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HOPI INDIAN POTTERY

THE HOPI INDIANS are a sedentary, agricultural people of Shoshonean stock living in eleven villages in north central Arizona. Eleven villages or pueblos are on or at the foot of three mesas or tablelands, while the remaining one, Moenkopi, is located about fifty miles west of the mesas, near Tuba City. There is also one Tewa village, Hano, on the first mesa. A 1930 count of the Hopi, including all those at the villages; those at school and those living elsewhere, showed 3,647 persons. For further information about the Hopi see leaflets 4, 8, 9, 13, 17, 18, 43-44 and 45-46.

POTTERY HISTORY. While pottery sherds from a much earlier date have been found in the Hopi country, pottery which was made by people who can be called Hopi dates from the end of the 13th century. This ware was a decadent black on white or black on orange. About 1300 a new variety appeared, called Jeddito yellow, showing black designs on a clear yellow ground. The first designs were geometric and later developed into more realistic forms. About 1425 this ware reached a high degree of perfection, with black and red, later with white added, on a yellow ground. The best of this ware is called Sikyatki, after a pueblo probably founded by Keresan people from the east. This kind of pottery (A) with its highly conventionalized life forms, is considered to be the high points of Indian ceramics. During the 16th century the ware became decadent, with poor heavy work and over elaborate design. The establishment of the Spanish missions in the early 17th century influenced the shape of the pottery and further increased the decadence. From 1700 to 1800 a poor ware with dull colors, rough finish and geometric designs was made. The colors were black and red on yellow. About 1800 the designs begin to show a strong Zuni influence (B). Even the colors were like those of Zuni. The ware showed a crackled surface (C). In 1895 the late Dr. Walter Fewkes excavated the ruin of Sikyatki and discovered the beautiful old pottery which had been made there. This discovery resulted in the revival of the Sikyatki style by the Tewa woman, Nampeyo—see last heading of this leaflet—and the beginning of the present style of Hopi pottery described in this leaflet.

LOCATIONS. Decorated pottery was formerly made at all the Hopi towns, but the art has gradually declined until it is now only made in quantity at Sichomovi, Hano and Polacca, the modern village on the plain below. A little is made at Walpi. Cooking and storage ware is made to some extent in most of the towns.

CLAY PREPARATION. About a dozen kinds of clays are found between the massive layers of sandstone which make the mesas, but only a few of these are ordinarily used. The dry, hard clay is dug out by the women and carried to their homes, where it is broken up, soaked, freed from stones and sand and thoroughly kneaded. Freedom from cracking is insured by the last process. Temper of sand is only added to clay to be used in making rough cooking ware. Enough clay for several pieces is prepared at one time and kept in damp storage. When a pot is to be made enough clay is spread on a stone slab and allowed to dry to the proper condition for working.

MOULDING. A lump of clay is flattened in the hands and pressed out into disk form upon a saucer or piece of old pottery. On this base a succession of coils is built up. The coils are pressed together with the fingers and their corrugated surface somewhat smoothed with various pieces of gourd cut in different curves. This smoothing process is not carried as far among the Hopi as in other pueblos. In making large

vessels only a few coils can be added at a time. So while each section of a large piece is drying work may be done on other pieces. The shape of the vessel is regulated by varying the diameters of the successive coils. Hands and tools are kept moist.

DRYING. When the moulding of a piece is completed it is dried by placing in the sun, under the cook stove, or in the oven of the stove. If the clay has been insufficiently kneaded the piece will crack. Small flaws can be overcome, but large ones result in the destruction of the piece.

SMOOTHING. Pieces which have successfully met the drying test are now smoothed with a piece of sandstone or bit of sharp metal. All signs of the coils are removed, small rough spots are leveled and the walls are reduced to the necessary thinness.

POLISHING. Pieces which are not to be coated with slip—see below—are polished at this point. The smoothed pot is moistened and rubbed long and thoroughly with a water-worn pebble. This process imparts a high polish to the piece. Slipped pieces are polished in the same way after the slip has been applied.

SLIPPING. The Hopi use two slips, white and red. The white is made by grinding a fine-quality local white clay in water until a creamy liquid is formed. The red slip is made from a yellow clay in the same manner. The smoothed pots are coated with the slip, which fills the pores of the clay and makes the surface perfectly smooth and even. The slip is applied with a rabbit's tail. Several coats are applied. At the conclusion the pieces are dried and polished in the manner described above.

PAINTS AND BRUSHES. Black, yellow and white are the colors used. Yellow is made from a clay containing iron oxide or ochre. The firing changes it to orange or red. White comes from a clay of that color. Black is made by boiling the plants of the Tansy Mustard. The sediment is strained off and the remaining liquid allowed to harden into a dry cake. When mixing this with water, finely ground black clay is added to give it body. In reference four the late Frank Applegate says that he made this black more permanent by mixing a little silicate of soda, or waterglass, with it. Enough water is added to the paint to bring it to the consistency of thin cream. Brushes are made from pieces of yucca stem. The pulp is removed from one end and the remaining fibres form the brush.

