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EIGHTEENTH CENTURY NAVAHO HOGANS FROM CANYON DE CHELLY NATIONAL MONUMENT

WESLEY R. HURT, JR.

ARCHAEOLOGICAL reconnaissance during the summer of 1941 at Canyon de Chelly National Monument disclosed the location of two groups of Navaho hogans built in 1758, 1766, and 1770.[1] The significance of these dwellings lies in the fact that they definitely establish Navaho occupation of the area west of the Chuska Mountains in the middle of the eighteenth century. In addition to the early dates and the architectural details, the sites produced a large series of Navaho painted sherds and several glass trade beads.

Canyon de Chelly is located in the approximate center of the Navaho Reservation, on the west side of the Defiance Plateau, in northeastern Arizona. The first group of hogans, the Spider Rock hogans, lay at a distance of 2.7 miles from the Chinle-Defiance road, along the small spur going to the Spider Rock Overlook; the second group was situated further along this by-road at a distance of 3.3 miles from the road. The first site included three conical hogans, a sweat house, and several areas of refuse; the second contained a six-sided,[2] a conical and a possible square hogan. Associated with the first hogan group was a small Developmental Pueblo ruin, located at a distance of some 150 feet to the northwest, while .3 of a mile further north on the road was another small pueblo ruin. Near the latter was another sweat house that did not appear to be very old, since the dirt covering was still present. Surrounding the old hogans was a thick pinyon-juniper forest associated with sage and rabbitbrush.

In the first group of hogans, all of which dated 1758, one structure, No. 1, was still standing, giving a good impression of the type of house construction during that period. It was of the "pile stick" or conical hogan type, called *xòyan? ałci? adezt?* by the Navahos. Three interlocked poles, oriented north, south, and west, were used as the main building supports, and on top of them to the east was placed the two

[1] Harold S. Gladwin, personal communication August 17, 1941. I wish to express my great appreciation to Charles D. Wyatt, Custodian of Canyon de Chelly National Monument, for the opportunity to investigate the hogan sites; to Harold S. Gladwin and Deric Nusbaum of Gila Pueblo for dating the wood specimens; to A. Wetmore, C. W. Gilmore, and Kellog of the United States National Museum for identifying the bones; to Arthur Woodward of the Los Angeles Museum for identifying the beads; to Leland C. Wyman for visiting and checking the sites; and to Richard Van Valkenburgh for his valuable suggestions.

[2] This hogan had only five wooden sides, but if the doorway is considered as another side, it would be classified as a six-sided hogan.

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door poles. The method of supporting the door lintels is a matter of conjecture; all wood of this type had fallen away. In the interior of the hogan, two large stones[3] were to the sides of the door, while by the north post stood a short, thick log. Over the tripod support and door posts was laid a covering of juniper and pinyon poles which had been cut by means of an ax and stripped of bark. A few of the poles also had roughly-hewn sides. The presence of several large logs in front of the door probably indicated that an antechamber had been present. The floor was excavated to a depth of about a foot, forming a pit.[4] Some two feet from the door, in the midline of the hogan, was a shallow basin, six inches at its greatest depth and two feet four inches in diameter, filled with white ash and undoubtedly the fireplace.[5] No other features were found in the interior, even the conventional dirt bank and mealing bins being absent.[6] One Navaho polychrome sherd and a few animal bones were the only artifacts uncovered in the room debris. The hogan measured 46 feet in circumference, 13 feet in north-south diameter, 16 feet east-west, and stood five feet ten inches on the inside and six feet five inches on the outside. The door at the base was two feet wide. (Pl. III, facing p. 104.)

Thirty-five feet to the north lay a fallen structure, of the conical type, which differed from Hogan No. 1 in that it had four large rocks placed by the north door post and three by the south door post instead of only one at each side. This hogan, No. 2, measured 44 feet in circumference, 15 feet long (east-west), and 13 feet wide (north-south). At the time of the investigation, the structure stood only three feet high. Adjacent on the east was another fallen conical hogan, No. 3. Since the poles of the latter dwelling were widely scattered, it was impossible to make an accurate estimate of its size. All in all, the logs covered an area measuring 25 feet north-south and 31 feet east-west. The floor was excavated to the depth of one and one-half feet. It was noticeable that all the hogans described in this paper were longer east-west than north-south.

