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Classification of Some European Trade Beads from Louisiana and Mississippi

John B. Huner
Arkansas Archeological Survey

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A Classification of Some European Trade Beads From Louisiana and Mississippi

by John B. Huner

Arkansas Archeological Survey, Conway, Arkansas 72032

Abstract

The sources of trade beads found in archeological sites in North American may be discovered through a system of bead classification. Typology should be based on shape, size, materials, color and translucency, decoration, and method of manufacture. A chronology can then be established. Ethnological data may reveal European contact and intertribal trade.

Glass beads have a long history; in fact, they were manufactured in Egypt as early as the 4th millennium B.C. (Turner 1936). The production and dispersal of glass and glass beads progressed up until the fall of the Roman Empire. The art of glass manufacture, lost during the Dark Ages, was revived in the 12th and 13th centuries, and Venice became the center of this industry. It is said that the bead industry became prominent after 1295, when Marco Polo returned from the Orient with tales of the insatiable desire of nobles of that part of the world for gems (Diamond 1953). The manufacture of imitation gems and beads of glass quickly established itself as the mainstay of the Venetian export trade. During the Age of Exploration trade beads were so important to trade with primitive peoples that their production continued to support the Venetian industry as long as Italy controlled their manufacture. In Venice, guilds were formed and other European governments sought then to establish industries in England, France, Spain and other countries.

Beads were used as an item of barter with primitive peoples at very early times. This practice may date back to the Romans (Diamond 1953). The earliest known date for the introduction of trade beads into the New World is October 12, 1492, by Columbus. His Log is quoted as follows:

> Soon after a large crowd of natives congregated there . . . In order to win the friendship and affection of that people, and because I was convicted that their conversion to our Holy Faith would be better promoted through l o v e than through force, I presented some of them with red caps and some strings of glass beads which they placed around their necks, and other trifles with which we have got a wonderful hold on their affections.
>
> Oct. 15. A man from Conception Island was presented with a red cap and a string of small glass beads. (Orchard 1929: 14)

Many other similar accounts exist in old journals and some exist almost with a folk tale aura, such as the Manhattan Purchase.

It is not too clear where trade beads were manufactured. Venice, of course, is the most logical and preferred answer, but Diamond (1953) implies that, although the British and French were buying the majority of the trade beads that they used from Venice, they still manufactured some of their own. The Spanish had a glass factory at Barcelona whose product was comparable to that of Venice (Bushnell 1937), and as early as 1611 there was a glass factory at Jamestown which manufactured glass beads for trade with the Indians (Bushnell1937; Rogers and Beard 1948). It is the author's opinion that common sources of supply were used or that craftsmen with similar backgrounds and training were to be found in glass factories all over Europe. In the factory established at Jamestown, as stated in the **Records of the Virginia Company,** ". . . 6 strangers

Italians [Rogers and Beard 1948: 48] Skillful in making of Glasse and Beads to go over to Virginia to be employed in the aside work. . ." (Bushnell 1937: 28). It can be seen how men could manufacture similar types of beads in different factories; however, it is felt that certain types of beads will be associated with a given European group and given period of time.

To establish any types of European trade beads there must be a system of classification and as the basis of any system of classification there must be criteria which by their definitions limit groups and allow an individual artifact to be associated with a given group and located in time and place. The typology of trade beads, however, is unique. Because they are manufactured, trade beads may appear to be of different groups, when in reality they are of the same type. For this reason a classification of beads cannot be too exact. Beck states, "To describe a bead fully it is necessary to state its form, perforation, color, material, and decoration" (1928 p.B.). None of the other works researched proposed any criteria except shape, size, and color. It is the author's opinion that the following criteria for trade beads should be used: shape, size, materials, color and translucency, decoration, and method of manufacture. It is believed that describing the perforation can be omitted, for the method of manufacture determines the perforation.

The three most important characteristics of trade beads are shape, color, and translucency, and decoration. The color and translucency of a bead are most difficult to determine. The abundance or lack of materials and moisture in the soil affect the rate of decomposition so that a bead which was originally clear may appear to be white and opaque after a hundred years in the ground. The decoration of a bead is easily determined and described but the shape of a bead is most difficult to describe accurately.

