splintered at one end; and a bone chisel or flesher, Bc51 30/171, 4 1/2 inches long and 3/4 inch wide, in good condition.

Approximately opposite the pelvis of Bc51 60/51, were the flexed remains of a child, probably under six years of age. Buds of the premolars were ready for eruption. Most of the individual bones were present, but they were in such poor condition that they were scarcely worth preservation. As many as could be saved were retained. It appeared that this child burial probably had been made in association with the adult Bc51 60/51. There were no accompanying ornaments, bits of food material, or pottery. Two sticks which might possibly have been artifacts were found crossed above the thoracic region. The body had been covered with a wide twill matting and with what probably had been feather cloth. Both matting and this other material were in very bad condition so that definite identification of the latter could not be made.

Bc51 60/52

Bc51 60/52 consisted of nothing but the portion of a cranium ?
in fair condition.

Bc51 60/53

Bc51 60/53 was the almost complete skeleton of an adult middle-aged female. She was lying on her left side facing north. Accompanying her was a skeleton of a baby which led to the suggestion that she might have died in childbirth. A sketch of this burial in situ will be found on the burial and skeletal records for the individual. Accompanying her were found nothing but a fragment of matting, one large sherd, Bc51 10/117, Exuberant corrugated ware, and a fragment of what seems to be part of a pot lid, Bc51 20/432. The grave had been dug into refuse material of Pueblo II, and the large shard accompanying the burial suggests that the burial itself belong to P II. The body was facing downward in the grave. Measurements and observations on the bones will be found in the accompanying sheets of measurements and indices.

Bc51 50/54

Bc51 50/54 consisted of the entire skeleton of an immature individual flexed and lying on its left side in a grave excavated into refuse material of P II. Its exact location is indicated by the sketch of burial in situ on the burial blank. Nothing accompanied this burial except eight fragments of a broken vessel of Deadman's Black on White. The vessel was

not restorable. Deadman's Black on White has been found in association with other material of the complex of P I and of P II so that assigning this skeleton to ^{any} period by fragments of the one piece of pottery is impossible.

Bc51 60/55

Bc51 60/55 consisted of only the skull of an adult male found in refuse fill. The remainder of the burial was left to be excavated next season. Five inches to the south side of the skull was found a small broken vase, Bc51 10/115, of Exuberant corrugated ware.

The only conclusion that can be drawn from these few burials is that the the hypothesis of a custom of flexing adult burials and wrapping them in feather cloth and matting, as surmised from the past two seasons' work at Bc50 and 51, seem to be born out.

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BURIAL AND SKELETAL RECORD

Burial No. BC51 ⁶⁰/₅₅

Number of sacks of bones 1

Skeletal Material: Skull only

Sex Male Age Adult

Condition: Fine _____ Good _____ Fair Poor _____ Decomposed _____

General appearance _____ Color _____

Individual bones, condition and anatomical details:

Cranium Mandible

Hyoid _____

Vertebrae: Cervical _____ Dorsal _____ Lumbar _____

Sacrum _____ Coccyx _____

Clavicles _____ Scapulae _____

Humeri _____

Radii _____ Ulnae _____

Hand bones _____

Sternum _____ Ribs _____

Osa Innominata _____

Femora _____ Patellae _____

Tibiae _____ Fibulae _____

Foot bones _____

Associated organic material _____

Remarks: Skull only removed.

Site BC51 Refuse Mound Date of Removal Aug. 24, 1939 Burial No. BC51 $\frac{60}{55}$
 Season Aug. 1939 Catalog No. -
 (C) Excavation Record—Mortuary Supervised by Senter
 Location Refuse mound - ? Removed by Bell
 Chart: Stake No. _____ South _____ East _____ Depth _____ Sacked by Bell
 Character and condition of soil Refuse fill
 Position of skeleton: _____ Photograph by Jones
 Orientation _____ Facing South Length of grave _____
 Flexion: Completely _____ Right-angle _____ Extended _____
 Type of Burial: Simple excavation Stone protection _____
 Cist _____ Under floor _____ Sealed _____

Remarks:

Sketch of burial in situ.

