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DEPARTMENT OF INDIAN ART

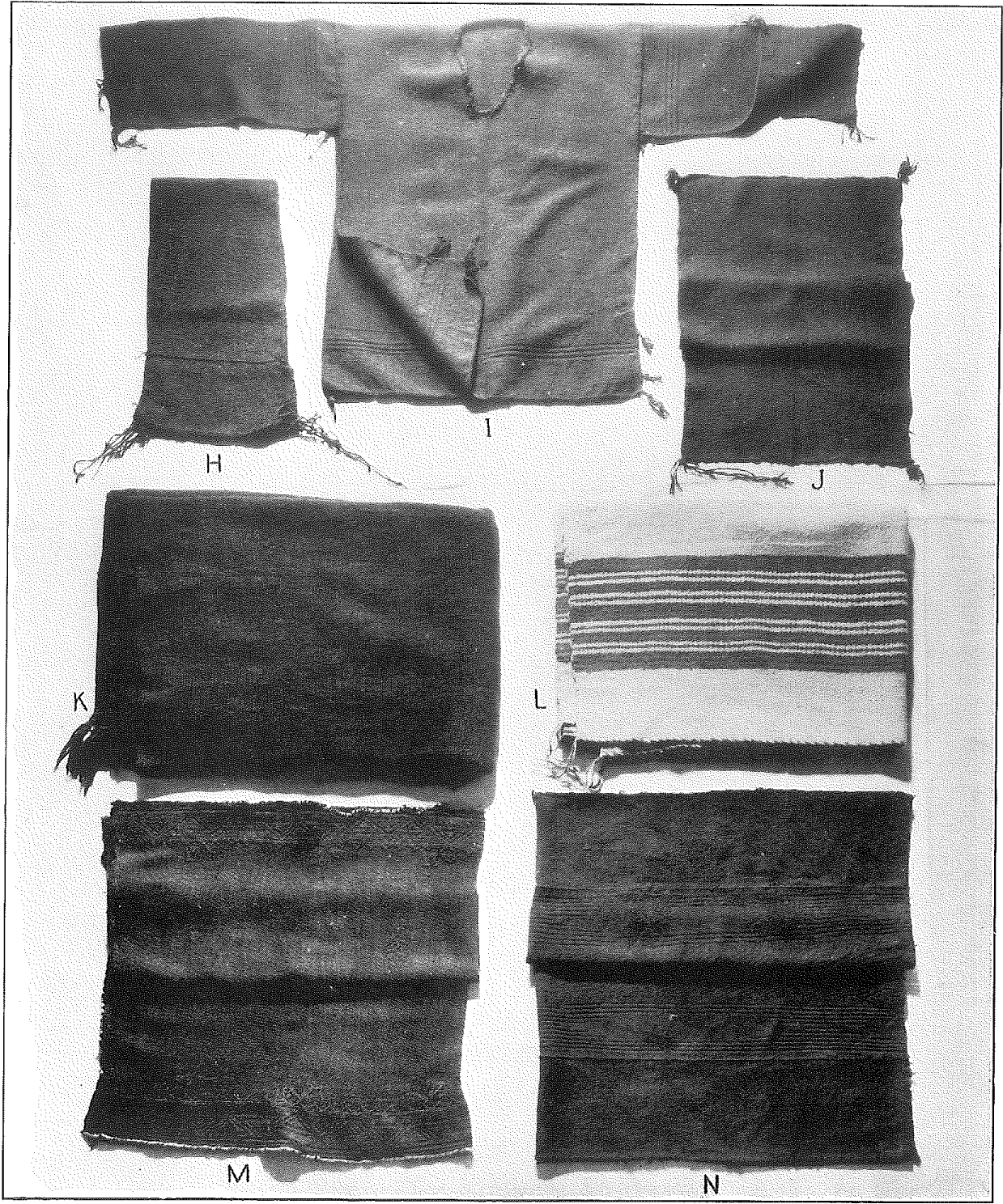
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Weaving at Zuni Pueblo

LEAFLETS 96-97

FEBRUARY, 1940



1. **ZUNI** (Zoo-nee) is the main pueblo or village of the tribe of the same name. It is located 42 miles south of Gallup, New Mexico, very near the Arizona-New Mexico border slightly north of its center. There are four smaller villages, Ojo Caliente, Tekapo, Nutria and Pescado, located within a 20 mile range of the main town. The total population of the tribe is 2180. The present town of Zuni was established in 1695 on the site of Halona, one of the Seven Cities of Cibola discovered by the Spanish in 1540. The language spoken is the only member of the Zunian linguistic family, though there are indications that it may ultimately be found to be related to the other Pueblo languages.