Quimby (1939) and Orchard (1929) used the terms elongate-spheroid and oblate-spheroid in the definition of bead shape while Beck (1928) uses more conclusive terms. The latter will be followed in this paper.

The following classification and definitions of shape have been set forth by Beck (1928: 2-11) and his work is used with some modification by the author.

Beads have been made in a variety of shapes and forms but for the most part trade beads can be considered as regular beads. A regular bead is one whose shape is a simple geometric form that can be determined by its longitudinal and transverse sections. The transverse section is divided into two classes: round (one having a circular perimeter of its cross section) and faceted (one having a series of straight lines composing the perimeter of its cross section.) A round bead's transverse section is circular whereas a faceted bead's transverse section is described by the geometric figure that its perimeter forms. A bead in which the distance through the longitudinal axis is greater than one-third (1/3) but less than nine-tenths (9/10) its diameter is referred to as short. A bead whose length is greater than nine-tenths (9/10) but less than one and one-fourth (1¼) its diameter is termed standard. In the standard bead, the length-diameter ratio is approximately 1:1. A bead whose length is greater than one and one-fourth (1¼) its diameter is termed long.

To establish the longitudinal section of a trade bead, it must first be determined if the profile of the longitudinal section is convex or straight. If both the profiles of the longitudinal and transverse sections are round then a bead may be oblate, spherical, or elipsoid if the length is short, standard, or long, respectively. A bead with flat ends and a convex profile is termed a barrel. The cylinder is a bead whose longitudinal section has a straight profile and flat ends. The above mentioned characteristics occur in round beads. Faceted beads are described by their length and the solid geometric figure formed by the faces.

TRADE BEADS-BASIC SHAPES

(after Beck,1928)

LENGTH	TRANS-VERSE	LONGITUDINAL SECTION		
		CONVEX PROFILE		STRAIGHT PROFILE
		CIRCULAR	BARREL	CYLINDER
SHORT	CIRCULAR	Oblate	Short Barrel	Short Tube
STANDARD	CIRCULAR	Round (Spherical)	Standard Barrel	Standard Tube
LONG	CIRCULAR	Elipsoid	Long Barrel	Long Tube

The color of trade beads in this classification of them is simply based on the outward appearance. Orchard (1929) and Quimby (1939) classify the color of beads with the terms "monochrome" and "polychrome" and offer no further discussion of color or design. Beck (1928) recognizes the importance of color but fails to discuss it. These three authors are considered inadequate. As mentioned before, care should be used in color determination. In cases where there is a range of shades, the most commonly occurring one was typed and the others mentioned. It is believed that in some instances two types differing only in color were the same but it was felt that with such a small collection an assumption could not be made. Both monochrome and

polychrome beads occur and a clear or translucent bead is considered to be monochrome. When a bead is polychrome, it is identified by its basic or background color, and the color of ornamentation is considered as part of the decoration. In some cases, a bead may be composed of two colors such as the "Cornaline d'Allepo" or where an overglaze may have been employed. These types were treated as monochrome with explanatory notes. It is often difficult to determine if an overglaze was used or if a patina has been formed. The formation of a patina also interferes with the determination of translucency.

Translucency is closely associated with color but is considered separately. Trade beads are generally not as clear as modern transparent glass but they still possess the property of transmitting rays of light so that bodies may be seen through them. Translucent beads allow light to pass through them but objects cannot be distinguished through them, while an opaque bead is impervious to light rays.

Decoration in combination with shape is the most definitive description of trade beads. Decoration is any embellishment on the surface or within a bead with stripes being the dominant form of decoration in trade beads. A stripe is defined as a band of decoration in trade beads. A stripe in a single color is referred to as monochrome and a stripe composed of two or more colors is polychrome. In some cases a stripe may consist of a group of parallel monochrome lines. A stripe of this type is termed bilinear or trilinear, depending upon the number of lines involved. A stripe may be raised, impressed, or embedded, that is projecting above, flush with, or underneath the surface of a bead. Stripes appear in three main forms of line direction: straight, that is, parallel to the longitudinal axis; transverse, or at right angles to the longitudinal axis; and spiral or diagonal to the longitudinal axis. The only transverse striped type known is the crossed triple weave in which three strips intertwine transversely to the longitudinal axis.

