Native American Beadwork Part One: History, Materials, and Construction

By Nora Frankel Assistant Conservator of Objects and Textiles

Beadwork is iconic in Native American art, clothing, and objects. The familiar use of glass beads dates to early European contact, building on a much longer tradition of beadwork and quillwork appliqué using materials indigenous to North America. This first of two articles on Native American beadwork will focus on history, technique, and materials in order to provide a basic understanding and context to aid in proper care and conservation of beadwork objects.

Beadwork from Ancient to Modern

Different culture groups have developed a unique aesthetic of colors, motifs, and styles. A design may be significant to an individual or culture, and can be a result of dreams or deep contemplation. Some patterns resonate with cultural identity or origin stories, such as triangular representations

of Bear Butte in Tsitsistas (Cheyenne) beadwork, or the curvilinear Tree of Life of Haudenosaunee (Iroquois/ Six Nations) beadwork. Beadwork, like any art, evolved, borrowed, and innovated to create a rich visual history. There are many active beadworkers today, some working with traditional styles, while artists such as Jamie Okuma, 1,2 and Marcus Amerman³ use traditional knowledge in a contemporary context.

Many cultures have a long pre-contact tradition of beadwork using natural materials. The established use of dyed porcupine quills to decorate clothing, bags, moccasins, and other items, also paved the way for the skillful and enthusiastic use of trade beads. Quillwork techniques include sewn appliqué, wrapping, and loom work, methods later echoed in beadwork. Practices such as moose-hair wrapped weft and appliqué, were also part of this visual and technical evolution.

Quillwork was historically popular beyond the natural habitat of the porcupine, requiring trade networks for distribution, and European encroachment eventually reduced access to porcupines for many communities.



Figure 1

Preparing and working with quills is also difficult and time consuming, and curved designs are especially challenging. Beads, although necessarily traded, require no special preparation, are available in a wide array of colors, and can be worked in both curved and raised patterns.

Early beadwork is often a direct translation of quillwork styles, and sometimes used alongside it (fig. 1). The nineteenth century brought an influx of European materials and aesthetics, increasing the Native American design repertoire and materials with beads, metals, printed fabrics, shimmering silks, sturdy wools, and the metal needles and commercial thread to utilize them.4 This precipitated the explosion of new styles and techniques of beadwork. Tourist markets also influenced beadwork. An early example are the Niagara styles of the Haudenosaunee, resembling embroidered Berlin wool work in the first half of the nineteenth century (fig. 2), and becoming increasingly Victorian in the sparkling, white, highly raised Tuscarora whimsies in the latter half.5

Techniques

Beadwork is either stitched to substrate, or without a substrate, creating its own fabric. Beads can also be woven into textile structures such as finger-woven sashes or edges on burden straps.

Objects may contain several techniques:

NET BEADWORK is substrate-free, although it is often stitched to objects such as fringe (fig.3). Beads are threaded and secured in an interlocked network using a single, continuous element without a loom.6

WOVEN BEADWORK uses at least two elements, often referred to as a warp and a weft, to create an interwoven structure. It can be worked on a loom, which constrains one set of threads, the warp, while beads are secured with the weft threads. Bow looms are a common type. Finger weaving is free of a loom, and threads often intersect diagonally, approximately forty-five degrees from the selvage, while looms create threads ninety degrees from the selvage.

SEWN BEADWORK is stitched to a substrate to decorate the surface. While many types of stitches may be used, lane stitch (sometimes called lazy stitch, which is not a preferred term) and couched beadwork, also known as overlaid or spot stitch, are the most common.8 Lane stitch uses a single thread to secure beads, usually three to ten, and can fill large areas by working in parallel "lanes" (figs. 1 & 4). Couched beadwork is more typical for creating longer continuous lines (figs. 2, 3, & 4). A larger number of beads is threaded onto a surface, and additional couching stitches are placed across the thread after every few beads for security. Edges are often decorated, and one-, two-, and threebead edgings are common.9



Figure 3

Materials

INDIGENOUSLY PRODUCED BEADS

Native North Americans have a long tradition of pre-colonial beadwork, using materials such as shell, pearl, stone, bone, coral, wood, teeth, and seeds. Many beads are cut, drilled, and smoothed, although in some instances shells can be used nearly whole. Long before European contact, gold, silver, and copper alloys were being manufactured in Central America and Mexico, and cultures around the Great Lakes, Woodlands, and Southwest used copper for tools and beads.10

Shell beads never lost popularity in many regions even as European materials were available. Wampum, made from quahog and channeled whelk, is one of the most well-known among non-Natives, often woven into belts. Shells are not exclusive to the coasts; the long, spike-like dentalium shells, originating from the Pacific Ocean, are traditionally popular as far as the Great Basin, Plateau, and Plains. Beads from Pacific Olivella shells are found in Pueblo jewelry, a testament to the complex trade networks in place.11 In these interior and mountainous regions, elk teeth and bone imitation elk teeth also predate glass beads, and remain important today,

especially on traditional clothing of the Apśaalooke (Crow) and other Nations in this area.

