

ON THE DATE OF THE COPPER AGE IN THE UNITED STATES

A. Morlot

During the mid-19th century, some scholars believed that the chevron beads found in early Indian graves had been brought to North America by globe-trotting Phoenicians or representatives of some other higher European civilization. A paper on the subject published in 1862 by one of the theory's proponents is reproduced here, along with contemporary descriptions and illustrations of the beads under discussion.

As Morlot's paper is little known and represents an interesting phase in bead research, it is presented here in its entirety, accompanied by relevant excerpts and illustrations from the two Schoolcraft (1819, 1853) reports cited by Morlot (*see* Appendices A and B).

EDITOR'S INTRODUCTION

Bead research was in its infancy in 19th-century America. Very little was known about the chronological position of the glass beads that were occasionally found in early Indian graves, and their origins were often equally problematic. This was especially true of chevron beads whose complex structure and striking end pattern enticed researchers to contemplate exotic origins for them. One such scholar was A. Morlot of Lausanne, Switzerland, who published a classic paper on the subject in 1862. While his ideas now seem far fetched and flighty, they were deemed worthy enough at the time to be presented to the prestigious American Philosophical Society in Philadelphia. Of course, not everyone shared his views. In fact, Henry Schoolcraft (1853: 103-4), who published descriptions and color illustrations of the Canadian beads referred to by Morlot, logically concluded that they dated to the period between the arrival of the French (1608) and the date of the beads' discovery (1837). It is now generally agreed that faceted seven-layered chevrons in northeastern North America are attributable to the period from ca. 1550 to 1680 (Kent 1983; Smith and Graybill 1977: 59). The square-sectioned beads with straight and twisted bodies are similarly dated: ca. 1600-1710 (Kent 1983; Kenyon and Kenyon 1983; Pratt 1961).

THE MORLOT REPORT

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 [to the west of present-day Toronto, Ontario], 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 *Pyruia spirata* and a *Pyruia 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.¹ 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 archaeological museum (Altnordisk Museum, Director, Mr. Thomsen), a bead (Fig. 1 [Pl. VD]), identical both in color and in its intricate composition with Figs. 11, 12, and 13 [Pl. VD, Fig. 3] 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 [Pl. VD]) 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 Skoerpinge, 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 [Pl. VD]), 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 [Pl.

VD, Fig. 5], 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, 1-3/4 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.² 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 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 Phoenicians, 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 Phoenicians 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 Phoenicians.

