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PROMOTING USEFUL KNOWLEDGE

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1865.

## ON THE DATE OF THE COPPER AGE IN THE UNITED STATES.

BY A. MORLOT.

The series of the *Smithsonian Contributions to Knowledge* opens with a splendid volume on the "Ancient Monuments of the Mississippi Valley," by Squier and Davis (Washington, 1848). In this work, as glorious a monument of American science, as Bunker's Hill is of American bravery, the authors have revealed the former existence, over a vast extent of the North American continent, of a most singular civilization, characterized chiefly by the use of native copper, derived from the district of Lake Superior, and spread, doubtlessly, by commerce over the whole country. Hence we may call those times the *copper age* of North America. The once prosperous civilization of that age faded away, and left the field to the red man, in the savage state in which he is still known to exist. Messrs Squier and Davis have shown, that the virgin forests, growing on the earthworks of the copper age, must have taken for their full development at least one thousand years, and the Normans who visited America eight centuries ago, evidently only met there with savages.

Some more light seems to be thrown on the date of the copper age, by the fact recorded in Schoolcraft's *Indian Tribes*, Vol. I, page 103. I have gone over the passage carefully, and I think the statement of which I am going to make use, bears inner evidence of being correct. Schoolcraft informs us, that at Beverly, twelve miles from Dundas, Canada West, there were discovered about 1837, extensive ossuaries, which he examined himself, and that among the bones were found amulets of the red pipestone of Coteau des Prairies (Minnesota), copper bracelets like those of the old graves in the West, a *Pyrula spirata* and a *Pyrula perversa*, both from the Gulf of Mexico, four antique pipes used without stems, and corresponding with an antique pipe from an ancient grave at Thunder Bay, Michigan, a worked gorget of sea-shell, with red nacre, and shell-beads of the same kind as those said to have been found in the gigantic mound of Grave Creek, Virginia. All this goes to characterize the ossuaries of Beverly as belonging to the time of the mound-builders, that is, to the copper age. But these ossuaries have also yielded some beads and baldrics of glass and of colored enamel, figured by Schoolcraft on Plate XXIV and XXV. The find is not single of its kind, for according to Schoolcraft, beads agreeing completely with those of Beverly, were found in 1817 in antique Indian graves at Hamburg,

Erie County, New York.\* Schoolcraft distinctly points out the beads of Beverly as being of European origin. This is unquestionable, for we know that the native industry of America had never produced glass or enamel. At Copenhagen, I discovered in the archæological museum (Altnordisk Museum, Director, Mr. Thomsen), a bead (Fig. 1), identical both in color and in its intricate composition with Figs. 11, 12, and 13 of Plate XXIV, of Schoolcraft, only a little larger, since it measures one and a half inch (English) in length. It bears the number 12,390, and is put down in the catalogue as having been found near Stockholm, in Sweden, and as bought at an auction. A fragment of a second bead (Fig. 2) of the same workmanship, but still larger, exists in the museum at Copenhagen. It bears the number 5211, and is noted as coming from a grave-mound near Skørpinge, in the Danish province of Jutland, and as having been bought at the sale by auction of Bishop Mynter's collection in 1839. Unfortunately these indications furnish no chronological date.

I bought at Hanover a baldric (Fig. 4), formed of a tube one and a half inch long, of colorless glass, with alternate longitudinal streaks of white and red enamel, quite of the same type as Figs. 13, 14, 15, 20, and 21 on Plate XXV of Schoolcraft. My specimen has had a beginning of melting, and must be of the time when the dead were burnt. But in parts of Northern Germany that custom prevailed, along with paganism, until after the tenth century, so this does not teach us much as to the age of these baldrics.

The beads mentioned at Copenhagen and the baldric of Hanover are so rare, that I have not noticed any others of the sort in the large museums of Lund, in Sweden, Copenhagen and Flensburg, in Denmark, Schwerin, Hanover, and Mainz, in Germany. They are not post-Roman. The beads of those times are very different, and of coarser manufacture, nor can I consider them as Roman. In the Museum at Copenhagen, there is one of these glass balls, of very elaborate workmanship,  $1\frac{3}{4}$  inch in diameter, called *Millefiori* (in Italy also *Fiori di S. Tennara* and *Vasia Fiori*), with a sort of mosaic or tessellated work, of differently colored enamel inside.† The specimen is put down simply as having been found in Denmark, and I was told that another of the same sort had been found in the south of Sweden. The Danish specimen shows, among the variously colored designs of the mosaic in its inside, one bit exactly of the

\* Second Part of Lead Mines of Missouri, New York, 1819.