Ninety-one feet to the southwest of No. 1, was a large circular refuse area that measured four feet four inches in width (east-west) and 14 feet in length (north-south). The surface of the debris lay flush with the

[3] This feature was noted by Keur in the forked-stick hogans of Big Bead Mesa (1941, p. 21).

[4] The Tipi type of hogan described by Page (1937*b*, Pl. IV) showed the presence of pit floor.

[5] The presence of a fire pit off center toward the doorway was noted by V. Mindeleff (1898, p. 493) and Keur (1941, p. 31).

[6] Van Valkenburgh mentions the mealing bins as being a common feature in the Dinexta forked stick hogans (1941, p. 9). Keur notes the presence of the bins in the hogan ruins of Big Bead Mesa (1941, p. 34).

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gound level and was bare of vegetation. It was comprised of from three to ten inches of unstratified animal bones, charcoal, burnt stones, ash, broken manos, squash seeds, flint chips, and painted and plain sherds. Judging from the contents, the area was a place where kitchen refuse was dumped; no posts or post holes were found to indicate that the area was a summer shelter. Along the east side of the hogans was another series of refuse areas on which were found many sherds. Some 200 feet northeast of Hogan No. 1, in the heavy forest, stood a small sweat house, three feet high, 21 feet in circumference, six feet north-south, and seven feet east-west. The inside had been filled with charcoal to a depth that made entrance impossible. Wyman suggests that the ash may have been deposited in the sweat house as a part of a ceremony.[7] On the north and east sides of this structure were large piles of burnt sandstone. In a line to the northeast of Hogan No. 3, at distances of 24 and 114 feet, were two piles of pure ash which, according to Wyman, may represent some of the ceremonial ash deposits.

The second group of Spider Rock hogans lay six-tenths of a mile to the north of the first hogan and along the same road. In this series, structure No. 4, dated 1766, was a fallen conical hogan larger than Nos. 1–3: 63 feet in circumference, 21 feet east-west, and 18 feet north-south. The main supporting timbers of this hogan were roughly hewn. Several broken manos and the tip of a rusted iron scythe were found near this dwelling. A few feet to the southeast was an ash pile in which were uncovered many animal bones and sherds of plain utility ware, painted pottery being absent.

Twenty feet on the other side of the road, to the west, were the foundational logs of a six-sided hogan, dated 1770. It was made of logs, laid one on top of the other, and covered with what might formerly have been a cribbed roof, although no roofing timbers were present. The door was one foot 10 inches wide and each of the side walls measured approximately nine feet long. The former feature was on the east side, as were the doors of all the Spider Rock hogans. The floor was excavated to the depth of about a foot.

Thirty feet to the north of Hogan No. 4 was a u-shaped structure comprised of five large logs, covering an area approximately 18 feet east-west and 10 feet north-south, with the south side open. Since two of the timbers were superimposed upon two other logs, the structure gave the appearance of having been the base of a four-sided hogan. The wood was so badly rotted that no dates were obtained from this structure, but its association with the other two hogans established its erection between the years 1766 and 1770.

[7] Leland C. Wyman, personal communication, August 24, 1941.

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One arrowpoint was represented in the series of artifacts found at the refuse area to the southwest of the first hogan group. It had a corner-notched base and fine chipping, and measured 28 mm long, 2 mm wide, and 3 mm thick. It is possible that the arrow point was not of Navaho make, but had been picked up at the nearby Developmental Pueblo ruin and reutilized. One hundred and seventy-eight sherds were also found in this area. They were arbitrarily classified as: (1) Polychrome, 49 sherds from one restorable vessel, 17 sherds from another bowl, and two pieces from a third vessel; (2) Reddish-Brown-on-Buff, seven sherds from one bowl, two from another, and three miscellaneous sherds; (3) Painted Ware with Decoration lacking, 11 sherds; (4) Black Utility Ware, 98 sherds; and (5) one sherd resembling Jeddito Black on Yellow.[8] The other refuse areas near the first hogan group also produced a series of painted and plain utility sherds of the same types mentioned above. At the second hogan group, only the plain utility wares were found.

