

DIVING INTO THE PAST

*Theories, Techniques, and Applications
of Underwater Archaeology*

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as controls in North America is not as great as we could wish. Ste. Marie, Ontario, with its ten-year French occupation is ideal; Jamestown, Virginia, has a longer time span but is equally important, if not more so, because of the greater range and quantity of its artifacts. From such sources we are rapidly building a large body of reference data which will be of immense value to historical archaeologists, provided they know where to find it.

I would like, however, to express a word of caution about this technique. When reliable data is lacking, a great temptation exists to accept evidence for seriation purposes from loosely identified and dated sites. The danger is insignificant so far as historic white sites are concerned, for most of them are recorded, but it is great with regard to contact Indian sites. There one often finds quantities of glass beads, strike-a-lights, vanity cases, paste jewelry, and other materials of a commercially trifling nature, as against the hardware, bricks, window glass, and more substantial materials from the white man's sites. These are precisely the things for which it is hardest to secure good documentation, and the archaeologist is often tempted to date such a site on general grounds.

For example, we may find that the area where the site is located was not contacted by white men until a certain date. We assume this date for our site, and we then proceed to cross-reference it to other sites and build up an elaborate structure of identification and dating. Although this may be convincing to the archaeologist, it will not satisfy the historian, and we must always keep that severest of critics in mind. I am acutely aware of this problem from my own work on glass beads, where firm dating and identification is almost impossible. As things stand, I cannot be certain of the source or the dates of more than a small portion of these artifacts, and I am consequently dubious of their value for dating sites. It is my intention to subject the present dating assumptions on glass beads to punch-card analysis to see how they stand up under examination.

There is one further topic I would like to touch on before closing. The numerous and excellent papers written by our colleagues would be far more useful if they were more generally known. Often they are not brought to the attention of such outlets as *American Antiquity*, and thus they are too often overlooked. In addition to printed reports, I am sure that a large store of unpublished information must exist. It com-

prises not only factual material for which no suitable outlet was available, but also photographs and descriptive notes on specimens.

In a paper on trade goods techniques published in 1951 I suggested the establishment of a clearinghouse or central file for such information. My thought then was that such a clearinghouse could shelter a master bibliographic and photographic file, and have as its essential purpose the cutting down of duplication of effort. The need seems still to exist. Perhaps our number is reaching the point where it will soon be possible to have an organization and a modest publication of our own. If this seems to be adding one more subscription to our already overburdened pocketbooks, the answer can only be that the money would be well spent, for such a publication would provide better communication among specialists than is now possible and would keep us better informed of the results of recent research. At any rate, I again offer the idea for your consideration.

Finally I would like to mention the great fund of knowledge and information possessed by specialists in various fields. Just as there are those who know the histories of particular regions better than others, so there are scholars who have specialized intensively on certain research topics. I refer to cultural historians—people who know intimately the history of ceramics, glass, fashions, textiles, firearms, and a host of other specialties. As archaeologists we ought to draw upon the knowledge of such students. It is more economical and efficient of time and effort to do so than to try to find all the answers ourselves. There will be enough left for the archaeologist to worry about. The problems of identification have given rise to a whole new file on cultural history within the field of historical archaeology—a file contributed by those men to whom we owe so much for their research on kaolin pipes, gunflints, and trade silver, to name but three topics.

European Trade Objects as Chronological Indicators

GEORGE I. QUIMBY

ONE OF THE CURRENT aims of archaeological research in North America is to bridge the gap between the historic and the prehistoric—to discover the relationships between known

ethnic groups of Indians and the prehistoric cultures that have been revealed by the use of archaeological techniques. This has been, and still is, a difficult task in many areas because of the lack of suitable sites and historical documents dealing with material culture. For the most part necessary facts on material culture of the historic period must be sought beneath the earth or under water and must be recovered by archaeological means. Ethnohistory is important, but thus far it is an adjunct to archaeology in the upper Great Lakes and adjacent regions.

Most historic period sites in the upper Mississippi Valley and the upper Great Lakes area are without historical documentation. After excavation or testing of a historic period site, the first problem is to date it. In a general way, it is now possible to estimate dates by the presence of diagnostic assemblages of trade goods—material objects used by white men in the fur trade with Indians. Some of these objects were made especially for the fur trade either in Europe or colonial America. Others were regular European goods² for which there was a demand on the part of the Indians.

European trade objects may be used as index fossils or chronological indicators for the archaeology of the historic period. In establishing a regional chronology based upon trade goods, I have found it convenient to divide the entire historic period into three segments: the Early Historic Period, 1600 to 1670; the Middle Historic Period, 1670 to 1760; and the Late Historic Period, 1760 to 1820 or slightly later.

