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## Secrets of the Ohio Mound Builders

ARCHÆOLOGY

By EMMA REH STEVENSON

The greatest stone age artists the world has ever known once plied their trade in the green Ohio valleys long before the coming of the white man to America.

Unique in the history of mankind, these mound builders designed and sculptured so well that if they had been judged by art alone they would be placed much higher than in the stone age grade of civilization. This is the opinion of archæologists who have uncovered the scenes of their ancient culture.

The ancient mound builders sported million-dollar necklaces of genuine pearls and far outdressed their neighbors. They satisfied their love of display by wearing dazzling copper breastplates cut into intricate designs and studded with huge pearls. They dressed in finely woven materials of gayly colored patterns, trimmed in glittering appliques of mica.

"The mound building peoples belonged to the native American race, and the question of their origin is merely a part of the broader question of the origin of the American Indian," says Henry C. Shetrone, curator of archæology of the Ohio State Archæological and Historical Society, who has just returned from an exploration of the Hopewell mounds, one of the sites in southern Ohio where the great burial piles, or "pyramids," abound. "There is no evidence that the mound builders ever came into contact with the white man, but there is also no reason to believe that the building of mounds had ceased entirely when the Europeans appeared in that region," he adds. "It is quite possible that the great Iroquois conquest of very early colonial times may have hastened their extermination."

In the state of Ohio there were in prehistoric times three or more distinct types of mound building peoples. The most important of these



ARTIST'S CONCEPTION OF HOW A MOUND BUILDER might have looked, adorned in ornaments found in Ohio valley.

was the Hopewell group which flourished in the southern part of the state and left behind it a score or more great geometrical earthworks, and groups of mounds. Here, in a region now criss-crossed by railroad tracks and planted in corn, was the great social center of this mysterious and talented race, the relics of which have been recently brought to light.

Although the trimmings and trappings of the ancient Ohioans were in fine style and artistic beyond expectation, the tools and cooking utensils appear very much simpler and often crude in comparison. Fish hooks and harpoons identical with those used by the stone age people of Europe were used by certain of the prehistoric Indians in America. They also used the same sort of hammer stones, worn round by water in the brook.

One of the most striking discoveries made in years was the finding of enormous quantities of pearls in the graves and hiding places of these ancient peoples. What is now considered the finest prehistoric pearl necklace in existence has been recovered from one of the Hopewell mounds. The prize strand is thirty inches long and comprises more than 300 beads. The ancient Ohioans obtained these pearls from river clams and mussels which they used as food. Some of the necklaces are believed to date back perhaps to the beginning of the Christian era, and are marvelously preserved for their age. For all its years, one of the shorter strands of large pearls might easily pass for modern flapper "choker" beads.

The long prize strand is so beautiful that it could still be worn today. In fact, the Ohio State Archæological and Historical Society has been offered large sums of money for it. It is not for sale, however, says Dr. William C. Mills, director of the museum, but the person who

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would get it would have a unique and beautiful ornament to add to the family jewels. While it might be no rival to the Hope diamond, there would be nothing else like it in the world.

Another characteristic of the mound builders was their use of copper. Although they possessed small quantities of meteoric iron, some silver, and in one instance at least, gold, copper was their most important metal. They used large quantities of it in making breastplates, poker-shaped hair skewers, artificial noses, bracelets, rings, beads, ear ornaments shaped like large collar buttons, tools, and many other objects. They never learned to smelt copper nor temper it. The metal they used was native copper found in the form of nuggets which they hammered into shape. The hammering process hardened the metal and made it suitable for tools.

The largest prehistoric copper implement ever found in the world, as far as is known, is a 38-pound axe unearthed in one of the Hopewell mounds. It is too heavy and unwieldy for use as a tool and is thought to have been used for ceremonial purposes. The fact that these Indians used more of this malleable metal than other primitive people appear to have used might be explained by the fact that the copper resources of the United States are greater than those of any other country in the world.

A most peculiar use of copper among these Indians was in the making of artificial noses. A number of skeletons have been found in the burial mounds, upon which this feat of ancient plastic surgery had been performed. The Indians probably did not think the copper noses better than those that Nature supplied, but had learned from experience that the artificial one wore bet-

ter in the grave. Mr. Shetrone believes that the influential Indians in the community were outfitted at death with new noses to wear to Heaven.

Sacrificial knives, curved like a scimitar, and chipped from obsidian or volcanic glass, are among the numerous interesting objects recently found by the archæological survey of the Ohio State Museum at the great Seip mound, near Bainbridge, Ross county.

While authorities on the Ohio mounds have found no evidence to prove that their builders practiced human sacrifice, the close resemblance of these sacrificial knives to those known to have been used by the Aztecs and other highly cultured peoples of middle America in their sacrificial rites appears to indicate some sort of affinity between the two, or at least the survival with the mound builders of Ohio of a trait acquired somewhere far to the southward.