Skull only removed - to be excavated next season

Accompanying materials and location:

Number of bags 1

Turned over to Laboratory

Pottery: No. 1, Descriptions small vase - damaged

and _____ Sketches of Designs: Ex ub. corrugated. BC51 $\frac{10}{115}$

Artifacts: No. _____

Ornaments: No. _____

Food material _____

Fabrics: No. _____

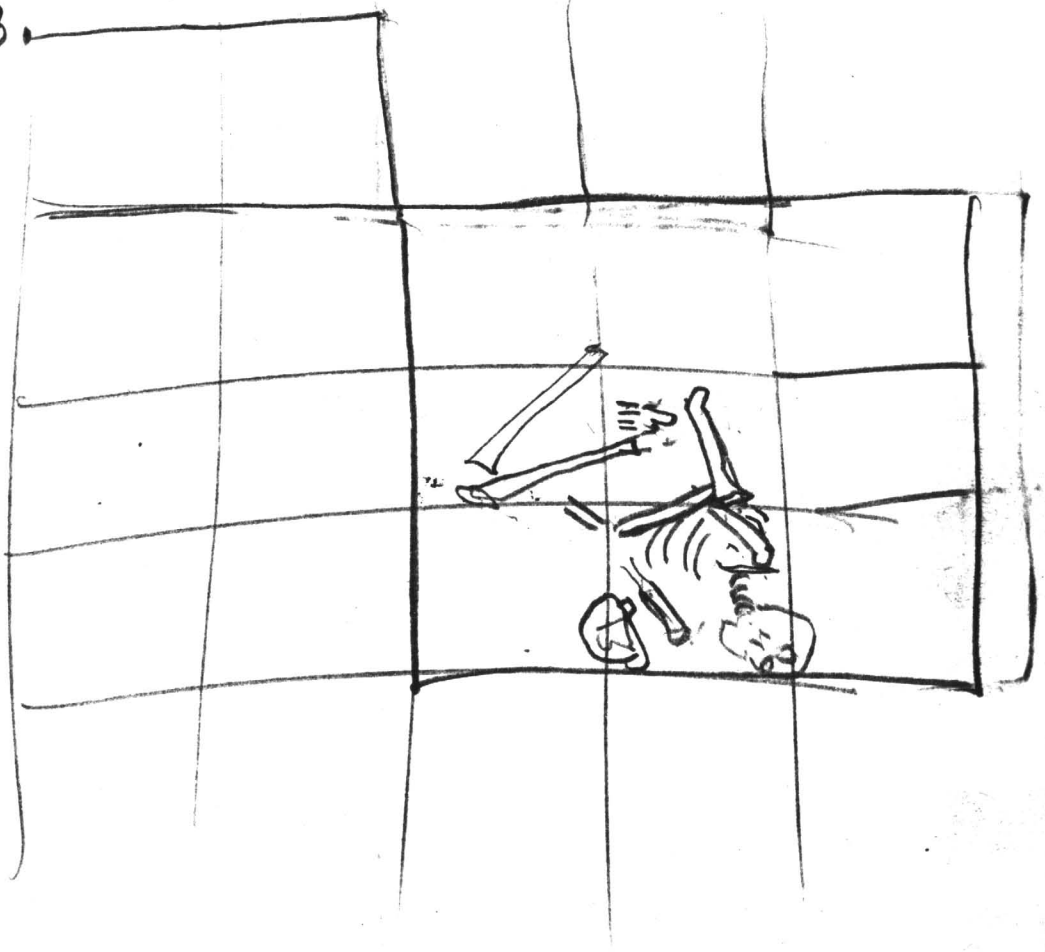
Remarks:

*Pottery vase located 5" to S side of skull -
 photographed in situ by Jones*

BCSI 60/54

N ←

J13.