During the Early and Middle periods, the French were the dominant European group in the upper Great Lakes and the upper Mississippi Valley. In the Middle period these regions were supplied with the same kinds of trade objects as the lower Mississippi Valley. In the Late Historic Period these areas were under British domination, and at the beginning of this period there was a relatively radical shift from French to British trade goods.

The types of European trade objects most apt to be found in undocumented village or burial sites of historic period Indians are: glass beads, iron knives, kaolin pipes, iron axes, brass kettles and pots, glass bottles, gunflints, guns,

brass rings, lead fabric seals, iron hoes, religious medals, jew's-harps, iron awls, needles, thimbles, fishhooks, silver ornaments, scissors, mirrors, Chinese and European porcelain and china, and miscellaneous objects that were relatively rare. I have deliberately excluded from consideration objects used principally by white men at forts, trading establishments, and missions, and not ordinarily found at Indian village sites or cemeteries. Some overlapping exists, however, because certain trade objects found at Indian sites also turn up at forts and missions.

Glass beads that are diagnostic of the Early Historic Period are polychrome chevron or star beads and long tubular or bugle beads, usually monochrome. These are the so-called "candy beads." They may be simple glass tubes, or canes, broken into desired lengths, or they may be complicated layers of different colored canes arranged one over the other in as many as six layers and then broken into desired lengths and ground at the ends to produce the star or chevron effect. Except possibly as heirlooms, these beads are lacking in the Middle Historic Period.

Many different bead types are diagnostic of the Middle Historic Period. Monochrome styles include a raspberry shape with small nodes, a decahedron shape with soft or rounded facets, wire-wound egg shapes of various sizes, spheroids, and elongate-spheroids. Polychrome styles include many varieties of elongate-spheroids with inlaid vertical or spiral bands, inlaid beads that are spherical in shape, a spheroidal bead with three wavy transverse inlaid bands, a melon or gooseberry bead, and the "man-in-the-moon" bead which is disk-shaped with an inlaid new moon and stars.

Diagnostic of the Late Historic Period are brightly colored monochrome beads with more than ten sharply cut facets. They are smaller than the softly faceted beads of the preceding period. Others typical of the Late period are round or spheroidal monochrome beads, very small tubular beads, and small elongate spheroidal beads. Polychrome beads are generally lacking except for the rare occurrence of an elongate spheroidal bead with a transverse inlay or appliqué of a leaflike wreath or series of scrolls. (Certain kinds of very small beads and a reddish bead with a blue center—*Cornaline d'Alleppe*—are found in all three periods and with other thus far nondiagnostic beads have not been considered in this brief presentation.)

Iron knives of two blade forms with French names stamped on them and a transverse flange

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jew's-harps with iron or brass frames, scissors, and iron hoes, are characteristic of the historic period in general.

Brass objects, usually made of sheet brass from broken kettles, are strictly speaking not trade goods, but were made by Indians from a foreign material obtained through trade. Although such objects as hair pipes, tubular beads, tinkling cones, and arrowheads of several kinds were present in varying degrees throughout the entire historic period, they were most abundant in the Middle period. In the upper Great Lakes region, arrowheads of brass and iron are rare or absent from Late period sites but are relatively plentiful in those of the Middle and Early periods.

Porcelain and chinaware are more characteristic of forts and trading establishments in the Middle and Early periods. However, "Staffordshire-style" china with printed designs is frequently found in Indian sites of the Late Historic Period.

Religious medals of various kinds are characteristic of the Early and Middle periods. They are rare, if not lacking, from Indian sites of the Late Historic Period.

Silver ornaments are the best criteria of the Late Historic Period. They consist of double-barred and single-barred crosses of various sizes, crescent-shaped and round gorgets, bracelets, arm bands, headbands, cradleboard decorations, earrings of various sorts, ornate brooches of several styles, and small common brooches. These ornaments are never present in the Early and Middle periods. They are truly diagnostic of the Late period and are usually found in Indian burial sites.

In dating an Indian village or burial site or the trading cargo of a sunken canoe or ship, one must consider the entire assemblage of trade goods. An Early Historic Period Indian site ideally might contain chevron and stick (bugle) beads of glass, necks of glass bottles with appliqué rings well beneath the lip, iron arrowheads, religious medals, and brass kettles, accompanied by aboriginal pottery, pipes, arrowheads, axes, etc. The aboriginal material culture is still intact and the trade goods are additions to it.

An Indian site of the Middle Historic Period might contain numerous glass beads of the many kinds described, gun parts, spall and

THE TRADE OBJECTS below are representative of the Middle Historic Period (1670-1760). Top row (left to right): fragmentary iron hoe, bottleneck with appliqué ring, and iron axhead. Bottom row: two brass hawk bells, gunflint with round heel, fragmentary gun lock, monochrome and polychrome glass beads, and the iron frame of a jew's-harp. The axhead is four inches long. Courtesy of the author.