Another form of decoration in trade beads is molding. Beads were blown into molds while still hot, creating various designs. Some examples of designs that were molded are the leaf-scroll the gadrooned and the knobby. The leaf-scroll is a scroll of leaves encircling the bead transversely to its longitudinal axis; a glaze was added to the raised design to bring it out. A description of the design is necessary to complete the classification of molded beads. Gadrooned beads are those which have raised convex curved ridges as the decoration. The ridges appear to rise from a base surface and are opposed to fluting which is a series of concave grooves. A knobby bead is one whose surface is covered by a series of circular knobs which gives an impression of a raspberry. Orchard claims that the raspberry bead was manufactured as an imitation of the fruit (1929), while Beck (1928) implies that the gadrooned bead was originally an imitation of a melon. It is the author's opinion that the knobby bead is an evolved form of the eye, spot, or horned bead. Both gadrooned and knobby beads are found among the earlier beads of the Old World.

The material used in the manufacture of trade beads was as a general rule, some form of glass but a small percent of ceramic beads occur. It should be noted that the one ceramic type defined appears to consist of broken pipe stems, and these were probably not traded by Europeans as beads. Glass is a hard brittle substance with a conchoidal fracture made of fused mixtures of silicate, potash or lime and sometimes metal oxides. Ceramics are anything made of pottery, earthenware, or porcelain. There has been some work in the chemical analysis of glass to determine its age. This provides a worthwhile topic for research but would be too involved to be discussed in this paper.

The history of the manufacture of ceramic trade beads was not discussed in any of the works researched but the methods used in the manufacture of glass trade beads are well known and quite interesting. Orchard describes these in three paragraphs. His second describes the manufacture of what is known as the cane or drawn bead, while the third describes the wire-wound bead. The descriptions are:

> The starting point in the manufacture of beads is a rod or cane of glass and depending on whether this cane is hollow or solid the manufacture is carried on by radically distinct methods.
>
> In the case of the cane or tube we start from a gathering at the end of the blowing iron and this gathering is slightly inflated to form a hollow pear-shaped vehicle and a rod of iron is attached to the further extremity. This rod is seized by a boy who runs with it at full speed so as to elongate the glass as much as possible before it has time to cool. The thin tube thus formed may, it is said, be as much as 150 feet in length. This tube is broken into sections of convenient length, which are now sorted as to size by women and then are cut into shorter lengths forming bugles or tubular beads.
>
> Spherical and barrel shaped beads are made from a solid rod of glass. The extremity of the rod is melted in a blow flame and a thread of the viscid glass is laid over a revolving iron bar. The motion of the bar draws the glass before it is made into tubes or rods. (1929: 83).

These two types are easily distinguished because, in the case of the wire-wound spiral, flaws appear in the bead. This method is usually found in the larger trade beads. Colored rods are fused on the surface of the main cane. It should be noted that the method used in the manufacture of can or drawn beads would rule out Quimby's (1939) type referred to as a "jointed"

bead. It is the author's opinion that the "jointed" bead is no more than an incomplete severing of the cane during manufacture.

The trade beads which were typed came from the archaeological collection at Louisiana State University. The European associations are assumptions based on ethnographic data; i.e., the Angola Farm and the Bayou Goula sites were known to be under French domination while the Chickasaw Old Fields were associated with the English. In fact, it has been said that the Chickasaw were more loyal to the English than were the Iroquois (Josephy 1961). In some cases beads associated with European groups have been found among Indians loyal to another group. This is believed to have been caused by trade among the Indians themselves or by one European group trying to win the tribe away from the other group. An example of this is the type known as the Cornaline d'Allepo. It is known as the "Hudson's Bay Beads", that is, from the Hudson's Bay Company. It is Venetian in origin and found widely throughout North American where it was distributed by the Hudson's Bay Company, yet one example is found in this collection. Since there is only one occurrence it should be noted that the collection is not complete. There is also no association as to site for this bead.

