Norse Glass Beads

Introduction

Both men and women valued beads in the Norse world. Numerous grave finds and excavations in settlement areas have revealed an abundance of beads in glass, bone, amber and other semiprecious stones. Most women's graves contain at least one strand of beads. Raw materials and waste products from the production of glass beads have been found in several Norse trading centers to include, Ribe, Hedeby, and Frojel, which suggest that glass beads were manufactured in major Norse trading centers.

Definitions

Beads are made in three basic ways: wound, pierced, and cut.

Wound bead: The glass is heated and then wound onto a prepared mandrel. The mandrel is prepared by applying bead separator to the mandrel to prevent the glass from adhering permanently to the mandrel.

Pierced Bead: The glass is heated and then dropped into a mold or just dropped onto a graphite surface. The molten glass is then pierced with a cold metal rod in order to make the hole.

Cut bead: Glass tubing is heated and then stretched to obtain the desired thickness of the bead. The Tubing is then cut with glasscutters to obtain the individual beads.

Evidence of Glass Beads in the Norse Countries

Beads from Denmark

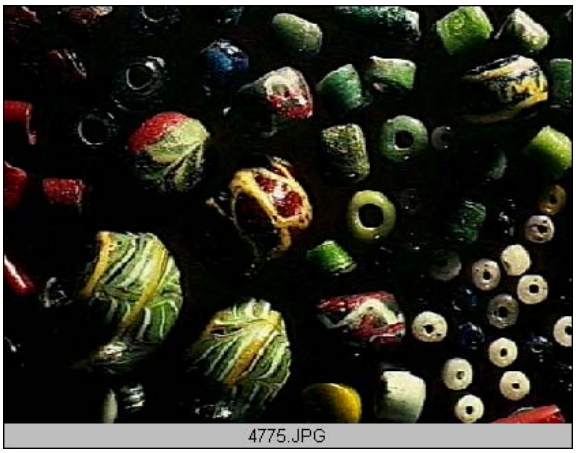
Lundeborg Denmark, Manufacturing Center: In 1987 Per O. Thomsen put forward the idea that there was local bead manufacturing in Lundeborg (Leirje 1995 p.20). His evidence consists of waste material from the workshops, which is scattered throughout the site. He also has found glass beads and pieces of broken glass that show indications that they were being worked into glass beads. The waste from this site has several characteristics that indicate wound bead manufacture, as shown in the picture below. Several pieces show plier marks where the glass was pulled into stringers or held in order to manipulate the hot glass. Stringers are thin rods of glass that have been pulled out of a larger diameter glass rod for use in decorating beads. Lundeborg also produced several small finds of broken glass and glass beads. Over 140 pieces of broken glass have been found in the trading center which could suggest that the glass was deliberately brought to the site as raw material for glass manufacture (Leirje 1995 p.22). A total of over 360 glass beads were recovered from the settlement. This large number of beads for a small settlement combined with the bead manufacture waste and broken glass found in the area indicates that there was a good possibility that glass bead manufacture took place at this site.

Fig. 4. Waste from glass-bead making.

Leirje p.21

Iron Age Denmark: In Denmark well over 9,000 beads from the Iron Age were preserved well enough to be classified (Leirje 1995, p.25). The early Iron Age finds had only a few beads found in each grave. Approximately half of the beads found in the early Iron Age are metal-foil beads with an outer layer of amber-colored glass. The remainder of the beads were small cobalt-blue beads. During the Viking age the silver-foil beads are also apparent. The majority of beads from the Viking Age in Denmark seem to be made of transparent or translucent glass colored in a

bluish greenish or brownish shades by copper or iron compounds in the raw material. (Leirje 1995 p.28)



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Ribe Denmark: Ribe was known as a bead manufacture site as early as the 8th century. The beads pictured here were found in Ribe (WOV 4775), and display characteristics typical of wound glass beads, such as smooth edges with no evidence of cutting (as with pulled beads), and decoration that wraps around the bead's axis, with or without feathering.


National Museum of Denmark

The National Museum of Denmark: On a recent visit to Denmark we visited the National Museum in Copenhagen. Several displays in the museum showed how beads were worn in several grave finds throughout Denmark. The beads were strung on multiple strands connected to a hook that looked very similar to a clothing hook except the hook was bent forward instead of back. The hooks were then attached to the pins in the broaches. Most of the displays had several strands of beads attached to each set of hooks with multiple colors and sizes in each strand.