† Mentioned at page 57 in my paper translated by P. Harry in the Smithsonian Report, 1861.

same type, consequently of the same date, as the two beads mentioned in the same museum. These balls, according to Minutoli's excellent paper on the stained glass of the Ancients (Berlin, 1836), are not of Roman origin, and are found in old Etruscan graves; also in Egypt, where they may have been manufactured at Alexandria, before the Christian era, perhaps as far back as the golden times of the Phœnicians, who were celebrated for their glassware, as well as for their commerce, and for their extensive navigation. That they sailed on the Atlantic is known, and it is probable that this was the route by which their glass reached the Baltic countries, since it appears to be missing in a general manner in Southern Germany and in Switzerland. We know besides, that the Phœnicians carried on a regular trade with Gades (Cadiz), where they met with the traders from the North.

It follows, that those glass beads and baldrics from the ossuaries at Beverly are anterior to the Christian era, and that America appears to have been visited already at that remote period by Europeans, most likely by those skilful navigators, the Phœnicians.

The discovery of America by the Phœnicians has been strongly suspected by many, and it would account in a very natural manner for the tradition of the Atlantis. The fact in itself is far from appearing improbable, when we reflect that long before the Christian era, the Alexandrian astronomers knew the earth to be round, and that one of them, Eratosthenes (third century before Christ), calculated the circumference of the earth with a surprising degree of accuracy. The celebrated French antiquarian, Letronne, examining this question with his usual penetration, even comes to the conclusion, that Eratosthenes only applied to his own imperfect data the measurement of a degree of the meridian, carried out long before his time.\* There are also other circumstances, indicating a remarkable degree of civilization and of scientific pursuit in those remote times of the Phœnician prosperity.

The find at Beverly goes to show, that a given moment of the American copper age coincided with a given moment of that European civilization, to which the enamelled beads mentioned belong, and which can hardly reach lower down than the Christian era, while it appears to go as far back as five, or even ten centuries earlier. Of course it is not to be understood, that the American copper age was

\* Pytheas und die Geographie seiner Zeit, von T. Lelewel. Hoffman, Leipzig, 1838. A capital little book, containing also Letronne's paper.

wholly parallel with the Phœnician period. It may have begun sooner, and may have lasted later.

We have thus obtained by indirect means, a chronological determination for the North American copper age. It is far from precise, but further discoveries will correct and improve it. May the interesting subject be taken up with that spirit of true scientific research, so justly to be admired in Squier and Davis's invaluable volume!

LAUSANNE, SWITZERLAND, 26th June, 1862.

EXPLANATION OF THE FIGURES. (COLOUR)

Fig. 1. Bead of enamel, or opaque stained-glass, in the Museum at Copenhagen, said to have been found near Stockholm, Sweden.

Fig. 2. Fragment of bead of the same sort, in the same Museum, from an antique grave in Denmark.

Fig. 3. Bead of the same sort, from the ossuaries of Beverly in Canada, as given by Schoolcraft.

Fig. 4. Baldrick of glass, bought at Hanover, Germany.

Fig. 5. Baldrick from Beverly. Schoolcraft's Indian Tribes, Vol. I, plate XXV, fig. 14.

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*Stated Meeting, December 5, 1862.*

Present, eleven members.

Judge SHARSWOOD, Vice-President, in the Chair.

Mr. Cornelius, a newly-elected member, was introduced and took his seat.

Mr. Dawson accepted membership, by letter dated McGill College, Montreal, November 25, 1862.

A letter acknowledging receipt of Transactions XI, XII, 1, 2, was received from the Regents of the University, dated Albany, Nov. 2, 1862.

A letter from Admiral Dupont to Mr. B. Gerhard was read, requesting that a copy of Mills' Atlas of South Carolina, captured at Beaufort in November, 1861, be presented to the library.

NATURAL SIZE.



Fig. 4.



Fig. 1.



Fig. 5.

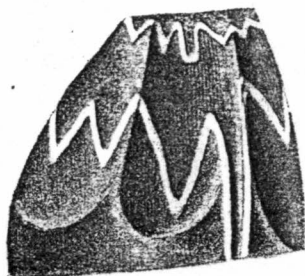


Fig. 2.

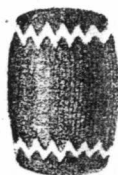


Fig. 3.