TRADE BEADS

Glass beads were manufactured in Europe and China, and can be found in a near-infinite variety of colors and shapes. The most ubiquitous are small, nearly spherical beads cut from drawn glass tubes. 12 Small seed beads (1/16 to 3/16 inch) were introduced in the Plains in the 1840s, usurping the larger pony beads (greater than 1/8 inch) in popularity.¹³ Seed beads can have one or more facets, creating a sparkling effect. Modern beads may have special finishes such as opalescence. Beads known as "white hearts" have an opaque white interior, and colored translucent exterior, usually red. Traditional color choices as well as designs can be distinctive to cultural groups.

Metal beads and spangles are common additions to glass seed beads. Metals include steel, brass, and silver, as well as other metal alloys such as various permeations of German silver (fig. 4). Metal spangles, created from hammering a coil of wire until it creates a flattened disk with a small seam where the ends of the circular wire met, are common on mid- to late-nineteenth century Haudenosaunee (Iroquois) beadwork, especially Niagara styles. Plastic beads can also be found on beadwork from the mid-twentieth century onwards.

THREAD AND SINEW

Sinew, made from animal tendons, is a strong proteinaceous material with little to no elasticity. The traditional sewing material for quillwork, sinew is often used in beadwork, especially on hide and from Plains cultures. Artificial sinew, typically made from waxed polyester or cotton fibers, may be used in more recent beadwork.

Commercial and indigenously produced threads are also used, particularly on fabrics and substrate-free beadwork (fig. 4). Commercial threads include cotton (mercerized and unmercerized), linen, and polyester. Commercial threads are very regular and typically more than two-ply and tightly spun. Linen thread is less



Figure 4

common after the nineteenth century, and polyester was not invented until 1940.14 Indigenously produced plant fibers such as dogbane (Apocynum cannabinum), basswood (Tilia americana), slippery elm (Ulmus rubra), milkweed (Asclepias spp.) and various nettle species are also sometimes used, especially in substrate-free beadwork, edgings, and larger beads. 15,16 The fibers are typially two-ply, undyed, slightly thicker and less regular than commercial cotton thread, and generally indicate work from mid-nineteenth century or earlier.

Substrate

Surface decoration is typically worked on semi-tanned hide or fabric. Hide, often brain-tanned and either smoked or unsmoked, is dense and strong. Stitches on hide typically do not pierce the entire skin, but rather are worked partially through. Fabrics include wool trade cloth, calico and other cottons, and cotton velveteen or silk velvet. Beadwork stitches on fabric are sewn through the whole material, possibly through several layers. Silk fabric and ribbons are more common as linings and trims, the latter of which may have beaded edgings.

Paper is often used as linings and interlinings of beadwork on fabric, especially from the Woodlands. Paper is often used under raised beadwork, or between layers of fabric to give hats and bags more structure. Beads can also be wrapped around handles and other hard substrates of various materials.

Conclusion

This is a very cursory introduction to the great variety of beadwork styles and techniques of Native North Americans, a subject many entire books are devoted to. Basic technical understanding and cultural context is integral for the proper conservation and care of beaded items, which will be addressed in Part Two.

ENDNOTES

- 1. Jamie Okuma, https://www.jokuma.com/
- 2. Allaire, Christian, "Native American Artist Jamie Okuma Talks Custom Shoe Works," Footwear News, April 25, 2016. https://footwearnews.com/2016/fashion/designers/jamie-okuma-native-artist-shoes-214880/
- 3. Marcus Amerman, http://www.marcusamerman.com/
- 4. Kronthal, Lisa, "Identification and Conservation of Quillwork and Hollow Hair Embroidery," in *The treatment and handling of textiles with associated problematic materials: 2nd bi-annual symposium held at the Fashion Institute of Technology, New York, NY October 6-7, 1994.* The Textile Conservation Group, 1994, 111-134.
- 5. Biron, Gerry, A Cherished Curiosity: The Souvenir Beaded Bag in Historic Haudenosaunee (Iroquois) Art, 2012.
- Orchard, William, Beads and Beadwork of the American Indians, Museum of the American Indian Heye Foundation, 1975, 139-150 for diagrams of common structures.
- 7. Ibid., 104-139.
- 8. Ibid., 151.
- 9. Ibid., 160.
- 10. Ibid., 54-70.
- 11. Ibid., 22-24.
- 12. Ohern, Robin, and Kelly McHugh, "Red, Blue, and Wound all over: Evaluating Condition Change and Cleaning of Glass Disease on Beads." Objects Specialty Group Postprints, Volume Twenty-One, 2014, 205-228.
- 13. Ibid.
- 14. Tímár-Balázsy, Ágnes and Dinah Eastop, Chemical Principles of Textile Conservation, Amsterdam: Elsevier Ltd., 1998, 60.
- 15. Erichsen-Brown, Charlotte, Medicinal and Other Uses of North American Plants: A Historical Survey with Special Reference to the Eastern Indian Tribes, Mineola, NY: Dover Publications, 1989.
- 16. Orchard, 1975.



Nora Frankel is Assistant Conservator of Objects and Textiles at the Williamstown Art Conservation Center. Prior work includes a two-year Andrew W. Mellon Fellowship at the Smithsonian National Museum of the American Indian and a graduate placement at the Rijksmuseum in the Netherlands. She received graduate degrees in Textile Conservation from the University of Glasgow Center for Textile Conservation in 2016, and in Principles of Conservation from University College London in 2014.