Beads from Finland


Fig. 3. Glass beads used as necklaces in women's graves (Salaspils Laukskola).
Leirje p.35

Latvia Glass Bead Finds: Nine Major types of glass bead were found in Latvia from the 10th to the 13th centuries (Leirje 1995 p.33). See the Figure to the below. Large portions of the beads are ring shaped beads in yellow and blue. The 10th to 12th century finds are smooth, indicating a wound or pierced origin, and transparent between 6 and 10mm in diameter. Approximately 1/5th of the beads found between the 10th and 13th centuries are foil beads. An excavation in Riga in 1973 produced evidence that there was local glass manufacture at the end of the 13th century. The workshop produced melting crucibles and over 1,000 glass beads in various colors. Glass beads were consistently found in women's graves between the 10th and 13th centuries in Latvia. Up to the 12th century the

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quantity of beads were small then in the late 12 and early 13th centuries larger ornaments were found. Other ornaments such as Arabic coins were added to glass necklaces as ornamentation. Aland, Finland produced several finds of beads in various colors and patterns to include eye beads, seed beads, segmented beads and cylindrical beads.

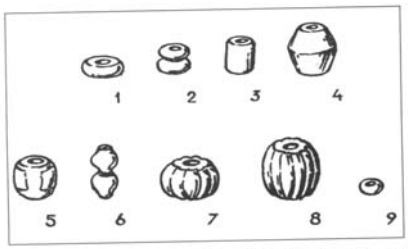

Fig. 1. The types of glass bead found in Latvia from the 10th to 13th centuries. 1-2: annular; 3: cylindrical; 4: double trapezoid; 5: barrel-shaped, with foil; 6: lemon-shaped; 7-8: fluted or ribbed; 9: tiny bead.

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Beads from Sweden

Frojel Sweden: Recently there was an extensive excavation in Gotland Sweden. This excavation produced numerous beads of high quality. The archeologists have been kind enough to catalog the extensive find of beads and publish their information.

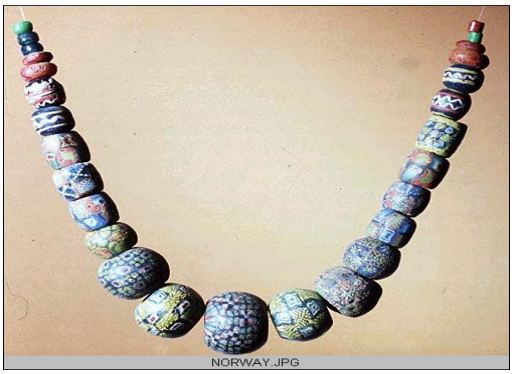
The excavation was divided into the beads found in the settlement area and those beads found in the graves. Beads were made from bone, glass and metal. Several grave finds show a large number of glass beads in various colors, shapes and sizes. The glass bead sizes range from as small as 5 mm in diameter to 20 mm in diameter. The photograph to the right are beads from a female grave. These beads show decoration methods such as stripes, dots and feathering. Some of the beads are eye beads and still other beads are undecorated.

The bead collection abow is from a female grave from Tofta, Gotland. The woman (around 15 yerars old) had a necklace of 152 glassbeads of different colours and shapes. The grave is from the 8th C. Photo B. Zachrisson.

During the Iron Age in Sweden the beads were strung together and carried on metal plates with holes in them for the strings. Later during the late Iron Age the metal plates changed to represent hooks and were attached to the broaches. (Carlsson p.2)

The pictures to the left are beads from Frojel Port of Trade. These beads show a large variety of color and decorating techniques. All of the beads shown are part of a larger collection of beads excavated from this site.

Beads from Norway



Nordland Norway: This site produced a very complicated and highly decorated necklace. The beads are decorated with millefiori, an Italian word which translates to a "thousand flowers." Bundling several canes of glass together and pulling them out to create thin canes of complex images produces Millefiori. The canes are then cut into small pieces and applied to the beads.

Of all the beads found in the Norse world that I have documented, Norway seems to have the largest and most complex beads.

Production methods of wound glass beads

In the Norse world the evidence from excavations in Ribe, Hedeby and Forjel indicate that glass was imported to the region in order to make the glass beads. Glass was imported in the form of broken glass fragments from drinking vessels and as manufactured glass rods from Italy. The glass was then worked in workshops in the major trading centers to produce the three main types of beads, wound, pierced and cut.

Wound beads were produced by heating the glass in a flame and then wound onto a prepared mandrel, hence the term "flamework" or "lampwork." (Carlsson p.5)

The National Museum of Denmark conducted several experiments in the production of glass beads. In their experiments, the museum created a small clay furnace with a bellows attached. This small furnace looks remarkable similar to a small metal working furnace. The fire is heated to approximately 1200 F in order for the glass to melt. The glass rods are inserted into the furnace and then worked in the heat of the furnace to produce the wound bead. Once the glass was softened enough to work, it was wound onto a mandrel and then decorated. They were able to produce several beads using this small furnace.

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