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A FEW NOTES ON THE USE OF TRADE GOODS IN ESTABLISHING
HISTORIC CHRONOLOGY OF ARCHAEOLOGICAL SITES

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During the past few years excavators in all parts of the United States have been working on archaeological sites having very definite historic backgrounds. However, in many instances the students employed in such work have discovered that the old methods of describing European materials found in conjunction with aboriginal remains are no longer useful. It now becomes important to know, as nearly as it is humanly possible to determine, when these objects were obtained by the Indians. The identification of specimens of European origin in a more precise manner becomes necessary because, it not only gives the archaeologist very definite period dates for his occupation of the site, but it also enables him to judge in a more logical manner the persistence of certain aboriginal cultural traits in the various areas. Toward these ends the archaeologist is turning more and more to a better analysis of the once despised European cultural remains.

In this brief outline I shall endeavor to present a few of the items which may be used as common denominators in assembling chronological data. I shall not attempt to give descriptive details, how to determine the relative values of each specimen or class of materials so used. Each division of such specimens has its own voluminous background and the student who encounters these scraps of his own ancestral culture will discover that the study of any one phase of his own tribal ethnology and archaeology is far more extensive and time exacting than the often vague and indefinite determination of prehistoric cultural remains of the American Indian.

Glass Beads: These insignificant and often worthless baubles may well be termed the most common denominator in determining the answer to almost any problem in historic-archaeological chronology. Glass beads were from the first contacts in the 16th century the one stable trade element among practically all of the tribes of North America. They have continued in vogue until the 20th century. Thus we have a virtually unbroken pedigree of a trade element which can be traced down the centuries in

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the different regions. The use of glass beads in determining the chronology of any historic site is dependant upon a number of additional factors. First, the mass of evidence as produced by the presence of certain type beads found in a number of scattered sites throughout the country must be considered in relation to the presence of other European materials of the same period. Once these fundamentals have been established for type specimens, then, the type specimens can and in most cases do, stand by themselves, and the student who has become versed in the field of historic archaeology can make his field deductions without recourse to extensive references on the subject. A safe rule for archaeologists encountering historic material is to date his discovery from the presence of the latest material. Thus we may find 17th and 18th century specimens on the same site. However, it is obvious that if certain types of glass beads which were made in the 17th century, and did not carry over into the middle of the 18th century, are found in conjunction with beads that did not originate until after the middle of the 18th century, then the problem is reduced to a simple premise; the burial or house site upon which these 18th century beads have been discovered mingled with 17th century beads, must belong to the 18th and not the 17th century.

The use of other European specimens from this or other sites now becomes important in deciding when in the course of the 18th century these particular beads were obtained. The 17th century beads offer a chance for speculation as to how they happened to be there but in reality they are unimportant when the mass of evidence supports the 18th century determination of the occupation of the site or cemetery.

To supplant the bead evidence it then becomes necessary to furnish proof of the origin of the other 18th century specimens. This is done by a multitude of approaches. There are known dates for certain mechanical inventions. Documentary and contemporary pictorial evidence in hundreds of volumes and graphic representations of the different periods of European history is plentiful. Museums and private collections

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contain actual dated specimens. The amount of evidence one may gather is limited only by the patience and ingenuity of the student doing the research.

Even in the manufacture of glass beads certain methods of manufacture as well as sizes, shapes and coloring of the beads enters into the picture. Tribal preferences, sometimes based upon aboriginal beliefs, play an important part. Thus in 16th century Mexico one might readily expect to find large, green glass beads on historic contact sites in those areas where jadeite played such a prominent part in the economic and religious life of the people. Similarly one might expect the quick adoption of red coral beads or imitations of the same among our own Southwestern Puebloan people, based upon the extensive usage of the shell beads of the same general appearance in texture and color that were traded in aboriginal times from the Gulf of California.

Likewise, in an area where quill-work was the principal mode of decorating garments, one might expect to find the fine seed beads in greater quantities than in a region where quill-work was not practiced. Of course, these observations may not always hold true, but frequently they can be used as a theoretical base upon which to work until such theories are nullified by a mass of contrary evidence, or are confirmed as facts by an equal weight of positive evidence.

Gun and Sword Furniture: The metal remains of European weapons offer another fertile field for determining the periods of Indian sites. Firearms and all sorts of edged weapons and pole arms evolved along very definite lines. Naturally, as is the case with all objects of material culture of almost any group of people, there are examples of cultural lags wherein the invention of one period is carried over into the succeeding period or periods. So it is with European weapons. On the other hand, the new inventions, for example, the methods of igniting powder in hand fire arms, do occur within definite periods and old methods become obsolete. Similarly the hilts and blades of edged weapons, swords, sabers, daggers, etc., change radically under the influence of different schools of defense and offense. There are national traits visible in such changes and these are reflected in the decorative

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elements and the workmanship of the various specimens. Not infrequently we find that an 18th century hilt may be refitted with a 19th century blade, or vice versa, an 18th century blade may have a 19th century hilt. This interchange has continued for ages. Hence, it behooves the student to know these changes in order that he may not become confused in his chronological determinations.

