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**CRAFTS OF THE
NORTH AMERICAN
INDIANS**
A CRAFTSMAN'S MANUAL

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BEADWORK

Beadwork has become irrevocably associated with American Indian crafts to the degree that some persons harbor the erroneous opinion that, somehow, Indians always did beadwork. While it is true that pre-historical Indians used beads of bone, stone, shell, and seed, only the Hidatsa of the Plains ever learned the craft of glass bead making,¹ and then only by melting the trade beads in order to create their own. Nevertheless, it is the introduction of European glass beads which provided the medium which we recognize as authentic American craftwork today.

Historically, beadwork came into use in the mid-16th century in the south, and, in the east and north in the 18th and 19th centuries, respectively. It is said that porcupine quillwork probably antedated beadwork. Certainly designs used by Indians for quillwork were found readily adaptable to beadwork with some adjustments for technique. On many older pieces, quillwork and beadwork exist side-by-side. Beadwork still is practiced today, but quillwork has almost entirely ceased as a contemporary craft.

The work of plucking quills, dying them, and stitching a design is more difficult and time-consuming than trading or buying beads and stitching them. The glossy, bright colors of beads must have been immediately coveted over quills the first time they were made available in trade. Beads are indestructible compared to quills; even if the backing on which they are used is destroyed, the beads can be salvaged and re-used. There is one small drawback of beadwork -- its weight. On a heavily beaded item of clothing, for instance, several pounds of beads may be used, and the garments were used only on special occasions, apparently the added weight was not considered that important. Beadwork rapidly became popular as soon as it was introduced. Because it was usually associated with decorative clothing, it began and stayed a woman's work. After experiencing the effort of preparing and using quills, it is easy to imagine an Indian woman inducing her husband to acquire the White man's beads when they were offered in trade.

Beads were traded by the Spanish in the Southwest as early as 1540. In eastern North America, beads were probably not introduced by Dutch, English and French traders until sometime around 1750. Beads did not reach the Plains until about 1800. The historian uses the introduction of certain types and colors of beads to help determine the extent of White con-

¹Douglas, p. 90.

tact with Indian groups, for it is possible to trace the use of beads by tribes to the White trade of the period in question and back to Europe from whence they came.

Ceramic and metal beads were traded along with glass ones, but the latter have become more typical of Indian work than the former ones. Tiny beads, particularly with the rich color and smooth finish of glass, must have held a peculiar attraction for the aborigine who, only with diligent effort and patience, could produce a poorer quality with local materials.

It seems reasonable that the early Indian woman, aware of the comparatively drab colors she was forced to use and seeing the merits of an exciting medium and simpler techniques, would be enthusiastic about acquiring trade beads. The trader, too, would have quickly found that several pounds of easily transported beads would glean greater returns in furs than a like weight of brass kettles, flour, fabric, or firearms. Early beads normally came from the manufacturer strung on threads of a given length. These lengths or hanks soon became a medium of exchange. Some companies today still sell their beads at a price per string or hank rather than per pound.

The first beads in this country probably came from Venice which is still known today for its glass industry. Later, beads were and still are produced in Czecho-Slovakia. Besides these "Bohemian" beads, some came also from France, England, and Holland, and, more recently, Japan and Germany. The Czecho-Slovakian beads of today are still considered the best in the qualities of even sizes, color, and center holes. These sell today for about 6-7 dollars a pound. Less expensive beads are probably imported from Japan and retail for about \$2.50 a pound. A good job of beadwork of the latter variety usually requires some culling out of uneven sizes.

Bead Making

Several ways of manufacturing the glass beads are known. In Venice the technique of "drawing" beads is an extension of glass-blowing in that the worker blows a heavy, hollow, pear-shaped bubble of molten glass of the desired color. A helper pulls the lump of soft glass into a long, very fine tube, sometimes over 100 feet long, in a manner as an exaggerated taffy-pull. Glass is amazingly ductile if it is worked at the appropriate temperature.

This long tube is cut into small lengths which are cut later into the size of the beads. Each tiny bit still has a perforation left from the original bubble as it was stretched into a tube so it is not necessary to perforate for a center hole. Cylindrical beads, known today as *bugles* are completed this way.

If rounded edges are desired, as in the case of most beads, the bits of glass are put in a heated drum of iron along with a finely pulverized re-

fractory mixture of sand and ashes or clay. This drum is rotated, much the same as a cement mixer, and kept hot to soften the glass slightly. The bits roll against each other with the mixture acting as a polishing abrasive until the sharp broken edges are worn off and a spherical form is achieved. The mixture also helps to keep them from sticking together.² The mixture is washed off when the drum has cooled; some beads may have this white, dusty powder still clinging to the inside hole.

Beads can thus be made of opaque or clear glass. Iroquoian pieces show much evidence of the latter, while most Plains work was done with opaque beads. Some drawn beads were made of tinted transparent glass over a white core. These were made by drawing a white glass bubble and rolling it over a plate of molten, colored, clear glass or dipping it in a pot of this so that a surface of the colored glass is distributed all over the original bubble. When this is drawn out into a tube, it creates a bead with a core of white with a transparent colored coating which has a richness and depth which only glass can give. These are still available today and are used by some local Indians. They have never been popular, however, and, when used, they seem to have a cheap, gaudy, quality which is not as pleasant as that created by the simple use of transparent or opaque beads alone.

Wound beads require an earlier technique which will be seen to be a much more tedious process. To "wind" a bead, a single lump of molten glass is pulled out into a long, thin rod (not a tube). Then the cool rod is broken into lengths of few feet long. Individual workers now soften one end of a rod and wrap or wind it around a copper or iron wire of small diameter until a complete turn is made with the glass. This is further heated to fuse the glass together. When several more turns have been wound on and fused, the bead and wire is allowed to cool. The metal shrinks more on cooling than the glass so that the wire can be withdrawn. Wound beads are typically large and may be identified sometimes by the layers which are evident on close examination. These beads were seldom traded because factories were set up to produce the drawn beads at far less cost.