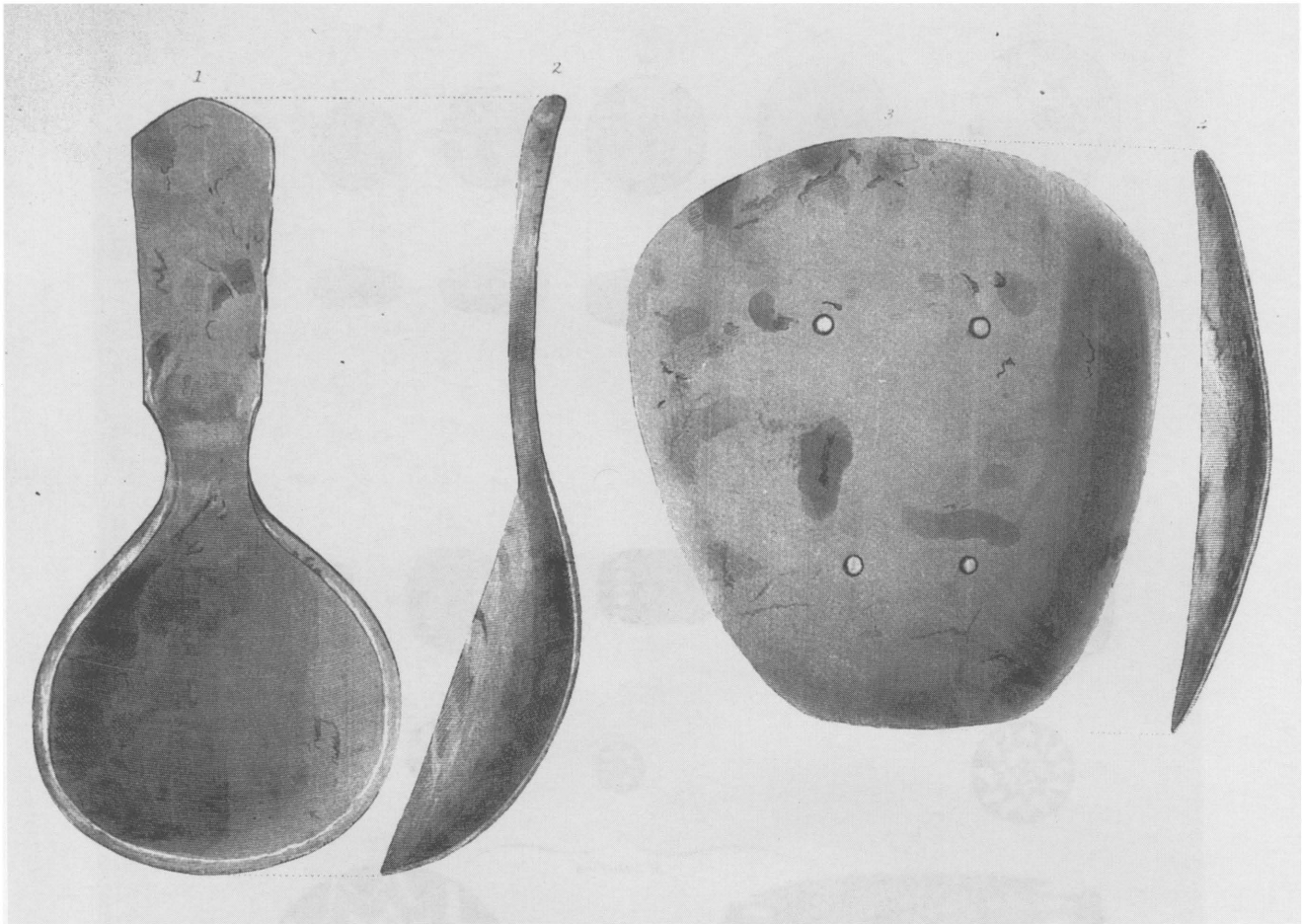


Figure 1. Schoolcraft Plate 19. "Indian spoon and gorget" from the Beverly ossuaries, southwestern Ontario: 1-2, spoon of "mineralized wood;" and 3-4, shell gorget 7.6 cm in width.

The discovery of America by the Phoenicians 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.³ There are also other circumstances, indicating a remarkable degree of civilization and of scientific pursuit in those remote times of the Phoenician 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 wholly parallel with the Phoenician 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