2. **PUEBLO WEAVING** began in the 8th century, A. D. The oldest piece dated by the tree ring calendar bears the date 758, A. D. Weaving on the true loom appears somewhat suddenly among the Pueblos. It has not yet been determined whether it was invented by them or introduced from Mexico. Since this beginning weaving has been carried on continuously in cotton; and in wool since the introduction of sheep by the Spanish in the 17th century. For several generations it has been dying out, now surviving as a major craft only among the Hopi and Zuni, with occasional occurrences elsewhere. See Leaflets 18, 89-95.

3. **ZUNI WEAVING HISTORY** is largely unknown. As to its beginnings and prehistoric course we have no knowledge because of the lack of archeological investigations. One of the early Zuni villages, Hawikuh, lasted till near the end of the 17th century; and from its ruins have been taken pieces of plain cotton cloth. This find supports Spanish statements that weaving was done in the Zuni towns. But for the following 200 years we have no information beyond occasional references in old chronicles. In 1879 James Stevenson came to Zuni to collect for the Smithsonian Institution. Since then various anthropologists and others have studied the subject and accumulated considerable information. Much of the information to follow was obtained in 1935 and 1936 from a number of weavers at Zuni.

4. **SEX OF WEAVERS.** Contrary to the common Pueblo practice most Zuni weaving has been done by women, at least during the period of modern study. Some men weave and many seem to be perfectly familiar with the process. The same general situation is found in regard to embroidery.

5. **LOOM AND EQUIPMENT.** The loom is the same simple vertical device as is used by the Navaho and Hopi and other Pueblos who formerly wove. Two details set it slightly apart from the loom of the Navaho. The Zuni loom is set up indoors; and the Zuni keep the edges of the cloth straight while being woven by fastening a measuring rod across the warp and moving it upward as weaving progresses. All types of Zuni looms are fully described in reference 3.

6. **WEAVING TECHNICS** are the same as at other Pueblos. Plain, diagonal and diamond weaves are made. All are described in reference 3. Leaflet 3 describes the general process of plain weaving.

7. **BELT WEAVING.** Women's very long and rather narrow belts (E) are woven on two types of loom. In one the warp is wrapped around two poles to form a continuous band. As the weft is inserted this band is slipped on the poles to keep the working edge within convenient reach of the worker. The weft is inserted in all but about a foot of the warp. This section is cut in the middle, each half forming the fringe at one end of the belt. The weft is in-

served with the aid of stick heddles. The other loom has the warps stretched between some fixed point and the waist of the weaver; and has a reed heddle for manipulating the warps. The reed heddle was in use as late as 1916. I have no later data.

These belts differ from blankets and other textiles in that in them the warp alone is visible; while in blankets it is the weft which makes the surface; and in dresses and other wool or cotton articles both warp and weft are seen. What is said here about Zuni textiles applies equally well to the work of other Pueblos.

8. KNITTING. Two types of woolen articles are produced by this technic; tight black or blue leggings covering the calf (C); and ankle height socks (F). The leggings were made unusually tight so as to restrain the growth of the calf. The socks seem to have been restricted to Zuni. They showed a many-colored design of small blocks. They are no longer made as a regular practice. The pair on the cover (F) was made recently by a man who once had specialized in their manufacture. In knitting, 4 needles are used to produce a considerable variety of complex stitches. Knitting was done by men only.

COTTON

9. CULTIVATION. Cotton was grown in chile pepper fields and anywhere where irrigation was possible up till somewhere near the end of the 19th century. The seed was planted in July and the crop was gathered in September.

10. PREPARATION. Seeds and dirt were removed from the bolls with the fingers which were also used to roughly straighten the fibres. Commercial carding combs were used to complete the untangling process. What was used before cards set with steel wire became available is not known. Cockle burrs mounted in a frame offer a possible answer.

The carded rolls of cotton are spun on a simple spindle, a slender rod 16 to 18 inches long and slightly tapering from a bluntly rounded butt to a fairly sharp point. A wooden disk 3 or 4 inches across is slipped on the shaft to a position near the base. The point of the shaft is stuck into a roll of carded cotton. The shaft is rotated on the thigh or with the fingers of the right hand while the left draws the roll away from the point. Reference 3 discusses these details at some length.