The painted sherds were all of the same basic type, with two main subdivisions, polychrome and reddish-brown-on-buff. The paste is not homogeneous, has rough fracture, is hard, and varies in color from gray, red, orange, buff, to brown. Crushed sherds, very large in some of the examples, were used as temper. Walls varied from 3 to 6 mm. The exterior was scraped with corncobs, the marks of which were apparent on many of the specimens. On the surface of a few were pits caused by the temper falling out during the process of scraping, while other vessels had a smoothed surface with firing clouds present. The interior surface was smoothed but not highly polished, no slip on most specimens, color varying from buff, red, brown, orange, or gray. Rims were rounded, squared, or slightly lipped. Deep and shallow bowls were present. All pieces were coiled and there were two types of design, the polychrome and the monochrome. The two-toned type consisted of a reddish-brown design outlined by a brown border line on some examples, and, on others, simply distinct figures of these two colors; the monochrome type usually had reddish-brown figures. On the top and exterior of the rim was an encircling band, while on the interior the band was broken in one place. On the interior base of the bowl was usually a complete design element of checkerboards, stars, and triangles from which might radiate pointed figures. Triangles and stepped elements were often suspended from the rim bands. Only geometric rectilinear figures were represented.[9]

[8] Twenty-two sherds found at the Big Bead Mesa hogans are described as Hopi-like ware by Keur (1941, p. 50).

[9] The occurrence of life designs on Navaho painted pottery was noted by the Franciscan Fathers (1910, p. 286). Tschopik illustrates many modern painted pots with life designs (1941, Pls. XII, XIII, XIV).

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Several examples of Navaho painted ware have been found in other localities in the Canyon de Chelly area.[10] The writer picked up painted sherds on the rim near Three Turkey House, by the Antelope Point Overlook, and on a Pueblo ruin in Canyon del Muerto. The plain utility ware was plentiful in the refuse areas of many of the ruined hogans of the de Chelly area, both ancient and modern. This type of pottery was not easily distinguished from that made by the Navahos in other parts of the Reservation.[11] Only in the matter of form and decoration might the de Chelly utility ware be divided into sub-types. The pots varied in shape, from a squat vessel with a rounded bottom to a tall variety with an almost conical base. Near the rim of many of these vessels was a meandering fillet with diagonal or circular incisions, while on others only the incisions were present. A few of the utility vessels lacked any form of decoration.

To gain additional information on Navaho painted pottery, the writer had an old Indian woman in Canyon de Chelly make five vessels. She was the only woman in the area who could still make the pottery, having learned the art from her mother, who in turn learned it from the grandmother.[12] Questioned as to the source of the art, she said her grandmother had told her that the Navahos derived the idea of making painted pottery from the sherds found on the Anasazi ruins.[13] Although she did not regularly make painted pottery, she was glad to do so for remuneration. Several of the de Chelly informants stated that it was not their custom to make over three pots a year; but this fact did not seem to perturb the squaw. Furthermore, she stated that she had made as many as nine of the cooking pots at one time. She stated that the only regular use for the painted pottery at the time was in certain ceremonies performed by the *xata'li*, or medicine man.[14] At the time the writer ordered the pottery, one of the *xata'li* took advantage of the opportunity and had a vessel made. The Navaho woman did not permit anyone to watch her make the pottery, holding to the superstition that unless the vessels were made in secret they would fall apart during the process of

[10] The description of the three Navaho Polychrome sherds found at Big Bead Mesa (Keur, 1941, p. 48) agree on the whole with those at Spider Rock.

[11] The utility ware described by Hill (1937, pp. 11–17) and Keur (1941, pp. 46–47) agrees in the main details with that of the Spider Rock hogans.