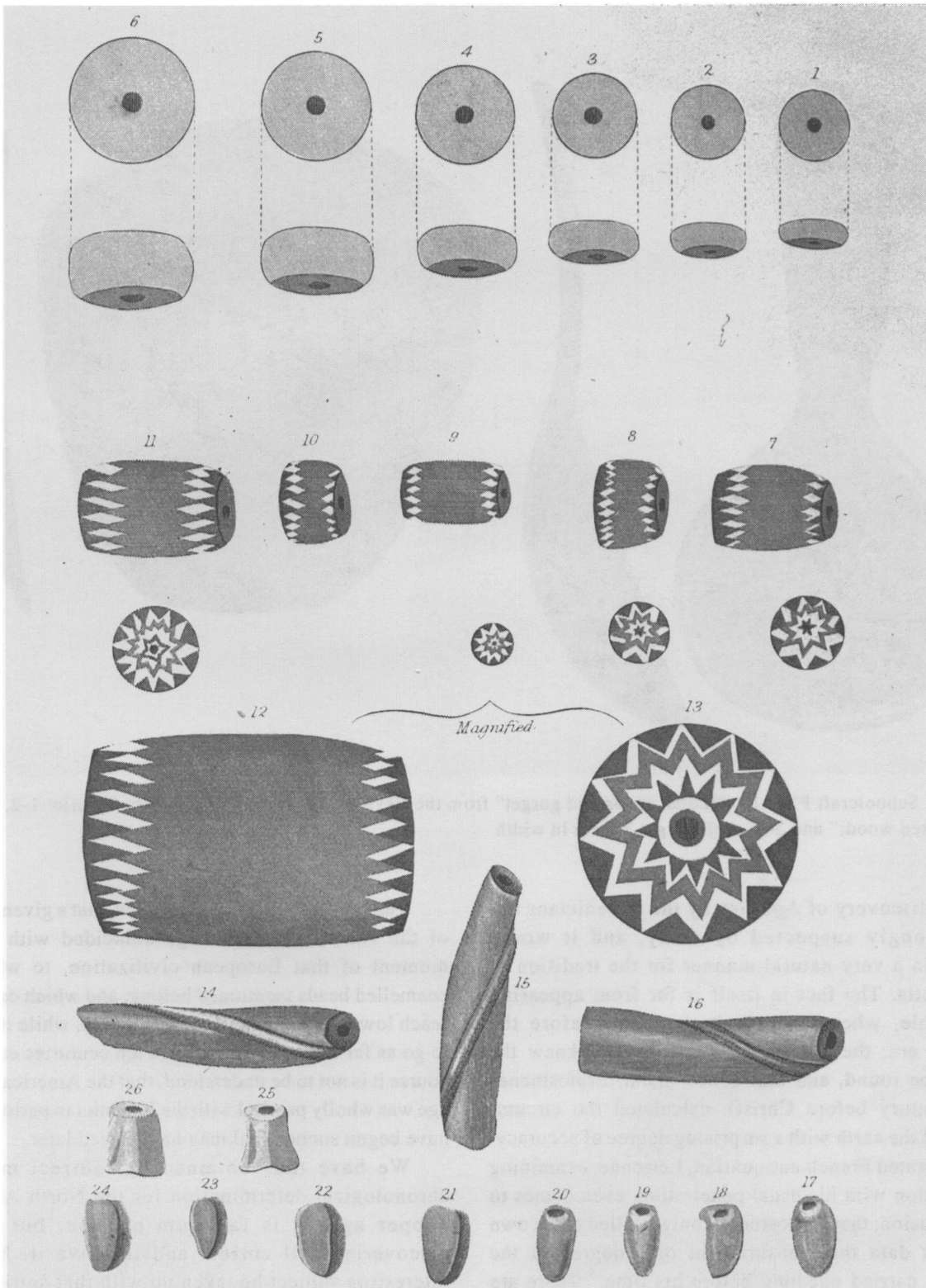


Figure 2. Schoolcraft Plate 24. Glass, shell and tooth beads from the ossuaries at Beverly: 1-6, shell beads from an unrelated site; 7-13, chevron beads; 14-16, columella beads; 17-24, eight different sizes of shell beads; and 25-26, human teeth used as ornaments. No. 11 is 2.2 cm long.

MORLOT'S ENDNOTES

1. Second Part of Lead Mines of Missouri, New York, 1819.
2. Mentioned at page 57 in my paper translated by P. Harry in the Smithsonian Report, 1861.
3. Pytheas und die Geographie seiner Zeit, von T. Lelewel. Hoffman, Leipzig, 1838. A capital little book, containing also Letronne's paper.

APPENDIX A: BEADS AND OTHER ARTIFACTS FROM THE BEVERLY OSSUARIES, CANADA WEST, BY H. SCHOOLCRAFT (1853)

[In 1843,]... I visited a very celebrated discovery of Indian ossuaries at Beverly, twelve miles from Dundas, in Canada West. This discovery had been made about 1837, and had produced much speculation in the local papers, and many visits from antiquaries and curiosity hunters. The site is an elevated beech-tree ridge, running from north to south. The trees appear to be of the usual age and mature growth, but standing at considerable distances apart. The ossuaries are formed invariably across this ridge, and consequently extend from east to west. I examined a deposit which measured eight feet by forty, and six feet deep. It was an entire mass of human crania, leg, thigh bones, &c., in the utmost confusion. All ages and sexes appeared to have been interred together. It appeared to have been laid bare, and dug over for the purpose of obtaining the pipes, shells, and other relics with which it abounded. Ten or eleven deposits of various sizes existed on the same ridge of land, but preserving the same direction. These were not, however, all equally disturbed by the spirit of finding relics, but this spirit had been carried to a very blamable extent, without eliciting, so far as I learned, any accurate or scientific description of these interments.