PAINTING. The potter, with very few exceptions always a woman, sits on the floor, her back against the wall and her legs stretched out before her. Her paint pots, brushes, etc., are placed close by. The pot is held in the left hand and is either rested against the leg or held in the air. The design is painted free hand, no guiding tools being used. The main idea of the pattern is conceived in the painter's mind, so that no sketch is necessary. The larger lines and design masses are applied first and small details follow. Solid masses are outlined and then filled in. The painting is done with unerring skill and accuracy. Customarily but one coat is applied.

FIRING. Available accounts of the Hopi firing process vary considerably in detail. One says that the pieces are not heated before firing, another that the pots are heated in the stove oven and a third that they are thoroughly heated by placing them around the fire over which the fuel oven is later built. Individual practice probably largely determines the procedure. A circle of stone is built and in it a fire of cedar chips, dried sheep manure and often native coal is made. When this has burned down to a bed of coals the pots are placed over it, either on bits of stone,

a layer of broken pottery or bits of iron rods or sheeting. The pots are piled upside down on each other. Around this pile is built an oven made of blocks of dried sheep manure, laid in courses of gradually decreasing diameter. The top of the cone is closed with one large block. Two accounts, the most recent, say that a second layer of sherds is piled over the pots, between them and the walls of the oven. The fire burns for from four to eight hours. In some cases the pottery is removed when the fire is out, while in others twenty-four hours is allowed to pass, during which the ware entirely cools.

FINISHED APPEARANCE. Well fired unslipped pottery has a mottled background, shading from light cream through yellow to orange, the depth of the color at any one point being determined by the amount of heat which reached it. That with the yellow slip burns an even, fairly dark reddish orange, and that having the white slip remains white. The decorations are in black or dark brown, dark reddish orange, and white. Occasional black smudges are due to smoke coming in too close contact with the spot. Reference four says that the ware has a much better ring when struck since the late Frank Applegate conducted extensive experiments with different clays and tempers and showed the potters the materials which would give the best results. This was in 1922. The ware is rather thick.

SHAPES AND USES. The most characteristic Hopi shapes are the shallow bowl with incurving rim from 6 to 15 inches across and from 1 to 4 inches deep (D), and the jar, with a flattened shoulder and small mouth, ranging from 4 to 20 inches across and from 3 to 10 inches deep (E). Bowls with outcurving rims (F) and spherical jars are also made (G). Canteens with one flat side (H), dippers with long tubular or short loop handles (J), ceremonial bowls and dippers with terraced cloud pattern rims (K), small flat tile (L), tiny paint pots (M), rattles (O), and various eccentric forms are also made. Candlesticks, tall slender vases (N), ash trays and other articles inspired by the whites are made today. In the rough undecorated ware there are large storage jars and cook pots of varying size.

DESIGNS. The vast majority of modern designs are extreme conventionalizations of bird forms or parts of them. The use of these designs is directly due to the revival of the art in the period following the Sikyatki excavations in 1895. By the end of the 17th century the old Hopi designs had largely disappeared. The coming of the Tewa to Hano about 1700 introduced a new style which was largely influenced by Zuni designs. This in turn gave way under the leadership of Nampeyo to the more or less exact copying of the wonderful designs of the Sikyatki school. So today the Hopi ceramic art largely consists of modern reproductions of 15th century designs executed by potters of another tribe, though long resident among the Hopi. For a lengthy discussion of Hopi design see reference two. Geometric designs and human and animal figures sometimes occur.

NAMPEYO. When Fewkes excavated Sikyatki in 1895 one of his workmen was a Tewa from Hano. This man's wife, Nampeyo (Nahm-pá-yo) became deeply interested in the old designs, shapes, and clays. With great persistence she set herself at the task of reviving the Sikyatki ceramic school. Coupled with her determined spirit was an extraordinary artistic ability and sensitivity. In the thirty odd years since she began her work she has executed hundreds of pieces which are masterpieces of pottery shape and design. Artists and experts of every school of thought have united in calling this woman one of the greatest of American artists. She is now old and almost completely blind, but her work is being carried on by her daughters.

Compiled from the following sources by Jean Allard Jeançon and F. H. Douglas:

MUSEUM OF NORTHERN ARIZONA, FLAGSTAFF, ARIZONA

1. Technique of the Major Hopi Crafts—Colton. Museum Notes, Vol. 3, No. 12. June, 1921.
2. Conversations with Lyndon Hargrave. April, 1932.

COLUMBIA UNIVERSITY PRESS, NEW YORK

3. The Pueblo Potter—Bunzel, 1921.

UNITED STATES NATIONAL MUSEUM, WASHINGTON

4. The Hopi Indian Collection in the U. S. National Museum—Hugh. Proceedings, Vol. 54, pages 272-275.
5. Personal communication from the late Frank Applegate. Santa Fe, 1930. (Very recent information says that Mr. Applegate's reforms have been abandoned.)

THE TORCH PRESS, CEDAR RAPIDS, IOWA

6. The Hopi Indians—Hough. 1915, pages 75-82.

Technic, 1, 2, 3, 4, 5; Nampeyo's technic, 5; design principles, arrangements, diagrams and color plates, 2; history, 2.