[12] Tschopik states that the grandmother was more often the teacher (1941, p. 46).

[13] This statement is not in accordance with the more logical hypothesis that the germ of the Navaho painted pottery was derived from the historic Pueblo wares. The fact that Malcolm (1939, pp. 13–15) and Keur (1941, pp. 48–50) found many sherds of historic Pueblo ware lends support to the latter suggestion.

[14] Hill notes the use of painted Navaho bowls as medicine containers in some of the ceremonies (1937, p. 9).

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firing.[15] Accordingly, she retired to a secret locality on a mesa top, where sheep manure and firewood were available.

The clay was obtained for her south of Antelope Point Overlook, at a place where she declared the only suitable material in the de Chelly area was to be found. According to James N. Spuhler, who accompanied her son, Tule Bia, when he gathered the clay, no ritual was performed. The hole was covered when the work was finished. Mr. Bia and his mother explained the technique of pottery making in this manner: the clay, a hard blue variety, is placed in water and soaked until it is soft, when it is stirred, thoroughly mixed, and freed of lumps. Potsherds are then ground to bits on a stone and mixed with the clay.[16] When the mixture is of the right consistency, a small lump is molded by hand, forming the bottom of the vessel. Another bit of clay is then rolled into a sort of rope on a flat rock. This clay rope is attached to the basal portion and wound around and around until the vessel is formed. The roll is then pinched together and smoothed on the inside with a section of gourd, while the outer surface is scraped with a corncob until fairly smooth. When this work is completed, the vessel is placed in the sun and allowed to dry for about a day. The following morning, a green twig with a frayed end is used as a brush to apply the paint. For the reddish-brown paint, the dark core of a hematite concretion is ground to a powder on a stone. Then resin is placed in a pan, and melted over heat, when the pulverized mineral is stirred in. The paint is applied to the vessel while still warm. After the bowl is painted, it is placed in a smouldering, sheep manure fire where it is left until thoroughly baked. The pottery maker stated also that hot resin is applied on the utility ware after firing to prevent cracking.[17] Furthermore, she said, the application of resin and the lack of painted designs constitute the only major difference in the making of utility and painted wares.

The five vessels in the writer's possession are similar in appearance to those found in the ancient hogan sites. Four of them are deep bowls and the other is a spoon shaped like an open gourd dipper.[18] The designs are of two-toned reddish-brown figures applied on an orange-buff

[15] At Ramah one informant stated that it was all right for people to observe the grinding of the clay but not the actual construction of the vessels. Tschopik, 1941, p. 49

[16] Van Valkenburgh, who observed the pottery maker gathering sherds, stated that she gathered only undecorated ones, personal communication, September 3, 1941.

[17] This differs from the description given by the Franciscan Fathers, who state that the gum is placed on the pot before firing (1910, p. 288).

[18] The de Chelly potter stated that the spoon was used for eating. Among the Ramah Navaho the half-gourd-shaped vessel was used for drinking soup, water, boiled milk (Tschopik, 1941). The Franciscan Fathers mention that the earthen spoons and dippers were used for the purpose of dipping out liquids (1910, p. 286).

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background. Firing clouds are present, a characteristic common to the Spider Rock painted wares. Two major differences between the new and the old wares are the presence of life designs and a more brilliant paint on the former. Several conventionalized corn plants are represented among the design elements on the new pottery. The designs in other respects, such as the break in the rim band, the utilization of triangles,

FIG. 6.—Modern Navaho pottery from Canyon de Chelly.

and the central figures at the base, were similar to those found on the Spider Rock painted wares. The modern painted pottery of the de Chelly area was very well made but the designs were rather poorly executed.