Among the articles obtained in the before-mentioned excavations, I insert drawings, (Plate 35, Figures 1 and 2,) of the full size of two species of sea-shells, the *P. spirata* and *P. perversa*; four species of antique clay-pipes, (Figures 5 and 6, Plate 8, and Figures 1 and 3, Plate 9); a worked gorget (Figure 3, Plate 19) of sea-shell, of which the original nacre of red is not entirely gone; five specimens of

curious opaque-colored enamel beads, (Figures 7, 8, 9, 10, and 11, Plate 24); three baldrics of bone [ed.: actually the columella or spire of a marine whelk], (Figures 14, 15, and 16, Plate 24); four of opaque glass twisted, (Figures 12, 13, 14, and 20, Plate 25); eight different sized shell beads, (Figures 17, 18, 19, 20, 21, 22, 23, and 24, Plate 24) and eight amulets of red pipe-stone, (Figures 1, 2, 3, 4, 5, 6, 9, and 11, Plate 25); three of shell or bone, (Figures 7, 23, and 25, Plate 25); three of bears' teeth, (Figures 26, 27, and 28, Plate 25.)

Figures 8, 10, 15, 16, 17, 18, 19, 21, 22, and 24, Plate 25, are minor specimens of glass or enamel.

Figures 25 and 26, Plate 24, are human teeth, used as ornaments.

There is abundant evidence that the practice of forming public ossuaries had been continued after the arrival of the French in 1608. The shells are such as must have been derived from traffic with the southern or western Indians. The pipes are of an antique and peculiar pattern, and were employed without stems: in this respect they correspond with the antique pipe from an ancient grave at Thunder Bay, Michigan, and also, it is thought, with certain pipes mentioned by Professor Dewy as found at Fort Hill, Genesee Co., N.Y.¹ The shell beads are of the same kind, precisely, as those which were discovered in the Grave Creek Mound, Virginia, as described in the first volume of the Transactions of the American Ethnological Society.² By the decay of the surface of the shell, which constituted their inner substance, they appear to be of the same age.

The amulets of red pipe-stone consist of bored square tubes, of the peculiar sedimentary rock existing at the Coteau des Prairie, in the territory of Minnesota; and are identical, in material, with the cuneiform pieces of this mineral, which were dug at the foot of the flag-staff of old Fort Oswego, N.Y.³

The colored enamel beads are a curious article. No manufacture of this kind is now known. They are believed to be of European origin, and agree completely with the beads found in 1817, in antique Indian graves, at Hamburg, Erie Co., N.Y.⁴

The ancient Indians, before the introduction of European manufactures, formed baldrics for the body from the hollow bones of the swan and other large birds, or deers' bones, in links of two or three inches long. These were strung on a belt or string of sinews