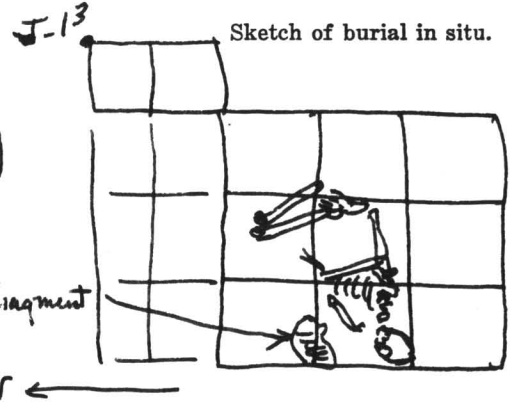
Site BC51 Refuse Mound Date of Removal Aug. 24, 1939 Burial No. BC51 ⁶⁰/₅₄
 Season Aug. 1939 Catalog No. —

(C) Excavation Record—Mortuary

Location Refuse mound Supervised by Senter
 Chart: Stake No. J-13 South East _____ Depth 15" Removed by Bell & Fischer
 Sacked by Fischer
 Character and condition of soil Refuse material
 Position of skeleton: Flayed on left side Photograph by Jones
 Orientation Facing north-E.W. Facing North Length of grave 2 1/2 feet
 Flexion: Completely _____ Right-angle Extended _____
 Type of Burial: Simple excavation Stone protection _____
 Cist _____ Under floor _____ Sealed _____

Remarks:

Immature,
Frontal bone elevation - 5.5 (Jones)
Reference to station #1



Number of bags _____

Accompanying materials and location:

Pottery: No. 8 frag. of one, Descriptions broken pot of Deadwars B/W.
 and _____ Sketches of Designs: Not Notatable.
 Turned over to Laboratory

Artifacts: No. _____

Ornaments: No. _____

Food material _____

Fabrics: No. _____

Remarks:

BURIAL AND SKELETAL RECORD

Burial No. BC51 ⁶⁰/₅₄

Number of sacks of bones ?

Skeletal Material: Entire skeleton Sex ? Age Immature

Condition: Fine _____ Good Fair _____ Poor _____ Decomposed _____

General appearance _____ Color _____

Individual bones, condition and anatomical details:

Cranium Crushed Mandible broken

Hyoid _____

Vertebrae: Cervical _____ Dorsal _____ Lumbar _____

Sacrum _____ Coccyx _____

Clavicles _____ Scapulae _____

Humeri _____

Radii _____ Ulnae _____

Hand bones _____

Sternum _____ Ribs _____

Osa Innominata _____

Femora _____ Patellae _____

Tibiae _____ Fibulae _____

Foot bones _____

Associated organic material _____

Remarks: Immature skeleton - 12 to 15 years.

Site BC51 Refuse Mound Date of Removal Aug. 25, 1939 Burial No. BC50 ⁶⁰ 53
 Season Aug. 1939 Catalog No. _____

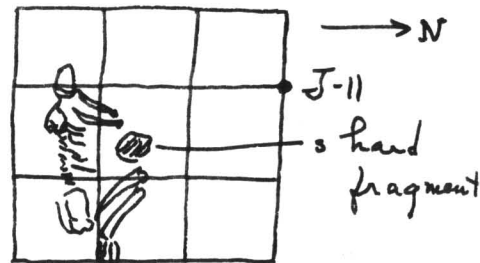
(C) Excavation Record—Mortuary

Location Refuse mound - J-11 Supervised by Senter
 Chart: Stake No. J-11 South 2' East 2' Depth 8" Removed by Bell + Santa Cruz
 Character and condition of soil Refuse material Sacked by Bell
 Position of skeleton: oriented west-flewed Photograph by Jones
 Orientation West Facing downward-N. Length of grave 2 1/2'
 Flexion: Completely _____ Right-angle Extended _____
 Type of Burial: Simple excavation Stone protection _____
 Cist _____ Under floor _____ Sealed _____

Remarks:

Baby skeleton in association,
 probable death from child birth.
 Lying on left side facing N.
 Impacted 3rd molar

Sketch of burial in situ.