Although the painted pottery from Canyon de Chelly resembled that of the Ramah area, there were also many differences both in the technique of construction and the final product. A few traits common to both regions were the following: (1) utilization of sherd temper, although Tschopik states there is no marked preference in the Ramah area;[19] (2) use of sheep manure for firing; (3) use of gourd and corncobs for scraping the vessels; (4) presence of firing clouds on the pottery; (5) application of design before firing;[20] (6) occurrence of life and geometric designs; and (7) the belief that the pottery will break during the process of firing if observed by an outsider. A few points of difference in the Ramah pottery complex were the following: (1) clay ground on stone; (2) use of Yucca juice for paint, also the utilization of cannel coal mixed with resin for black paint; (3) application of slip to the pots; (4) utilization of yucca for the paint brush; and (5) use of stone polishing tools.[21]

Three types of manos were associated with the Spider Rock hogan sites. One variety had a flat bottom, beveled top, and rectangular shape with rounded corners.[22] Although the top surface was beveled, this type

[19] Tschopik, 1941, p. 19.

[20] Tschopik also notes the occurrence of painting the vessels after firing (*Ibid.*, p. 10).

[21] The description of the Ramah pottery complex is from Tschopik, 1941.

[22] This type is represented at the Navaho sites on Big Bead Mesa (Keur, 1941, Fig. 5, No. 1).

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of mano was not very thick. Examples of the second group, however, were very thick, and had rounded corners, rectangular shape with flat bottom, and convex top. The last type had a flat bottom and top, and a rectangular form with rounded corners.[23] The majority of the manos were made of sandstone and may have been found at the nearby Developmental Pueblo ruin by the Navahos and re-utilized. One mano of the latter type was made of lava, a type of stone not observed in the de Chelly Pueblo ruins by the writer. Because of this fact, it has been classified as a Navaho-made mano.

Glass beads from the main refuse area of the Spider Rock hogans included two types: a minute globular shape, in white, blue, or green; and a cylindrical form colored black or pink on red. According to Woodward,[24] the beads were of a generic type that might be as old as 1758 or as late as, or later than, 1860. The mono-colored seed beads had been made in the form found at the Spider Rock sites for two or three hundred years. "The small red ones with the light pinkish exterior are of a type known as the Cornaline d'Allepo. They vary in size from tiny round ones . . . to large cylindrical beads. The exterior may be either a dull opaque brownish red or a translucent bright red. The interior ranges from white through pink and pale yellow. As a rule, the opaque reddish brown beads are older. The seventeenth and eighteenth century beads are usually this color. Late eighteenth century on through the nineteenth have the translucent red exterior. . . . Practically all of the beads of this type came from Murano, near Venice."[25] While it is not possible to state that the beads were definitely associated with the Spider Rock hogan sites, they gave every appearance of having been so associated.

Animal bones from the refuse areas near Hogan Group 1 included, according to Gilmore, modern horse (*Equus caballus*) represented by one upper cheek tooth and a few bone fragments; and modern deer (*Odocoileus hemionus?*) represented by skull and jaw parts, vertebrae ribs and numerous fragments. Those from the refuse areas by Hogan Group 2 included modern horse, represented by upper and lower teeth, fragments of skull, and sesamoid; and modern deer (Kellog says probably *Odocoileus hemionus*) represented by a portion of the right ramus with four teeth. It was from an aged individual. There were also a few undetermined fragments, probably deer.[26] In view of the fact that Rabal

[23] This mano is similar in appearance to another found at Big Bead Mesa (*ibid.*, Fig. 5, No. 2).

[24] Arthur Woodward, personal communication, September 24, 1941.

[25] *Ibid.*

[26] A. Wetmore and C. W. Gilmore, personal communications, September 11 and 12, 1941.

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mentions the occurrence of sheep and goats among the Navahos as early as 1744[27] and Keur reports sheep bones from the Big Bead Mesa sites,[28] it is noteworthy that only deer and horse bones were found in the Spider Rock hogans.