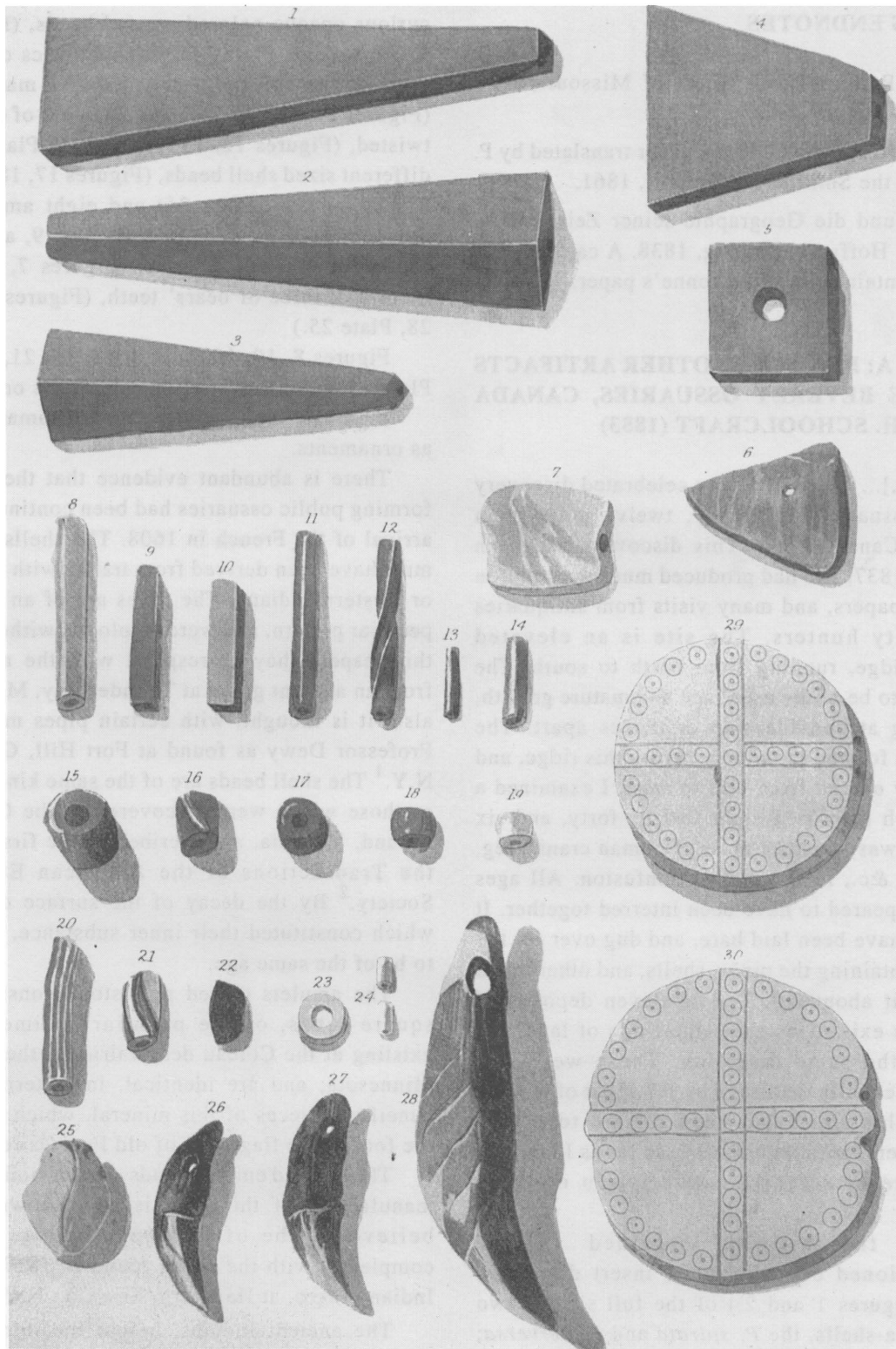


Figure 3. Schoolcraft Plate 25. "Amulets and beads" from Beverly: 1-6, 9, 11, catlinite beads; 7, 23, 25, shell beads; 8, 10, 12-22, 24, glass beads (8, 10, 13-15, light blue; 12, 18, Indian red; 16, dark blue with three spiral white-on-red stripes; 17, 22, dark blue; 19, grayish white; 20, light blue with fine white stripes; 21, white with three spiral white-on-red stripes; 24, white); 26-28, perforated bear teeth; and 29-30, shell runtees from another site. No. 8 is 3 cm long.

