

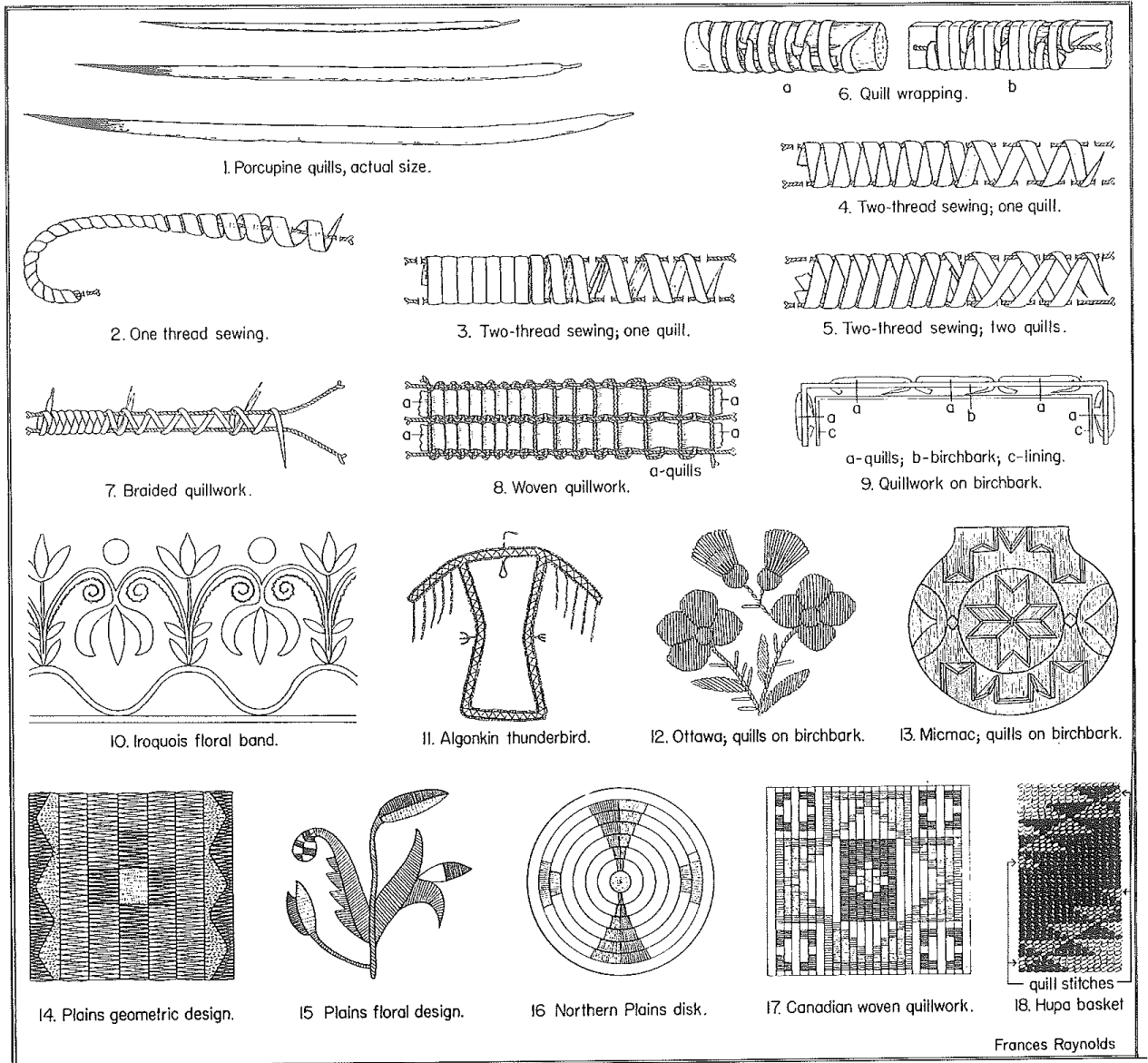
DENVER ART MUSEUM

1300 LOGAN STREET, DENVER, COLORADO

DEPARTMENT OF INDIAN ART

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PORCUPINE QUILLWORK

LEAFLET 103

2nd Printing, February, 1955

1. INTRODUCTORY. This leaflet discusses the use of porcupine quills in decorative art by the Indians north of Mexico. The custom is of particular interest because it is restricted to these Indians, with the possible exception of certain northern Siberian tribes, people closely related to our Indians in their manner of life. The leaflet describes the quills, the technics employed in creating decorations with them, and the major design styles found. Later issues will deal with these matters in more detail. Leaflets 2, 73-74, 117 and 118-119, concerned with beadwork, an art closely related to quillwork, should be read in connection with this leaflet.

