

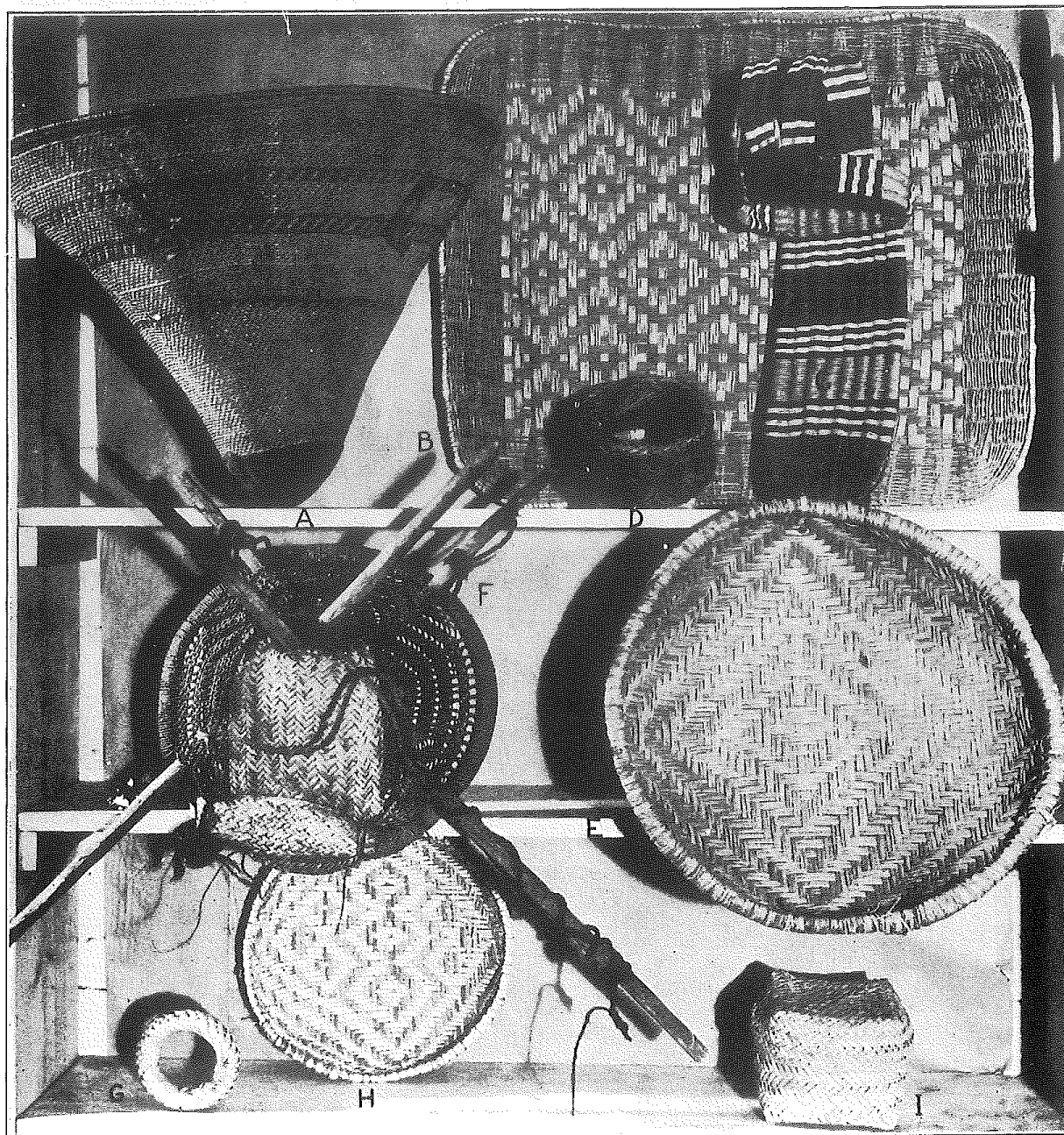
DENVER ART MUSEUM

1300 LOGAN STREET, DENVER, COLORADO

DEPARTMENT OF INDIAN ART

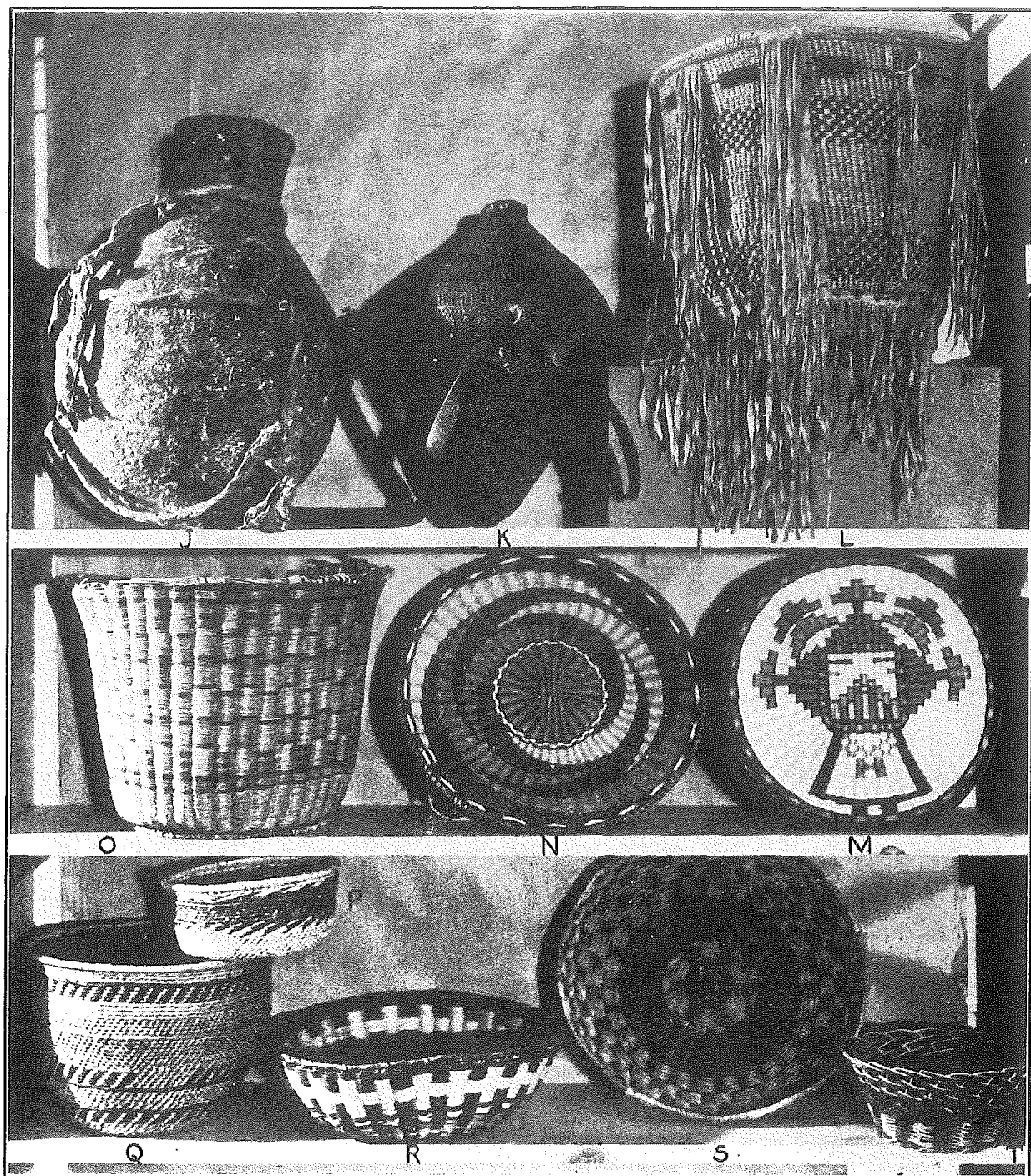
WILLENA D. CARTWRIGHT, CURATOR

FREDERIC H. DOUGLAS, EDITOR



Southwestern Twined, Wicker and Plaited Basketry

LEAFLETS 99-100
2nd Printing, February, 1955



1. **INTRODUCTORY.** That part of the United States commonly called the Southwest consists of Arizona and New Mexico with adjoining portions of bordering states. This area is one of the great centers of Indian basket-making and has so been for a very long period. This leaflet and number 88, which deals with coiled basketry, are attempts to indicate the main characteristics of the principal types for the benefit of collectors and students who find the multiplicity of varieties hard to distinguish.

2. **TWINED BASKETRY** has vertical warps or foundation elements bound together with horizontal wefts or binding elements. It can be most easily distinguished by the presence of vertical or diagonal corrugations on the fabric. There are a number of variations which are described in Leaflet 67, sections 11-17.

3. **WICKER BASKETRY** is like twined work in having vertical warps and horizontal wefts. But there is the difference that twining uses two or more wefts simultaneously; while wicker uses but one at a time. There may be several units in each single weft in wicker but they are used together as a unit and do not move independently. Section 18 of Leaflet 67 gives further details.

4. **PLAITED BASKETRY** has two sets of elements which are both active. That is, neither element is definitely warp or weft. Plaiting is done by interlacing these two sets of elements at right angles in a good many combinations. Section 19 of Leaflet 67 gives additional details.