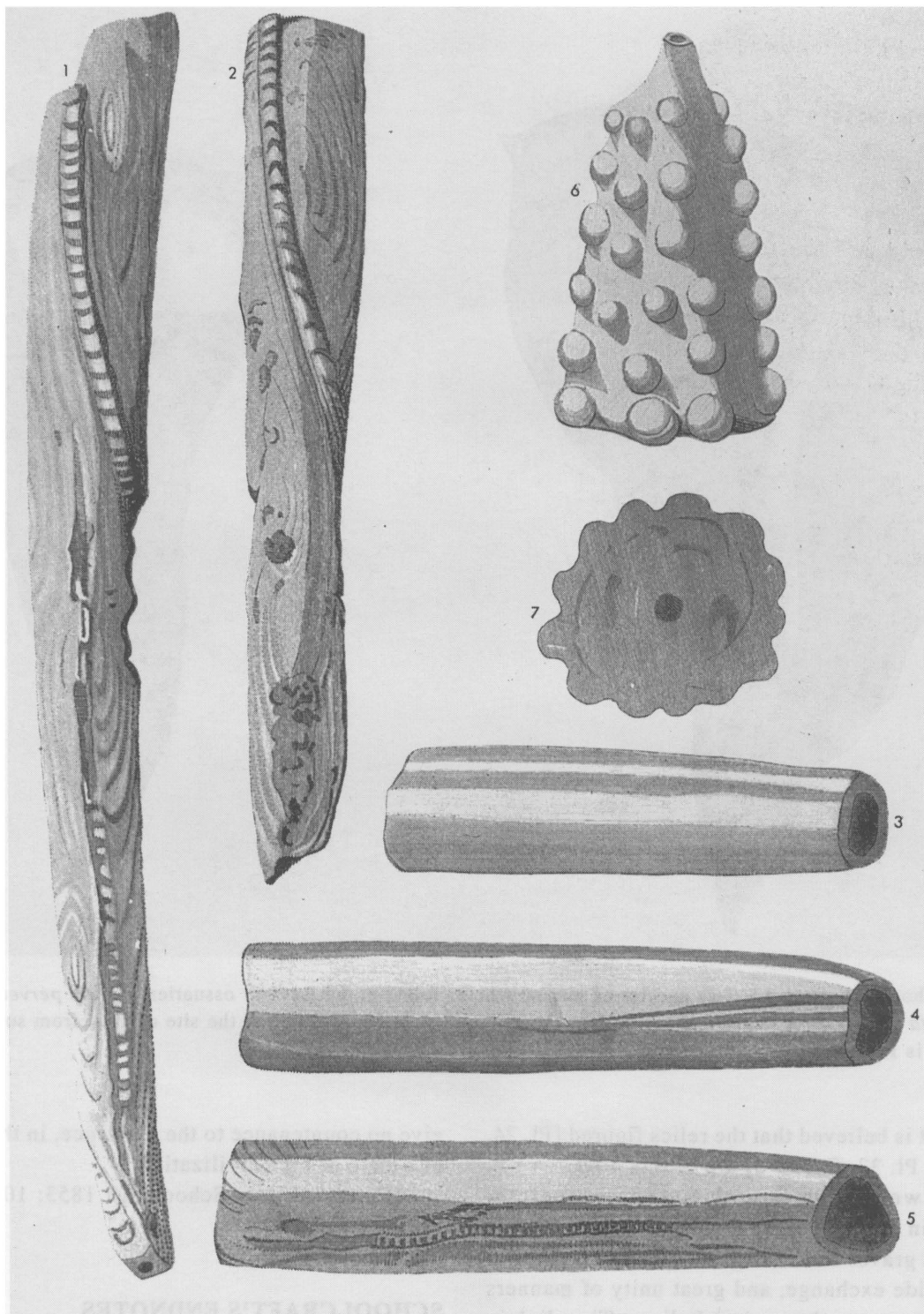


Figure 4. Schoolcraft Plate 33. Shell and bone artifacts from the Beverly ossuaries: 1-2, identified by Schoolcraft as possible walking-cane remnants, these are most likely the collumelae of marine whelks; 3-5, large bird-bone beads; and 6-7, pottery object from another site. No. 5 is 11 cm long.