11. ARTICLES MADE. The largest product of the cotton weaver is the woman's white shawl with colored wool embroidery on the top and bottom edges (A). It averages about 3 x 4 feet in size but may be larger. The location of the embroidery bands and the general character of the designs may be seen from the photo. The use of colored medallions on the lower bands is said by old embroiderers to be rather recent, plain black having been the rule formerly. Zuni shawls generally have the triangles atop the lower band in groups of two instead of the threes made elsewhere. Besides the embroidered shawls there are those with bands of color woven on the long sides. One type, apparently the older, has wide blue edges only, the blue being woven in a diamond weave in wool (92-93; F). The more common type has broad red and blue edges (90; F 92-93; E), the blue being diamond weave and the red diagonal. The center is white in a diagonal weave, though some seem to have been made in plain weave.

Kilts (D) worn by men dancers were and are made. They are about 36 to 40 x 16 to 18 inches in size and have bands of wool embroidery on the short sides. The photo shows the usual standardized design. These are just like

the kilts made elsewhere among the Pueblos. The Zuni claim that theirs have a black knitted band along the bottom, trimmed with widely spaced black squares. The Hopi deny this, making further investigation necessary.

The wide white braided ceremonial sash (B), is still made at Zuni.

In addition to the articles described above, the Zuni of 1879 and thereabouts said that formerly they had made men's shirts and breech clouts; and dresses, belts and hair ties for women. None of these old pieces is known today.

WOOL

12. PREPARATION. The wool is clipped with commercial shears by men. The women wash it with yucca root in cold water. Carding and spinning are done as with cotton. Grey wool is made by carding white and black wool together. As the yarn is spun it may be scraped with a corn cob.

13. DYES. By 1904, when native dye methods were first carefully studied, knowledge of them had largely gone, only a few formulas being remembered. Flowers of the thistle, *Psilostrophe tagetina*, or rabbit-weed, *Bigelovia*, were used for yellow. Blue came from imported indigo. Green was made by dyeing the wool yellow first with native dye and then dipping it in indigo. A red-brown was produced with coreopsis flowers. The black dye is still used. It is made with the bark of sumac, *Rhus*, combined with ground-up rock containing sulphates of iron, aluminum and magnesium. Native alum was the common mordant. All dyeing was done by boiling except in the case of indigo.

WOOL ARTICLES MADE

14. BLANKETS. (K, L) There were two types of blankets. One was solid black and was worn by men spectators and participants in ceremonials. The making of black blankets ceased about 1885-90 with the wholesale introduction of commercial products. Old people were buried in black blankets and as no new ones have been made they have become excessively rare. These black blankets were made only at Zuni. They are not to be confused with the smaller and thinner black shawls and dresses used generally by Pueblo women. The few black blankets known are very coarse in texture and are large enough to enwrap a standing man completely. The other type of blanket is usually white with various combinations of narrow stripes in brown, black or blue (L). Some had a blue and black striped background with a few white stripes. In general these striped blankets resemble those made in many Pueblos. There are two features which apparently are distinctive for Zuni blankets. They are said by old weavers to be more nearly square than those from other towns; and they appear to be consistently coarser, thicker and fuzzier than those made elsewhere. The few blankets which are certainly Zuni back up the assertion about squareness. But the old weavers said that a tendency to squareness was not consistently followed. So all that can be said is that any coarse, thick white blanket with stripes and a rather square shape is probably Zuni. As far as could be discovered neither type of blanket is being made today, though there are plenty of weavers who could make them.

15. WOMEN'S DRESSES AND SHAWLS. (M, N) Here again there are two types. Both are black or very dark brown and are made in a diagonal weave except for the long sides. The difference comes in the treatment of the long sides. The older and more characteristically Zunian type has these sides embroidered in dark blue (M). The more recent type has sides in a diamond weave (N). The latter type is that found commonly throughout the Pueblo region. Both are rectangles with an average size for adults' dresses of 40 x 50

inches. But they are made to fit women and children of every shape and size. Both types were worn around the body as dresses; and over the head and shoulders, or shoulders alone, as shawls.

The embroidered type has about 3 inches of plain weave along each long side over which the embroidery is placed (M). The designs are very standardized, there only being 3 or 4 patterns. They are simple geometric figures, or highly conventionalized butterflies. Along the top, or inner edge, of both bands are set, at 6 or 8 inch intervals, little conventionalized flowers which show Spanish influence. There is usually a very narrow band of embroidery along the short sides also. A very few Zuni dresses show red embroidery. Embroidered dresses are no longer made at Zuni though there are people who can make them. They are now worn only on ceremonial occasions, having been replaced for everyday use 40-50 years ago by the diamond edge type.

The diamond edge type (N) is just like that found elsewhere in the Pueblo area except that there is a strong tendency at Zuni for the diamond section to be black instead of blue, as among the Hopi. Blue was sometimes used but black has been increasingly common. All examined on Zuni women were black. The diamond edges are about 6 inches wide. As a supplementary decoration there may be a band just above the diamonds which shows a few rows of deep corrugations woven in the fabric. This technic is not restricted to Zuni, but is common there.