5. **TWILL OR TWILLING.** These words mean the same thing as diagonal. Both twining and plaiting may be twilled; or plain, that is, moving in verticals or horizontals.

TWINING

6. **APACHE** (Ah-pah-tchee). Two kinds of twined baskets are made by the Apache; the pail-shaped carrying basket (L) and the pitch covered water jar or bottle (J).

The Arizona Apache make both carrying baskets and water bottles. The Mescalero of southern New Mexico make only the carrying baskets. The Jicarilla of northern New Mexico do no twining at all. Jicarilla and Mescalero water bottles are coiled.

Most burden baskets are in either plain or twill twining, or both may appear in one basket. The texture of the weaving is coarse. Some very fine examples are made in 3-strand twining. This looks just like the other varieties with 2 wefts and can only be identified by tearing down the work. But it tends to produce a smoother surface. All but some of the very finely woven examples have 4 clearly visible thick U-shaped ribs set at right angles. Some burden baskets have double rims and 2 wooden pins worked into the fabric to withstand the pull of the carrying strap. The bottoms may be either concave or convex, and in many cases are covered on the outside with leather or cloth patches. There are frequently leather fringes or broad decorative bands on the outside. There may be beads on the fringes.

The warps are usually made of the whole twigs of willow, *Salix*, or cottonwood, *Populus Fremontii*; and the wefts of split twigs from the same plants. Formerly mulberry twigs, *Morus*, were used, and very finely woven examples are likely to be of this material. Sumac, *Rhus trilobata*, is less common. It may be recognized by its red bark.