Some drawn beads were decorated with strips or contrasting colored glass. Strings of glass were fused to the surface of the bubble. When this was drawn out, these created very fine stripes parallel to the hole. These were left as bugles or rounded by tumbling in the drum.³

Bead Sizes

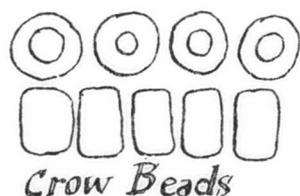
By far the most important beads used by the American Indians were the small, opaque white and colored, spherical glass beads. Larger wound beads and bugles were traded and used, but the first beads of wide dis-

²*Ibid.*, p. 96.

³Van der Sleen, pp. 22-27.

tribution and use were the so-called *pony beads*, so named because they were often carried in by the trader's ponies. These beads were about 1/8 inch in diameter with a fairly large hole which made sinew-sewing quite easy. Pony beads vary in size. If one attempts to do a large pattern with this type of bead, one needs often to make a careful selection for uniform size. Pony beads were used on the Plains from about 1800 to 1850. Today, these sell for about 50¢ an ounce or \$5.00 a pound, depending on actual size and quality.

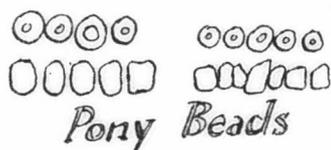
The next beads to be introduced were the so-called *seed beads* of glass which are not to be confused with beads made of real seeds. The glass seed beads are about half the size of pony beads, but these also varied in size. Today, these are classed by size numbers from 10 to 13 with the largest numbers being the smallest. Size 10 is about 3/32 inch in diameter; size 13 is almost down to 1/16 inch. Seed beads are most typical of Indian work and are universally used today for almost all work. They are available in transparent colors, white, or opaque colors. The earliest colors appear to be opaque white and medium blue. Other colors appeared later. Some tribes had favorite color combinations, often with symbolic significance. These sell today for from \$3.00-\$7.00 a pound and 15-25¢ a glass tube full, depending on color and quality again. In small lots, a 20-inch string of beads may be obtained for 10¢ from some suppliers.



Crow Beads



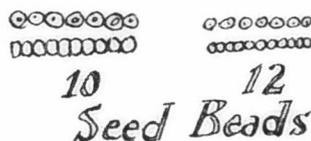
Faceted Beads



Pony Beads



Bugles



10 Seed Beads
12



16 Petite Beads



Fig. 1, Bead sizes and shapes.

Some extremely tiny beads were also used. These *petite beads* are today sold as size 16 and are less than 1/16 inch in diameter. These are customarily used only on the finest work, for they are so small as to make the job very tedious and hard on the eyes. Examples are found in some collections where they are decorative artifacts of some importance or significance. They are seldom used today. They can be obtained from a few suppliers today at a price somewhat higher than seed beads.

After 1885, some other bead forms were introduced in the Plains area. These were the metal or glass angular beads; i.e., instead of being rounded, they were cut or faceted, a quality which gives them an

unusual flash or sparkle as light reflects from the many flat, mirror-like surfaces on a beaded piece. These were known as *cut beads* or *faceted beads* in some areas and are today quite expensive.

Another type of glass bead, known commonly as *Crow beads* (although they are not unique to the Crow Indians), are quite large -- over 1/4 inch in diameter. These are sold today in fewer colors than seed or pony beads and are not much used by modern craftsmen. They are found mostly on strings for necklaces and other such items where a few beads are used for colorful accents. Crow beads were not normally used for weaving or stitching on buckskin for design motifs. Crow beads today sell for about 75¢ a hundred beads.

Early trade beads varied considerably in size. Some early work show this unevenness as it appears quite crude and irregular in pattern or texture. Finer quality work required that the worker select even sizes -- a process which resulted in a quantity of culls or left-over beads which would have to be used elsewhere. Commercial beads today generally do not have such variations in size, but beads are still sold on the basis of evenness of length and diameter.

The worker today should seek such evenness in size when purchasing beads whether by the pound or by the string. Many colors are available -- one dealer lists some thirty hues, each in several different numbered sizes. One should take care that the beads are purchased all of one size or a peculiar irregularity will result over larger surfaces. A good job of even size has a pleasant uniformly textured surface. Some dealers will furnish a sample card or chart of actual beads at a small cost so that one can actually see what is being ordered. When ordering a quantity, especially for a large area of background color (even white), one should order enough for the entire piece, for colors do vary in given lots -- much as dye lots in yarns.

Needles

Special bead needles are available today in packages of about 5 for 15¢. Needles commonly sold are size 16 which are the thinnest and are intended for use with size 16 petite beads. These are quite suitable for woven beadwork with larger bead sizes where the needle must pass through the bead hole twice. Since most "hobby" beadwork is woven on a loom, these thin needles are usually available in local hobby shops. Larger needles may be obtained from certain suppliers in smaller size numbers to size 10. The smaller the size number, the larger the needle diameter. Ordinary sewing needles are not small enough for most seed beads; for Crow beads and some pony beads, however, small common needles may be adequate.

Beading needles are typically longer than common needles because in many cases, several beads are taken up at one time and may be held on the needle shaft rather than on the thread. Also, in woven beadwork, the length of the needle is often the determining factor of the width of the weaving. This is not always true, but it is considerably easier to weave when the width of the work is less than the length of the needle.

A beading needle typically has a long eye. Even so, it is difficult to thread one. I use, in frustration, a modern needle threader, if I can