The date of introduction of beads also causes some difficulties. De Soto was the first European in the area and is dated here from 1539 through 1541. It is presumed that he did not trade with the Chickasaws, Houma, or Bayou Goula; however, his journals do mention trading beads. LaSalle in 1682 also had contact with three groups. La Page Du Pratz states:

> "When they have bead **(rassade)** they make necklaces composed of one or many rows. They make them long enough for the head to pass through. The rassade is a bead of the size of the end of the finger of a small infant. Its length is greater than its diameter. Its substance is similar to porcelain. There is a smaller one, ordinarily round and white. They value it more than the other. There is a blue and one of another style which is banded **(bardales)** with blue and white. The medium sized and smallest are strung to ornament skins, garters, etc." (Swanton 1911: 56).

We can assume that Du Pratz was in the Lower Mississippi Valley from 1718 to 1730 and that the beads which he speaks of were European. The knowledge of beads probably originated around 1700 with Iberville's introduction of trade beads, but there is some evidence that the beads may be older than the above mentioned date, especially among the Chickasaw Old Fields beads. Jennings (1941) states that many of the types found at the Chickasaw Old Fields site were the same as those found by Bushnell in Virginia. Bushnell believes that the beads which he found are of Spanish origin (1937), but it is the author's opinion that the beads are English, for there is no record of post-DeSoto Spanish contact with the Chickasaws. It is possible, however, that the beads in Virginia are Spanish and that the English and the Spanish had a common source of manufacture.

If a common source of manufacture did exist it would mean that no one type of bead can be located as to origin. Then the approach must differ, that is, not concern itself with a source but with "complex" — many types of differing percentages. This complex would then be placeable in time and space and as to source. The difference between French and English beads is readily apparent. The French beads are generally bright and gaily decorated and were manufactured by the drawn method while the English beads tend to be drab and were manufactured by the wire-wound method. Unfortunately there are not enough data to determine any complex or any chronological order, for two of the sites in the collection under discussion span most of the 18th century. It is believed that with the analysis of several more sites and more ethnological data a fairly strong chronology and European source groups can be established.

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Reconstruction of An Arkansas Hopewellian Panpipe

by Gloria A. Young

Department of Anthropology, University of Arkansas, Fayetteville 72701

Abstract

Panpipes have been found in North America only on Hopewell sites. A particularly well preserved specimen from the Helena Crossing Site was described by James A. Ford. From this description a reconstruction which produced a true octave was made from native cane. Since the panpipe is a more primitive instrument than the flutes in use during Hopewell florescence, it is postulated that this instrument was used by shamans in the cult of ancestor worship.

Hopewellian burial mounds have yielded, since the first exploration in the mid-nineteeth century, artifacts made of a square or rectangular sheet of hammered metal, usually copper, folded over with the edges meeting and overlapping in the center of the back. The front of the sheet of metal is found to be corrugated to form two to five smooth, rounded ridges. At first these objects were considered ornaments; later when tubes of bone or reed were discovered intact inside, they were thought to be either joined whistles or torches. Recently they have come to be considered true panpipes, a musical instrument which seems to be unique in North America to the Hopewell culture. So exclusive is the panpipe to this culture, in fact, that it is considered a diagnostic trait.

The latest and best description of a Hopewellian panpipe is found in James A. Ford's 1963 report of the burial mounds at the Helena Crossing site at Helena, Arkansas. The reeds and plugs of two of the tubes of this artifact were found intact. Even with Ford's exact description there is still some question as to whether or not these objects are actually panpipes. Several other questions concerning these artifacts also arise: If they are panpipes why do they occur isolated in space and time from all other examples of panpipes? What purpose did they serve in the Hopewell cult which made them unique to this culture? Perhaps these questions can be answered somewhat by an examination of the artifact itself.

The first artifact of this kind found by archeologists was probably the one from the Marietta, Ohio, mounds. It was a typical in that it was covered with a sheet of silver. The specimen was described and figured by Atwater in the **Transactions and Collections of the American Antiquarian Society** in 1820 and was said to have five tubular sections (Mills 1926: 265). It may have