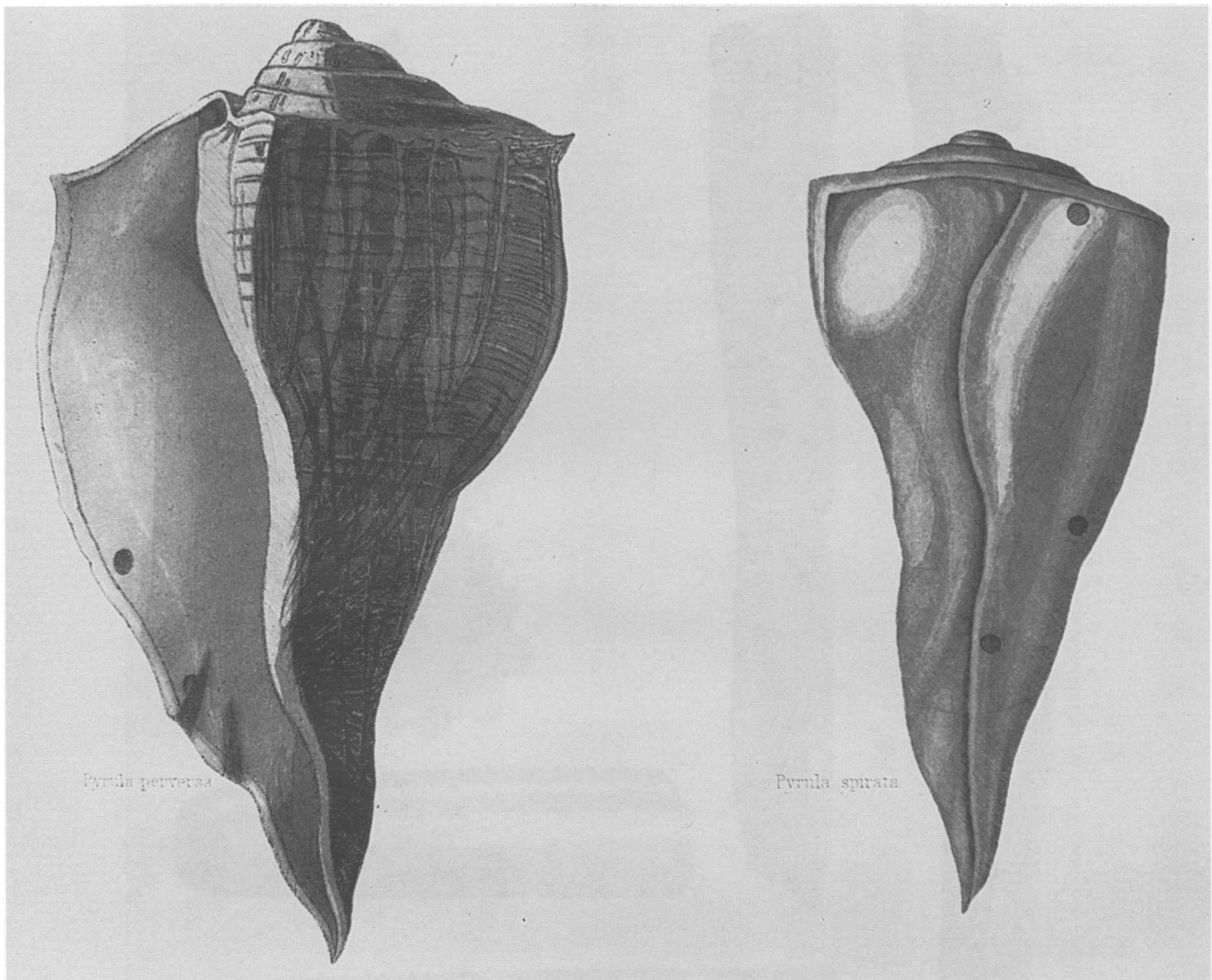


Figure 5. Shoolcraft Plate 35. Two species of marine whelks found at the Beverly ossuaries: *Pyruha perversa* (left) and *Pyruha spirata* (right). It is likely that the collumelae and collumela beads found at the site derived from such or similar shells. No. 1 is 15 cm long.

or leather. It is believed that the relics figured [Pl. 24, figs. 14-16; Pl. 33, figs. 3-5] are of this kind.

There were also found copper bracelets, analogous, in every respect, to those disclosed by the mounds and graves of the West. These relics denote a period of wide exchange, and great unity of manners and customs, among the ancient Indians. They link in unison the tribes of Canada, Western New York, the Mississippi Valley, and the Great Lakes. They indicate no art or degree of civilization superior to that possessed by the present race of Indians. They

give no countenance to the existence, in these regions of a state of high civilization.

[Extracted from Schoolcraft 1853: 103-5; Pl. 19, 24, 25, 33 and 35.]

SCHOOLCRAFT'S ENDNOTES

1. Notes on the Iroquois, p. 205, 2d Edition. E. Pease & Co., Albany, 1847.
2. New York, Bartlett & Welford, 1835.

3. Notes on the Iroquois, p. 237, 2d Edition. E. Pease & Co., Albany, 1847.
4. Second Part of Lead Mines of Missouri. N.Y. 1819

APPENDIX B: ANTIQUE GLASSES, DISCOVERED IN HAMBURGH, NIAGARA COUNTY, NEW-YORK, BY H. SCHOOLCRAFT (1819)

“An opinion is entertained by many well informed persons in the United States, that the country has, at some remote period, been inhabited by a civilized people, prior to its settlement or subjugation by the savages: and to the many evidences furnished to strengthen the opinion by the remains of fortifications, tumuli, &c. may be added the discovery of a number of pieces of glass, of singular workmanship, lately made in Hamburgh, Niagara County.