Burden baskets are commonly decorated with bands of simple geometric figures made by dyeing some wefts or by painting the designs after the basket is made. Painted designs show on the outside only. The native colors are red and black. Commercial reds, greens and blues are also used, the first being the most common.

Burden baskets of the type described above and clearly illustrated by L are made only by the Apache—except the Jicarilla—and can therefore always be assigned to that tribe. Data are lacking as to variations of the type among the different Apache divisions, except that the splints used by the San Carlos division in Arizona are broader and coarser than those made elsewhere.

Water bottles are all made in diagonal twining. Twigs of the squaw berry, *Vaccinium stamineum*, and of the sumac, *Rhus trilobata*, are the common materials, whole twigs being used in the warp and split ones for the wefts. Since these containers are covered with pitch, strength is the quality sought, not fineness of weaving. Hence the workmanship is very coarse. Waterproofing is done by melting pitch from the pinyon, *Pinus edulis*, and smearing it thickly over the surface. Some bottles have a reddish cast caused by a coating of juniper leaves pounded with red ochre which is put on before the pitch is applied. Though all shapes have fairly large mouths with tall slightly flaring necks, the body shapes fall in three groups: tall forms with slightly rounded sides and pronounced shoulders; more globular shapes with no shoulders (J); and tall hour glass forms with a constricted waist forming two rather globular sections.