2. IDENTIFICATION OF QUILLWORK. The shiny, grass- or straw-like trimming seen on many objects of Indian manufacture is made with quills of the porcupine. Quillwork may be mistaken for three other types of decoration, all rather uncommon and all quite easily identified, as follows. Bird quills—the shafts of the feathers—can be recognized by their ragged edges. They are split before using, while porcupine quills are not. Many west coast tribes use a shiny white grass, *Xerophyllum tenax*, on their baskets, and a few sometimes introduce porcupine quills into the designs. These are always dyed yellow. But since the grass may be dyed the same color the grass and quill may be mistaken for each other. The quill stitches are slightly larger and do not bend so smoothly as the grass. Some tribes use corn husk. This may be recognized by its dull surface as contrasted with the gloss of quills.

3. RANGE OF THE PORCUPINE. This animal, *Erethizon dorsatus*, is found in the northeast quarter of the United States, the western half of the country except in the extreme south, and throughout Canada and Alaska except in the northern sections.

4. QUILLS (1). Most of the upper part of the animal is covered with quills, black-tipped white cylinders $\frac{1}{16}$ to $\frac{1}{8}$ of an inch in diameter and from about 1 to 4 or 5 inches in length. The black outer tip is barbed.

5. PREPARATION FOR USE. The quills are softened by the application of moisture, either by soaking in water or by placing in the mouth. Some tribes flatten the moisture-softened quills between the teeth or finger nails. Others do not. Ordinarily the tips are not cut off, but they may be.

6. DYEING. Quills take dye very well. The color is applied by boiling the quills with the dye. Many native plant dyes were used and still survive to some extent. Leaflets 61 and 71 list a number of them. Commercial aniline dyes have been widely used since their introduction about 1885. Sometimes quills were dyed by boiling them with colored cloth of White manufacture. The color boiled out of the cloth and penetrated the quills.

MAJOR TECHNICS

7. WRAPPING (2). Objects of small diameter, such as bone whistles, rawhide strips in fringes, and small pipe stems, are trimmed by wrapping a series of quills around them so as to completely cover a section. The ends of the quills are caught in a simple knot or attached to a thread running down one side of the decorated object.

8. SEWING is the most common technic and has many variations. It is used on skin objects. There are two main types, one done with a single thread and the other with two or more. In the first type (3) a thread is caught at intervals under the surface of the skin and quills are wrapped around it, one at a time, as the stitching proceeds. This produces a fine line of quilling

which may be curved in any direction. In two-thread sewing (4, 5, 6) the threads run parallel, usually about one quarter inch apart, and are caught under the skin at intervals. One or more quills are folded around the threads, passing back and forth between them. The number of quills used and the manner of folding them produce a number of finished appearances. Examples of several are shown on the cover. The stitches may be parallel or criss-cross. Two-thread sewing produces bands of quilling, almost always straight, but not necessarily so.

9. BRAIDING is actually a variation of sewing (7). The difference is that the quills are wrapped around and between two threads stretched between two points rather than around a pair caught into a skin surface. One quill at a time is the rule, though two or even more may be used. Reference 2 gives full details. Braiding produces a narrow cord of quilling which is used to wrap around things, principally pipe stems. By introducing quills of different colors patterns can be created.

10. WEAVING (8) is the most complex of all the technics. A set of parallel threads is stretched between two points to form the warp of the fabric. Other threads, the wefts, are then woven back and forth over and under the warps. As the wefts are introduced flattened quills are worked in between and parallel to any pair of warps and over and under the successive wefts. The wefts with their quill coverings are kept pushed tightly together. Woven quillwork is done only north of the United States. It produces bands, usually one to three inches wide, which are sewn to clothing or other objects. The angular geometric designs may be very complex, with many colors.