The date, 1758, places the construction of the Spider Rock hogans near the middle of Navaho occupation in the Southwest. Matthews estimates that the Navahos entered the area "between 500 and 700 years ago," and Hodge places the year at 1485,[29] though no archaeological evidence as yet confirms these early dates. The *Relaciones* of Father Geronimo Zarate-Salmeron, a history of Spanish activities between 1538 and 1629, places the Navahos in the *dinêtah* area as early as 1600.[30] Van Valkenburgh states that according to tree-ring dates, the Navaho were in this area, the northwestern portion of New Mexico, between 1715 and 1768.[31]

The first record of the Navaho penetration west of the Chuska Mountains is in a letter written by Governor Francisco Cuervo y Valdes at Santa Fe, on August 18, 1706, immediately after his campaign against the Navahos during that year.[32] He describes the province of the Navahos as "100 leagues north to south, on the north to the boundaries of the Yutas, Carlans, and Comanches, and 300 leagues from east to west, the boundary running through the Tewa and Keres and Jemez, Laguna, and Acoma, El Morro and Zuni, and the Hopi towns."[33] If the Navaho were present as far west as the Hopi villages, it is probable that they had penetrated Canyons de Chelly and del Muerto by that time.

The Cuervo y Valdes document and the date of 1758 from the Spider Rock hogans thus places the Navahos in Canyon de Chelly before they left the *dinêtah* area. It is noticeable that the year 1758 is the year of the last tree-ring date of Navaho occupation in Largo Canyon, a part of the *dinêtah* area.[34] The eighteenth century occupation of Canyon de Chelly is further confirmed by the map of Father Anastasio Dominquez and Silvestre Escalante, who made a tour or exploration from Santa Fe to Utah Lake in 1776.[35] Their map shows that the western boundary of the Navaho extended to the Chinle Valley, which runs at right angles to the mouth of Canyon de Chelly. At approximately the same time the Navaho were migrating westward from the *dinêtah* area to Canyon de Chelly, they were also moving southward into the area of the Big Bead Mesa. Keur estimates that they had entered the latter area by 1750.[36]

Judging from archaeological evidence, the de Chelly Navahos, as

[27] Hill, 1940, p. 397. [28] Keur, 1941, p. 46. [29] Hodge, 1895, p. 223.
[30] Amsden, 1934, p. 127 [31] Van Valkenburgh, 1941*b*, p. 9.
[32] Reed, 1941, p. 486, quoted from Hackett, 1937, pp. 381–383.
[33] *Ibid.*, p. 497. [34] Van Valkenburgh, 1941*b*, p. 9.
[35] Amsden, 1934, Pl. 57A. [36] Keur, 1941, p. 2.

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represented at the Spider Rock sites, were intimately related to the broad pattern of culture found in the *dinêtah* and the Big Bead Mesa areas. The presence of forked stick hogans, Navaho painted wares, Navaho utility wares, sweat houses, ash dumps, etc., indicated their common centers of origin. Because of the lack of published material on the *dinêtah* area, it is not possible as yet to state the differences in cultural traits between the Spider Rock and the *dinêtah* area. It was noteworthy, however, that Gobernador Polychrome, a ware characteristic of the *dinêtah* area, was not found in the Spider Rock sites. The latter differs also from the Big Bead Mesa sites in that it lacks stone fortifications and stone hogans,[37] mealing bins, historic Pueblo wares (with one exception), Gobernador Polychrome, and sheep bones.

SUMMARY

Near the Spider Rock Overlook in Canyon de Chelly, three groups of Navaho hogans, dated 1758, 1766, and 1770 respectively, were found during the summer of 1941. These dates confirm the Navaho occupation of Canyon de Chelly in the middle of the eighteenth century. With the exception of a six-sided hogan, and a possible four-sided one, the other structures were of the common forked stick type found in early Navaho sites.

The art of making painted pottery has continued in Canyon de Chelly from the time of the Spider Rock hogans until the present. Furthermore, the modern Navaho painted pottery is similar in many details to that in the ancient sites of the area. Although the de Chelly painted pottery is different in many respects from that of the Ramah area, its many similarities suggest a common point of origin.

The presence of glass beads at the Spider Rock hogans indicates trade relations with the Spanish. With the exception of the beads, and the tip of a rusted scythe (found on the surface), objects of European manufacture were absent.

Both horse and mule deer bones were found, while sheep and goat bones were noticeably absent.