Frontal bone elevation (Jones) 6.4-reference to station #1
 Bones measured- see sheets.

Number of bags 1

Accompanying materials and location:

Turned over to Laboratory

Pottery: No. 1 shard, Descriptions large shard Cy mb. corrugated. BC51 ¹ 11

and _____ Sketches of Designs:

Artifacts: No. - fragment of palette pot lid BC51 ²⁰ 432

Ornaments: No. _____

Food material _____

Fabrics: No. fragment of matting.

Remarks:

BURIAL AND SKELETAL RECORD

Burial No. BC 51 ⁶⁰ 53

Number of sacks of bones ?

Skeletal Material: almost complete

Sex Female Age adult-middle age

Condition: Fine _____ Good _____ Fair Poor _____ Decomposed _____

General appearance Fair Color —

Individual bones, condition and anatomical details:

Cranium Broken upon removal Mandible Fair

Hyoid Missing

Vertebrae: Cervical O.K. Dorsal O.K. Lumbar O.K.

Sacrum Broken Coccyx Decomposed

Clavicles Scapulae

Humeri

Radii Ulnae

Hand bones

Sternum Ribs

Osa Innominata

Femora Patellae

Tibiae Fibulae

Foot bones

Associated organic material Small textile fragment

Remarks: Baby skeleton in association.

Site Bc 51 Date of Removal 1939 Burial No. $\frac{60}{52}$

Season _____ Catalog No. _____

(C) Excavation Record—Mortuary Supervised by _____

Location _____ Removed by _____

Chart: Stake No. _____ South _____ East _____ Depth _____ Sacked by _____

Character and condition of soil _____

Position of skeleton: _____ Photograph by _____

Orientation _____ Facing _____ Length of grave _____

Flexion: Completely _____ Right-angle _____ Extended _____

Type of Burial: Simple excavation _____ Stone protection _____

Cist _____ Under floor _____ Sealed _____

Remarks: _____ Sketch of burial in situ.

Number of bags _____

Accompanying materials and location: _____ Turned over to _____

Pottery: No. _____, Descriptions _____

and _____ Sketches of Designs: _____

Artifacts: No. _____

Ornaments: No. _____

Food material _____

Fabrics: No. _____

Remarks: _____

Site Bc 51 Date of Removal Aug 21, 1939 Burial No. Bc 51⁶⁰ 51a
Season 1939 Catalog No. _____

(C) Excavation Record—Mortuary

Supervised by Seiter

Location Sq I-13 Removed by "

Chart: Stake No. _____ South _____ East _____ Depth Skull 2' 3.5" below T-15 stake Sacked by "

Character and condition of soil sandy dump

Position of skeleton: left side Photograph by Jones

Orientation east Facing south Length of grave c. 2'

Flexion: Completely Right-angle _____ Extended _____

Type of Burial: Simple excavation Stone protection _____

Cist _____ Under floor _____ Sealed _____

Remarks:

Sketch of burial in situ.

prob. in assoc. with
Bc 51⁶⁰/₅₁ at time of
burial.



Number of bags _____

Accompanying materials and location:

Turned over to _____

Pottery: No. _____, Descriptions none

and _____ Sketches of Designs:

Artifacts: No. none two sticks crossed above thoracic region

Ornaments: No. none

Food material none

Fabrics: No. wide twilled matting, feather cloth

Remarks:

matting in very bad condition.
feather cloth barely perceptible.
small sample of each preserved.