A weaver observed at work stated that she used 4 balls of black wool, each 6 to 7 inches in diameter, for the body of the dress; and 2 balls for the diamond edges. She took about 4 months to weave a dress, working in her spare time.

16. MEN'S SHIRTS (I) were made in three pieces; a long rectangle to cover the back and chest, with a hole cut for the neck; and two sleeves, truncated pyramids with the base of each sewn to the shoulder. The edges were not sewn up, but fastened with ties. All were in a diagonal weave, with black or dark blue as the colors. From the evidence of old photos—no actual shirts were seen—it would appear that Zuni shirts were just like those made by the Hopi.

17. KILTS were of two types, one with blue embroidered ends and the other without decoration (J). Diagonally woven blue or black cloth was used. The kilts were about 16 to 18 inches wide and of varying lengths to fit different waist sizes.

18. BREECH CLOTHS were also made in two ways, some with blue embroidered ends and others with diamond weave ends (H). They were about 40 x 16 inches, with smaller sizes for boys. Information is lacking as to whether they ever had the colored striping seen on Hopi examples.

19. BROCADED SASHES (G) are 5½ to 6 feet long—made in two pieces—and 7 to 10 inches wide with fringes on the short ends. They are white or cream with a section of colored brocade at each end. They are usually made of wool, though sometimes of cotton. The design found everywhere among the Pueblos is shown in the photo. It represents the mask of the Broad-face kachina as far as the Hopi are concerned. No information is available as to any explanation of the design at Zuni.

Brocading and embroidery are often confused. The former is done on the loom and produces narrow parallel bands on the back (left side of G). Embroidery is done with a needle after weaving is finished and shows small irregular spots of color on the back.

There is at least one living weaver at Zuni who has made brocaded sashes. They are worn by men dancers at many Pueblos to hold up the embroidered cotton kilts described in section 11.

MILKWEED COTTON AND YUCCA TEXTILES

20. MILKWEED. Reference 1 discusses at some length the making of thread from the cotton of this plant, *Acerates angustifolia*. The cotton was picked from the pods, worked into fluffy masses with the fingers and deposited on a blanket. There it was whipped to separate the seeds. It was spun like cotton. It was then woven into; "a good substantial cloth closely resembling if not identical in appearance to the genuine cotton." In 1910 milkweed cotton was being made into cord for ceremonial use. Reference 1 supplies this information.

I have never seen cloth made with this material and can add nothing to the above.

21. YUCCA. The new leaves of *Yucca baccata* were boiled with wood ashes, and chewed to remove the pulp so that the fibres could be separated. They were then dried and tied in bundles till needed. Before spinning they were soaked in water and rubbed and pulled until fluffy. This fluff was spun and woven like cotton or twisted into cord. I know of no examples in existence today and have no information later than 1910. Spun yucca fibre was formerly used by the Hopi to make rabbit snares.

23. CEDAR BARK AND BUFFALO WOOL are mentioned in reference 1 as having been used in textile work. The wool was woven and the bark used "for decorating the fabrics," apparently by weaving it into cotton so as to produce a design. The inner bark of the red cedar was used. No information other than the above is available.

24. EMBROIDERY MATERIALS. Bayeta, the Spanish word for the wool cloth we call baize, was raveled by the Navaho and Pueblos for use in weaving and embroidery. It was usually red, a color not obtainable with native dyes. Bayeta from England was being used at Zuni as late as 1881.

Machine-made wool yarn, usually called Germantown, first reached Zuni in or about 1879. At first it was used only for weaving belts and other narrow bands. But eventually it came to be used for embroidery. It is the only material so used today.

Compiled by F. H. Douglas from his field notes, studies of the great collections, and from the following sources:

BUREAU OF AMERICAN ETHNOLOGY

1. Pueblo Indian Clothing—Matilda E. Stevenson. A manuscript written in 1910. A mine of information about all sorts of weaving processes, types of clothing, the manufacture of shell and silver jewelry and the like. There are copies at the Denver Art Museum, the Laboratory of Anthropology in Santa Fe, the Museum of Northern Arizona in Flagstaff, and the Universities of New Mexico and Arizona.
2. The Zuni Indians—Matilda E. Stevenson. 23rd Annual Report for 1901-02. 1904

AMERICAN ANTHROPOLOGIST

3. Zuni weaving technique—Leslie Spier. Vol. 26, no. 1. 1924. Drawings of the Zuni loom and weaving processes; and descriptions of the preparation of wool and cotton.

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