Both burden baskets and water bottles have lugs to which the carrying strap is attached. On burden baskets there are two leather loops on one side about 8 inches apart and 2 inches below the rim. Water bottles have two loops of leather or horsehair near each other on the shoulder. The carrying strap rests on the upper chest and shoulders, not on the forehead.

7. HAVASUPAI (Hah-vah-soo-pie). This tribe makes three types of twined baskets, the conical burden basket (A), the shallow tray, and the water bottle (K); and formerly made a deep bowl for cooking with hot stones. The common source of the twigs used is acacia, *Acacia Gregii*, but willow and cottonwood may be used. The black designs are made with the outer covering of the hook part of the seed pods of devil's claw, *Martynia*.

The burden baskets are of the shape shown (A). Their height ranges from 14 to 24 inches and their mouth diameter from 18 to 12 inches. The nipple-like bottoms are very frequently covered on the outside with leather. Both plain and diagonal twining are used. The former seems to be more common. Both technics may appear in one basket. Lines or bands of twining done with three instead of two wefts may be used for decorative effect. After completion the side which is to rest on the back is flattened by pressure so that it will not roll. The weaving is coarse and uneven. The color is a light greyish-yellow. There are usually designs in black. These are narrow bands, a few at most, made up of extremely simple geometric figures such as triangles, zigzags, cogged lines or undecorated stripes. These decorative bands may be left out of the section which rests on the back of the bearer. There are two leather loops near each other on the flattened side 6 or 8 inches below the rim. Each loop is attached to a short stick fastened to the wall on the inside.

The trays range from 16 to 12 inches in diameter and 4 to 2 inches in depth. In construction, color and design they are like the burden baskets.

There are three shapes in the water bottle group: those with globular bodies, long pointed bottoms and very small necks (K); those with the upper half shaped like the first but with broad flat bottoms; and flat bottomed hour glass shapes. All have two lugs near each other on the shoulder. The bottles are rather finely woven with bands of both plain and diagonal twining. Curiously enough all this fine work is invisible, being covered with two coatings. The under coat is made of a yucca or soapweed paste. The outer layer is the melted pitch of the pinyon, *Pinus edulis*. The specimen shown has lost most of its pitch so that the weave shows.

8. **WALAPAI** (Wah-lah-pie) (P, Q). The older basket types of this tribe resemble very closely the work of the closely related neighbors the Havasupai. But there are a few points of difference. All Walapai basketry is in diagonal twining; the squaw berry, *Vaccinium stamineum*, is used instead of the acacia; and, on the basis of the few specimens available, the conical burden basket appears to be proportionately broader among the Walapai and the conical water bottle less sharply pointed. The starting knot has 6 warps instead of 4 as among the Havasupai.

In the older work there are 4 main shapes still in use and 1 which has become obsolete. The latter is the large, openwork firewood basket.

The burden baskets range from 12 to 20 inches in diameter and from 13 to 16 inches deep. A few simple bands of brown or black form the decoration. The black is from the seed pods of the devil's claw, *Martynia*. The source of the brown is not given in the references. There may be a few decorative rows of 3-ply twine or braid. The lugs for the carrying strap are like those of the Havasupai.

The trays differ from Havasupai ones in that they show no patterns, the only decoration, if any, being produced by some rows of 3-strand braiding, a technic which creates a slightly raised surface. A description of the older bowl is lacking; but it possibly resembled the modern types to be mentioned later.