11. QUILLING ON BIRCHBARK (9). In the birchbark area, see Leaflet 102, porcupine quills are extensively used. The ends of the quills are bent down at right angles and passed through holes in the bark. A lining of bark is used to cover these ends. Such work is produced by tribes in the Great Lakes region and in northern New England and the adjoining parts of Canada.

MAIN TYPES OF DESIGN

12. NORTHEAST. From the Ohio Valley east to the Atlantic and north of this line designs in quillwork are predominatingly curvilinear and largely based on plant forms (10). One thread stitching is the rule so that the patterns are delicate and open, not covering the entire surface decorated. But two-thread stitching and fairly large solid areas are not unknown. Other life forms may be made, notably highly simplified bird forms representing the Thunder bird (11). Geometric designs also appear to some extent. This is particularly true of the birchbark boxes from the Micmac and others to the far Northeast (12). The birchbark boxes of the Great Lakes tribes, however, frequently bear plant, bird and animal designs (13). The curving floral designs appear to be basically Indian, but to have been somewhat influenced by French colonial design.

13. PLAINS. The northern and central Plains tribes produced quantities of quillwork and still carry on the art. It is scant or absent among the southern groups. Angular designs, often in large masses, predominate, with two-thread sewn bands as the common technic. The older designs were all geometric (14). But the French influence mentioned in the preceding section eventually reached the Plains. Because of the domination of the two-thread technic, with its resulting rather stiff bands, really graceful plant forms could not be made very successfully, so the flowers, leaves and stems have a rather

clumsy, angular style (15). One-thread sewing is not unknown, but is most generally limited to the making of tight spiral rosettes. Wrapping and braiding are used extensively, the former mostly on rawhide fringes and the latter on pipe stems. In both, angular designs of a simple type are used.

In central Plains quilling the quills are completely flattened, while northern tribes, such as the Crow and Blackfoot, hardly flattened the quills at all. Hence their work is coarser than that of the tribes south of them. The use of large quilled disks to be sewn to clothing or tipi walls is very characteristic of the northern tribes (16).

14. SOUTHWEST. Though the porcupine is common in this area quillwork is very scarce. The only uses of it known to me are two. The Hopi and Zuni decorate the broad ankle flaps of some ceremonial moccasins with bands made of parallel strips of black and white quilling. At least some of the small rattles used by Navaho medicine men are wrapped with coarse, yellow braided quilling.

15. CANADA AND ALASKA. The quilling of the Canadian Plains and of the eastern wooded section is that of the United States regions south of them. In central Canada and on up into Alaska woven quillwork seems to have been the rule, though bands of sewn work and cords of braided work were also made. Generally speaking the development of the craft was small in quantity. The quality of the best far northern quilling is very high, for the woven work of the central Canadian tribes is unequalled for fineness, complexity of design and beauty of color (17).

Along the Northwest Coast a little sewn quillwork was made, apparently due to influences from the interior tribes. Simple geometric designs were used instead of the characteristic animal patterns of the region.

16. CALIFORNIA. As has been indicated in section 2 quills sometimes appear in northern California basketry of the finely twined type made by the Hupa and their neighbors (18). The Klamath of Oregon also use quills. In the coiled basketry of central California one occasionally sees a few stitches on bird quill (see section 2). The porcupine quills are dyed yellow and are used very sparingly in any given basket.

The northwestern California tribes also make some coarse, yellow braided quill cording for use on religious paraphernalia.

Compiled by F. H. Douglas from studies of collections and from the following sources:

MUSEUM OF THE AMERICAN INDIAN, HEYE FOUNDATION

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UNITED STATES OFFICE OF INDIAN AFFAIRS

2. Quill and beadwork of the western Sioux—Carrie A. Lyford. Indian Handcrafts pamphlet 1, 1940.

UNIVERSITY OF PENNSYLVANIA MUSEUM

3. The art of quillwork—B. W. Merwin. Journal, v 9, n 1, 1918.

UNIVERSITY OF ARIZONA

4. Ecology and life history of the porcupine . . . of the southwestern United States—Walter P. Taylor. Bulletin v 6, n 5, 1935.