

The neck ornaments of the women in this region are very pretty and of great variety, being wrought chiefly from nuts, shells, beads, grass, feathers, and leather. Necklaces are frequently made of the seed of the *piñon* tree by grinding off both ends, removing the fleshy portion and stringing. When the ends are ground off diagonally and the seeds strung, alternately leaning to right and left, they form a pretty zigzag effect on their strings. Smaller pine seeds are formed into necklaces variegated here and there with white beads or shells. A valuable specimen in this line is a necklace of nine hundred shells of *Olivella biplicata* strung by grinding off the apexes.

A very pretty kind of woman's necklace is made of bunches of grass cord and several cords in each bunch. Each cord consists of a bunch of grass leaves, sewed with a delicate cord of grass thread and at intervals with bands of yellow, red, and black yarn, the cord when served being less than one-eighth inch thick. Hanging on the neck, this crescent-shaped object forms a very attractive ornament. The shell necklaces are of three varieties, *dentalium* and *olivella* strung lengthwise, disks of *olivella* strung as wampum, and cylindrical necklaces of clam-shell disks.

Dance dresses of deer-skin are worn by women on occasions of ceremony. There are three of these of extraordinary elaborateness in Lieutenant Ray's collection, in general outline alike, and differing only in details. (Fig. 42.) They are made of soft deer-skin, a little over 3 feet long, 2 feet 9 inches wide at bottom, and widening upward. At the top two strips are left about a foot long, to come over the shoulders as lapels. The lower 9 inches of the bottom are slit into strings one-eighth inch wide. To increase the fringe a series of holes is made across the bottom, 2 inches above the top of the fringe, $\frac{1}{2}$ inch apart. Into the first pair of holes two long strings of buckskin are looped making four strands of fringe. The inner one of these holes and the next hole receive two more strings, and so on. Excepting the two end ones, each hole has four strands passing through it. Hereby we have a very heavy fringe of buckskin, sometimes hanging down 18 inches. The body of the cloak or cape is plain. The upper part, forming a turn-down collar and lapel, is very gracefully decorated, thus:

About 6 inches are slit into much narrower strands than those at the bottom. Each strand is wrapped with the grasses used in basketry and with maiden-hair fern to produce patterns. All of these strands are gathered at the top of these wrappings by a row of twined weaving with the cord used in making nets. Then half an inch of naked leather strings is left, succeeded by a row of twined weaving, half an inch of wrapped strands, half an inch of naked strands, 1 inch of wrapping, 2 inches of naked strands, half an inch of wrapping, a narrow strip of naked strands, 1 of wrapping, 1 of naked strands, half an inch of wrapping, and finally the ends of the strands as fringe. In one case a brass sewing thimble is attached to each strand to make a jingling

sound. The alternation of bands of straw and leather of different widths, the triangular gradines wrought by serving adjacent strands with a different number of wraps, and the graceful appearance of the fringe make of these dance cloaks very attractive objects. No two of these are alike in the sequence of colors, the width of stripe, or depth of fringe.

The cinctures worn by women, and many other specimens in the museum from this region, are constructed on the same plan, so that the description of one of the most complicated will include all the rest (Fig. 43). A whole buckskin is folded in the middle. At the creased portion about 3 inches are left whole. The tailor slits the rest of the skin into "shoe-strings." Then she folded the skin three ply, as you would a sheet of letter paper for a long envelope, and sewed the under-cut strip together so as to keep the skin from unfolding. Commencing at one side she gathered twelve strings into a cable, taking four strands from each fold of the skin, and wrapped these for about 3 inches into a cylinder with broad strips of yellow grass. Continuing all the way across she made series of these cables, inclosing in each twelve strands. With buckskin string by twined weaving she united all these cylinders together at their lower ends, wrapping each strand with yellow grass. She introduced here and there the beads and *piñon* seeds so as to form bands across the cincture. About 5 inches of the bottom of each strand were served with a kind of braiding now to be described. A very long, tough strip of straw folded by its middle around one of the buckskin strands, crossing at the opposite side, the ends are alternately turned back and tucked through the last fold, giving the appearance of a rough four-ply braid. This ingenious trick of imitating braid in the administration of one or two strands has been elsewhere noticed on the borders of basket-work bowls. (Smithsonian Report, 1884. Pt. II, pl. XXXI.)

A girdle or sash made of grass and buckskin is also worn by women. The mode of manufacture is so entirely aboriginal as to demand a minute description. (Fig. 44.) Take a strip of buckskin about 3 feet long and 3 inches wide and cut all but a short piece at one end into strings, which should be rolled. Provide a quantity of fine, shredded sinew and strands of yellow grass. Stretch the eight leather strands so as to be about one-eighth of an inch apart. Begin at the end where the strings are not cut apart, lay a thread of sinew across the leather strings at right angles and pass a strand of grass between each pair of strings, around the sinews, and back. Now bring the sinew around the outside string and across as before and double all the straws over it, and back between the strings. The straws are carried back and forward between the strings in a zig-zag manner around the sinew laid across each line. In this weaving with three elements Brussels carpet is somewhat anticipated. There is also a curious dance wand made of basket-work, which is carried in the hand during the dance. (Fig. 45.) This is a mat of twined grass cloth about 18 inches square woven in bands and