The two kinds of water bottles are all in diagonal twining, lacking the variation of the Havasupai type. One form has a conical bottom and shoulders rounding up to a small neck. The other has a flat bottom instead of a conical one. Both are coated first with red-brown paint and then covered inside and outside with pitch from the pinyon, *Pinus edulis*. The carrying strap loops are of braided horsehair or yucca fibre and are placed near each other on the shoulder.

Modern Walapai basketry, made mostly for the tourist trade, is like that described above in technic and material. But it is largely made in straight sided shapes and shows decorative red and green bands made with commercial dyes. Bands of vertical zigzags, rows of chevrons and diagonal stripes and fringed lines are typical designs (P and Q). Though these baskets are made for the trade the type is not a new one, examples collected 55 years ago (Q) being of the same type. On these older baskets the background is yellow-brown instead of the whitish shade of the new pieces (P).

9. **CHEMEHUEVI** (Tcheh-may-hway-vee). The twined basketry of this southernmost division of the Paiute will not be considered here because, though they live in the geographical Southwest, their crafts and way of living are those of the Great Basin tribes of Utah, Nevada and neighboring states. A future leaflet will discuss the basketry of this area.

WICKERWORK

10. HOPI (Ho-pee) (C, M, N, O, R). This colorful elaborately patterned type is one of the most easily identified in America and represents the highest development of wicker basketry among Indians. This important technic is not common in America.

The warps of Hopi wickerwork are made of twigs of the sumac, *Rhus trilobata*, sometimes called wild currant; and the wefts are twigs from any one of several varieties of rabbit brush, *Bigelovia* or *Chrysothamnus*. The warps move out from a center like wheel spokes and create prominent ridges on the surface. The baskets are brilliantly colored with blues, greens, yellows, red and pink, and purple. Today these colors are obtained from native plants, though in the years around 1900 much aniline dye was used. Reference 7 lists the dye plants. Leaflet 18 gives fuller details about the technic.

The most common shape is the tray with a raised center and rim (M, N). Shallow bowls (R) are also made, as well as deep shapes for sale as waste baskets (O). The designs are as varied as the colors, showing whirling patterns (N), the figures of animals, birds and kachina dolls (M), and various geometric figures in many many combinations.

Wickerwork also appears around the edges of the plaited trays (B) to be mentioned later. Wickerwork cradles are made (C).

A coarsely made wicker burden basket is also produced by the Hopi and Zuni and possibly other Pueblo groups. They are made among the Hopi of sumac. "Peach basket" is the common name. They are narrow deep rectangles with the short ends rounded. Two heavy U-shaped rods, one near each end, are the foundations. Reference 7 illustrates one of them opposite page 13.

11. NAVAHO (Nah-vah-ho). This tribe formerly made—and still does to a slight extent—a crude wicker burden basket made of willow twigs. They are deep, four-sided affairs rising from a rather pointed bottom. Reference 5 shows a drawing of one.

12. PUEBLO (Pweb-lo) (S, T). Two varieties of wicker basketry are made in the Pueblo area. One, apparently made chiefly at Zuni, is shown by S. It is made of sumac twigs, judging by the red-brown bark. In some specimens part of the twigs are peeled thus creating simple red and white patterns. The shallow bowl is the only shape I have seen.

The other variety, illustrated by T, appears to come from the Tewa towns north of Santa Fe, San Juan especially. Many sizes are made, but there is only the shape shown. The baskets are dark reddish brown. The material is possibly sumac from the color of the bark.

The foregoing statements about these two types are not conclusive and may be wrong because there are no data available about them as far as I know. I can only say they exist and point out possibilities.

PLAITING

13. PIMA and PAPAGO (Pee-mah and Pah-pah-go). Plaiting is not widely distributed in the Southwest and is most fully developed by these two southern Arizona tribes. The work of the two is practically identical except in the matter of material. The Papago use the leaves of the sotol, *Dasyllirion Wheel-eri*, a plant much like the yucca or Spanish batonet. The Pima depend on the

stems of the cane, *Phragmites communis*. All the plaiting is diagonal, usually over-three-under-three. Other combinations may be used. Plaiting is nearly extinct among the Pima but flourishes in the Papago country.