“I have been favoured with an opportunity to examine one of these glasses, and on the authority of my informant am enabled to remark, that they were taken up about two months ago from an ancient barrow in the town of Hamburgh, where they were found deposited in an earthen pot. Contiguous to this pot were also found a skull, and some other bones of the human frame, of an unusual size. This mound, or supposed repository of the dead, is situated in an uncultivated part of the town, and several trees were growing upon it at the time the excavation was made; some of which were judged to be upwards of two feet in diameter.

“The glass which I had an opportunity to examine, (and I am informed they are all alike,) is in the form of a large barrel-shaped bead; consisting of a tube of transparent green glass, covered with an opaque coarse red enamel. Its length 9 tenths of an inch; its greatest width 6 1-2 tenths of an inch; and the bore of the tube 2 tenths of an inch. Near the circle of the bore of this tube is an aperture of the size of a large needle, perforating the tube from one end to the other. The enamel which covers the tube of transparent glass, appears to have been ornamented with painting, in figures resembling a spindle, or two inverted sections of a circle; but they are now hardly perceptible, as the bead appears to have been considerably worn.

“But the circumstance most indicative of art in the making of this bead, is a species of enamelling which has been performed both on the external and internal surfaces of the tube, previous to its being covered by the coarse red enamel. This second enamel is white, and as the external surface of the tube was not smooth, but in parallel *strie* or veins, exhibits the appearance of a white vine between the green tube and the red enamel. This enamelling appears to me to have been done, not by melting on any vitreous composition, as is practised at the present day, but by the effect of calcination for some time in a low red heat. This, it is known, will deprive glass, especially *green* glass, of its transparency; and render the surface white to a certain depth.

“The composition of the tube of glass, I have judged to be simply a silicious sand and an alkali; probably with a small addition of lime or vegetable ashes. It is hard, and will not receive scratches like the lead glasses, and I conclude from this circumstance that there is no lead in the composition. Its colour seems also owing to the impurity of the materials employed, like the common window and bottle glass; and is probably caused by a minute portion of iron in the state of an *oxyd*, combined with the sand and alkali.

“The red enamel covering the tube, and the pot in which these glasses were found, seem to have been constructed of similar materials, as they differ very little in colour, texture, or other external character. Probably a very fusible brick clay, highly impregnated with the oxyd of iron, and pulverized fragments of green glass, are the principal ingredients of both. The earthen pot is manifestly constructed of different materials from those employed for brown pottery at the present period. It is a more imperishable substance, of a close texture, and vitreous appearance.

“I shall not presume to speculate in opinions which discoveries of this interesting nature are calculated to create; it may, however, here be added, that the fabrication of these glasses would suppose a perfection in the arts which none of the Indian tribes inhabiting this country at the period of its discovery, had arrived to. That if introduced by the French from Canada, in their earliest communications with the Indians inhabiting the western parts of this State, a sufficient time would hardly have elapsed for the growth of trees of such size as were found upon the

mound from which these relics were taken. And that if not introduced by the French at the period alluded to, we must refer their manufacture back to a very remote date, and one on which Indian tradition is wholly silent."

The above was originally printed in the *Utica Patriot* (Sept. 1817,) under a fictitious signature. Since visiting the western country, I have had occasion to notice a similar discovery on Big River, in the Territory of Missouri. On opening an Indian grave (or what is considered such) on the banks of this river, several beads of glass, of a similar nature, were found. They were accompanied by many bones of the human frame, of a most extraordinary size, and which indicated a stature eight feet in height. The person appeared to have been deformed, either by birth or through accident; the right jaw bone running in a straight line from the mouth back, while the left preserved the usual curve.

This excavation was made near the banks of the river, where the soil is a rich alluvion, and covered by a heavy growth of forest trees, such as are peculiar to the richest Ohio and Mississippi bottom lands.

[Extracted from Schoolcraft 1819: 280-3.]

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