UNIVERSITY OF NEW MEXICO

ANTHROPOLOGY DEPARTMENT

BURIAL AND SKELETAL RECORD

Burial No. Bc 51 ⁶⁰/_{51a}

Number of sacks of bones 1

Skeletal Material:

Sex Age under 6
but buds
for premolars
Decomposed ready

Condition: Fine _____ Good _____ Fair _____ Poor

General appearance _____ Color _____

Individual bones, condition and anatomical details: mostly present but in
such poor condition that not
Cranium _____ Mandible
worth preservation.
Hyoid _____

Vertebrae: Cervical _____ Dorsal _____ Lumbar _____

Sacrum _____ Coccyx _____

Clavicles _____ Scapulae _____

Humeri _____

Radii _____ Ulnae _____

Hand bones _____

Sternum _____ Ribs _____

Osa Innominata _____

Femora _____ Patellae _____

Tibiae _____ Fibulae _____

Foot bones _____

Associated organic material _____

Remarks: probably in association with Bc 51 ⁶⁰/₅₁

BURIAL AND SKELETAL RECORD

Burial No. Bc51 ⁶⁰/₅₇

Number of sacks of bones _____

Skeletal Material:

Sex male Age _____

Condition: Fine _____ Good _____ Fair Poor _____ Decomposed _____

General appearance _____ Color _____

Individual bones, condition and anatomical details:

Cranium left side broken Mandible broken at symphysis

Hyoid X

Vertebrae: Cervical good Dorsal poor Lumbar poor

Sacrum good Coccyx good

Clavicles good Scapulae right broken

Humeri broken

Radii broken Ulnae broken

Hand bones

Sternum Ribs

Osa Innominata inferior pubic ramus broken

Femora good, left condyles chalky Patellae

Tibiae good Fibulae broken

Foot bones

Associated organic material considerable dessicated tissue; pieces in skull of dried tissue.

Remarks: Skeleton intact but impossible to save from breakage in time available.

Site Bc51 Date of Removal Aug 21, 1939 Burial No. 60/51
 Season 1939 Catalog No. _____

(C) Excavation Record—Mortuary

Location Sq. I 11 + I 13 Supervised by Senter
 Chart: Stake No. _____ South _____ East _____ Depth _____ Removed by Senter +
 Sacked by Senter +

Character and condition of soil Sandy dump

Position of skeleton: _____ Photographs by Jones

Orientation West Facing downward Length of grave 4"

Flexion: Completely _____ Right-angle _____ Extended Femora extended
knees

Type of Burial: Simple excavation Stone protection _____

Cist _____ Under floor _____ Sealed _____

Remarks: _____ Sketch of burial in situ.

body placed in pit into
 PII material & accompanied w
 PII pottery. Body wrapped in
 feather robe, then wide twilled
 matting. There was a folded
 narrow twilled mat under the
 head. ~~There~~ within the cover of
 wide twilled. Near the bones
 appeared considerable organic
 material presumably desiccated tissue



Accompanying materials and location:
 The whole body was covered by branches of brush.
 pierced reed mattress and _____ Turned over to _____
 Pottery: No. _____, Descriptions 4 vessels: 2 bowls, 2 bottles.

and _____ Sketches of Designs: broken pot above burial, placed at head.

Artifacts: No. (bone flesher, above) two worked sticks on

Ornaments: No. set ornament (?) south side of pit side by side, no indication of function.

Food material pinon hulls, squash seeds

Fabrics: No. split reed mattress, narrow twilled matting,

Remarks: wide twilled matting, checker board matting, feather cloth. Basket, one rod coiled basket.

held together by bark fibre cord which pierced the individual reeds →

Pot numbers, see catalog cards see photo
 For this burial $\frac{10}{21} - \frac{10}{112}, \frac{20}{20}, \frac{20}{20}, \frac{20}{20}, \frac{30}{170} - \frac{30}{171}, \frac{35}{40} - \frac{35}{45}, \frac{32}{8}$