The principal objects made are: large flat mats for household use; rings for carrying pots on the head (D); the headband and back mat for the carrying basket (center of F); more or less cylindrical baskets for personal possessions; and square baskets for ceremonial equipment (I). The baskets have lids. The baskets are a rich grey-green when new, but fade a great deal with age. There are no designs. Reference 2 gives a wealth of detail about Pima-Papago plaiting.

14. HOPI (Ho-pee). Large flat trays, (B), are made by plaiting flat groups of several twigs of the sumac, *Rhus trilobata*. The plaiting is diagonal and produces designs of the type shown. Around the edge there may be a broad band of wickerwork, of the type described in section 10. The wicker bands are plain, as shown, or have colors and designs. These trays are used for serving piki, the Hopi paper-thin colored corn bread.

15. PUEBLO (Pweb-lo). In many Pueblos there has been made for the last 1500 years the type of plaited basket shown by E and H. Today they seem to be made principally by the Hopi and at Jemez. The only shape is that shown. The basket is made by plaiting a square mat of yucca leaves and forcing in into a stout wooden ring. The protruding edges of the mat are bent over the rim and tied to themselves with yucca strips. At Jemez the only design produced shows concentric diamonds (E). But the Hopi create a number of designs (H), sometimes using two colors, the natural green of the leaf and the white of the bleached leaf. The Hopi use both plain and diagonal plaiting.

Rings (G) for carrying water jars on the head, are also made of plaited yucca in the Pueblo area.

16. LACE BURDEN BASKETS are made by the Pima and Papago. Though technically the process used is a variety of coiling, the result has so little resemblance to common coiling that it is discussed here instead of in Leaflet 88. The example shown (F) is typical, though small. The netting within the wooden ring is made of cord made by the Papago from the leaf of the aloe, *Agave americana* and by the Pima from sotol leaves, *Dasyllirion Wheeleri*. The wooden rim is made of acacia or cat's claw, *Acacia Greggii*, and the poles of the frame from the ribs of the giant cactus, *Cereus giganteus*.

The making of the lace net is too elaborate to describe here. The technic can produce a number of complex geometric designs which are made more evident by rubbing the cords with red or blue paint after the work is complete. Reference 2 gives full details.

Compiled by F. H. Douglas from the following sources and from the examination of many specimens:

AMERICAN MUSEUM OF NATURAL HISTORY

1. Basketry of the San Carlos Apache—Helen H. Roberts. Anthropological Papers, Vol. 31, pt. 2, 1929
2. Basketry of the Pima and Papago—Mary Lois Kissel. Anthropological Papers, Vol. 17, pt. 4, 1916
3. Havasupai ethnography—Leslie Spier. Anthropological Papers, Vol. 29, pt. 3, 1928

UNITED STATES NATIONAL MUSEUM

4. The Hopi Indian collection in the United States National Museum—Walter Hough. Proceedings, Vol. 54, P. 235, 1919

THE FRANCISCAN FATHERS, ST. MICHAELS, ARIZONA

5. An ethnologic dictionary of the Navaho language. 1929

AMERICAN ANTHROPOLOGICAL ASSOCIATION

6. Walapai ethnography—A. L. Kroeber, ed. Memoir 42, 1935

MUSEUM OF NORTHERN ARIZONA, FLAGSTAFF

7. The arts and crafts of the Hopi Indians—M.-R. F. Colton. Museum Notes, Vol. 11, no. 1, 1938

MUSEUM OF NEW MEXICO, SANTA FE

8. The Jemez yucca ring-basket—Ten Broeck Williamson. El Palacio, Vol. 42, nos. 7-9, 1937

BUREAU OF AMERICAN ETHNOLOGY

9. The Zuni Indians—Matilda C. Stevenson. 23rd Annual Report for 1901-02, 1904

COLUMBIA UNIVERSITY

10. Correspondence with Dr. Gene Weltfish, 1940