The occupation of the Spider Rock hogans coincides with the occupation of the Big Bead sites and the abandonment of the *dinêtah* area. Judging from archaeological evidence, the culture represented at the

[37] Page mentions, however: "In a personal interview, Mr. Haske Naswood, of the Soil Conservation Service, says the hogans in use in Canyon de Chelly prior to the exile of the Navajos to Fort Sumner in 1863, were semi-pit structures. A pit one or two feet deep was excavated; then low walls of undressed stone were built around the edges, on the top, and the whole was capped with roof beams laid in parallel formation, or was cribbed" (1937*b*, p. 47).

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Spider Rock sites was intimately related to the broad pattern of Navaho culture in the *dinêtah* and Big Bead Mesa areas, although it differed in several details.

University of New Mexico
Albuquerque, New Mexico
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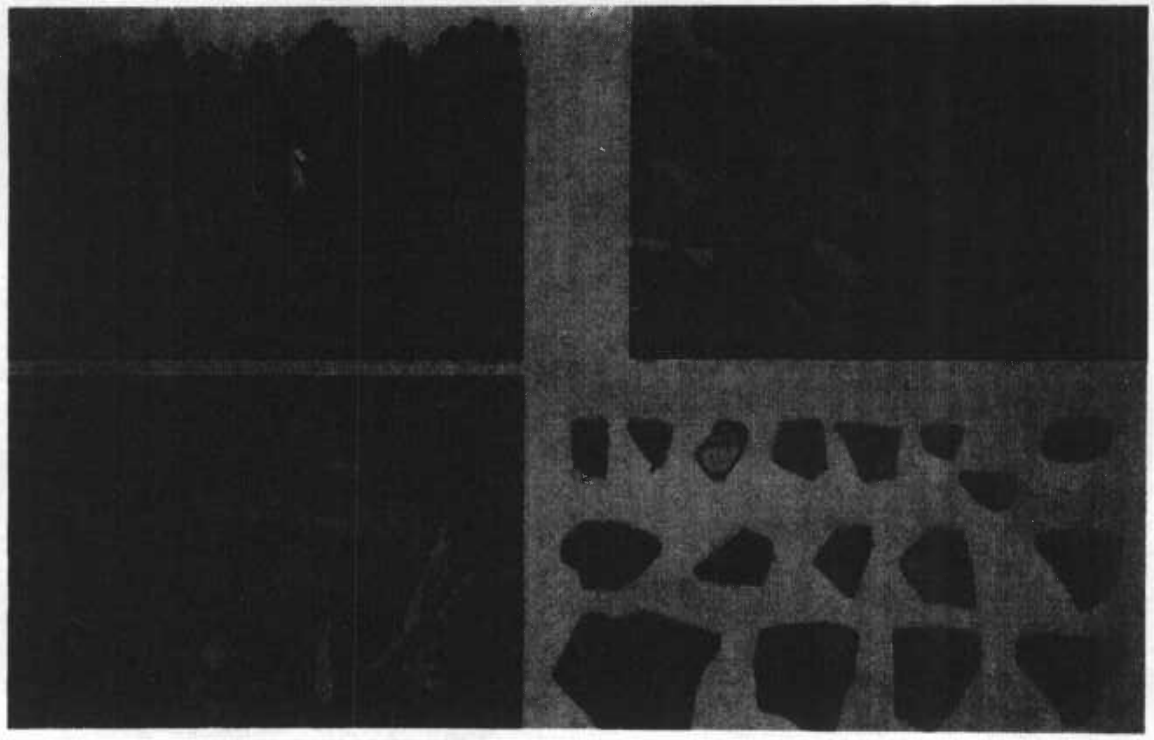

Top left: Spider Rock Hogan No. 1 (1758). *Top right:* Interior, Spider Rock Hogan No. 1, showing method of interlocking timbers. *Lower left:* Six-sided Hogan at Spider Rock (1770). *Lower right:* Sherds of Navaho polychrome pottery from Spider Rock Hogan Group 1.

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