Metal axes whether of the common woodsman's type or battle axes of earlier periods offer other problems. When such items are copied and recopied, it is necessary to recognize the slight changes in order that proper diagnosis of that particular specimen may be made. Pipe tomahawks from various tribes offer a fertile field for such research.

Military weapons of all lands offer some of the best example of identifiable material. Usually, the military were the first to standardize equipment and often they are marked. Similarly manufacturing companies making both civilian and military equipment frequently add their marks. 16th, 17th and 18th century European specimens often bear guild trade marks. Famous armourers left their stamps upon all manner of weapons. Thus, it may readily be seen that a careful and close scrutiny of every scrap of metal found in an excavation is necessary if one is desirous of making a more accurate determination of the period of the material found.

Ornamental motifs on gun locks and all manner of gun furniture, particularly brass and bronze, silver or German silver, ornamentation, trigger guards, thimbles, butt plates, etc. may indicate the origin and period of the piece.

The shape of gun cocks, size of flints, colors of flints, workmanship on flints, etc. all have a distinct bearing upon the problem. Methods of rifling, shape of barrels, size of bore, these too play their part in the analysis of fire arms of all periods.

European Ceramics: This is a field seldom explored by the students of American archaeology and ethnology yet

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it is most important when one encounters fragments of European or American porcelains or pottery.

Needless to say the ramifications of this study are endless but it must be remembered that there are specialists in this field who have been able to trace the life histories of different wares more thoroughly and precisely than any aboriginal ware will ever be traced. Hence we have introductory dates and closing dates in the manufacture of certain European ceramics. Many fragments are marked and thus are dated. Hence the sherds of European or American vessels are most important in checking the periods of those sites upon which they are found.

Of course there are wares, or possibly I should say, fragments of wares that are too nondescript to provide accurate identification. In such instances miracles should not be expected of the specialist making the identification.

Clay Pipes: Included under European ceramics are the pipes, usually of fine white clay, found on many Indian sites. As with all objects of foreign manufacture, these pipes have definite period characteristics. A few criteria to be remembered in judging pipes manufactured in England, Holland, France or the United States are, size of bowls, presence or non-presence of the spur or heel, the shape of the spur or heel, length of stem and last but not least the sundry initials and other marks on stem, bowl and hell. When fragments of clay pipes of European manufacture are encountered, they should be scrutinized for all of these little means of identification.

Metal Ornaments: Within certain areas metal ornaments consisting of bracelets, finger rings, brooches, ear rings, head bands, gorgets, crosses, hair plates, hair pipes, etc. may be found in copper, brass, silver or alloy such as German silver. These should be examined for initials of the makers, or, if the objects are of good coin silver a series of hall marks.

The silver ornaments offer the most accurate methods of obtaining dates for the manufacture of the pieces in question. The decorative motifs and style of design frequently aid in placing the objects in a definite period. The baser metals, copper, brass and German silver are less

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valuable as time checks, with the possible exception of German silver which metal occurs within the first three decades of the 19th century and continues in vogue until the present day. Here style of ornament and designs aid in the dating of specimens.

Not infrequently thin sheet silver or German silver was used as ornamental inlay upon the stems and metal blades of pipes, tomahawks, gun stocks and pistol butts. These ornaments are sometimes found in burials or on village sites. The custom prevailed among certain tribes east of the Mississippi of cutting up or hammering out silver medals or ornaments issued to them by the various nationals. Sometimes these scraps of re-worked metal bear very definite marks that are valuable in making identifications, hence no fragment of silver, whether in the form of a recognized ornament or rolled into a metallic jingler, should be overlooked as identifiable material.

These are a few of the types of objects of European or American manufacture that should be scrutinized carefully whenever a chronological sequence is desired. Obviously it is impossible in this brief sketch to indicate within each division the methods to be used in such identification. However this simple outline may serve as a guide to students working in the archaeological field when they find specimens of other than aboriginal manufacture and turn their thoughts into allied channels of research which will ultimately prove beneficial to them in their anthropological pursuits.

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ON CAVE ANALYSIS

Robert M. Adams

Missouri is dotted with large numbers of cave shelters, many of which have been occupied by the aborigines. The most famous of these are the cave shelters of Missouri and Arkansas made known by the