Human sacrifice was practiced rather extensively by the Aztecs and Mayas of Mexico and Central America and by the Incas of Peru, but the custom is not known to have prevailed within the United States proper, with the single exception of the Pawnee of the southwestern country. The Pawnee formerly practiced human sacrifice to the extent of sacrificing a young woman on the occasion of a yearly ritual of religious significance.

Certain curved knives, chipped from obsidian, are believed to have been used by the Aztecs and others in administering the "coup de grace" to their sacrificial victims, and perhaps for the purpose of ceremonially removing the heart. The close analogy of the ceremonial knives found in the Seip mound with those of the Aztec country may be significant of relationship between the two

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## Secrets of the Mound Builders

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or of a common origin of their cultures.

Other interesting objects found by the exploration party comprise a highly artistic specimen representing a wild duck, with the head resting on the shoulders and back; implements of meteoric iron and copper; beads fashioned from bear claws and teeth; pearl and shell beads; and a dagger-like object of copper with an antler handle.

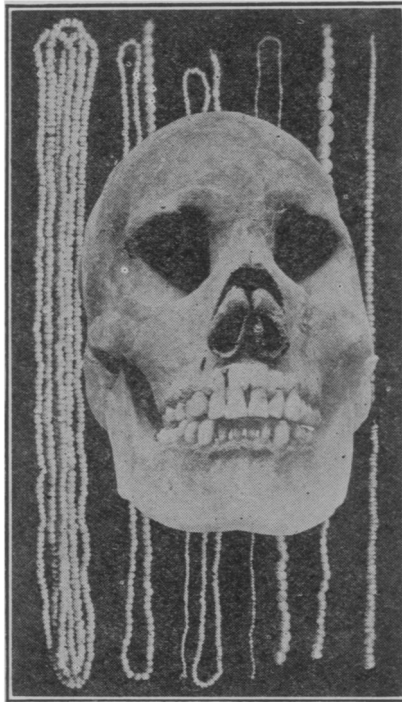
But for the use of copper, the prehistoric Indian might never have gained credit for another one of his noteworthy accomplishments. Under the dazzling copper breastplates, turned green and blue in the grave, pieces of cloth have been kept from decay for centuries by the preservative action of chemicals formed by the decomposing metal. Ancient Ohio drygoods stores must have contained at least four varieties of cloth, judging from the samples thus saved.

There was a plain cloth almost exactly like the home-spun linen of early pioneer days, and another type woven in colored patterns, of which samples remained. So far as is known no other race at the stage of civilization attained by the Ohio Indians ever produced a woven material in colored designs, Mr. Shetron says.

A third type of goods was made from the bark of trees and shrubs, and a still coarser kind was woven from flat splints. All of these materials showed selvage edges like modern goods. The use of cotton and wool was unknown to the Indians and the fibers used came from grasses and weeds, it is believed. Botanists at the Ohio State University are now at work trying to identify the fibers used by the ancient weavers.

Small combs of precious marine tortoise shell, almost identical with the pocket comb in a modern girl's handbag, have been unearthed with one of the skeletons. Copper combs have been found.

The ancient Indians when dressed for "going out" or for ceremonial purposes were probably splendid creatures, judging from their ornaments and trappings. Teeth of the bear, wolf, elk, mountain lion and deer were perforated and used as beads, sometimes simply polished and at other times set with precious pearls, or carved in beautiful designs. Like the stone age dwellers of Eu-



*PEARL NECKLACES taken from the Hopewell mounds and a skull showing the copper nose with which mound builders were equipped for their burial*

rope, the American Indians also used tiny sea and fresh water shells for beads. One of the unique kinds of decorations used by the Indians, however, were designs of shimmering mica beautifully cut out. These are believed to have been used on their clothing, as breast plates or headdresses.

The art for which the mound builders are famous is best shown in many carved stone ceremonial pipes, amulets, charms and totems, found in the earthworks and buried along with the chiefs of the tribes. These stone objects carved in the round are probably the most perfect representations of animal and human figures ever found in primitive art, and the many flat designs from copper sheet and mica strips cut in conventionalized figures of familiar objects are the most sophisticated and symmetrical of their kind.

From a physical aspect alone, the most impressive structure of the Ohio valley mound builders is the famous serpent mound. If stretched out, the figure would be almost a quarter of a mile long.

The serpent figure was built to coil on the edge of a cliff which curves around the bend of a creek. The head, over forty-six feet long, is built in outline some three feet high, and rests upon a bare rock platform.

It is believed that an altar of some

kind was built in the center of the head, and was a place of worship for the mound builders.

Structures of the Ohio Indians in no way can compare with the pyramids of Egypt, but they are impressive, and a preacher who one time declared in a burst of rapture that this serpent mound proved that the Garden of Eden had been in the Ohio valley may therefore be pardoned.

In all, there are perhaps 10,000 of these mounds. Many of them are small and inconsequential, but many have never been explored. When it is considered that one of the burial mounds yielded searchers some two pecks of pearls—60,000 separate gems—it can be seen that exploration of these tombs is far from fruitless.

What the physical environments were that singled out one group of people on earth and fostered that unique talent is a question archaeologists would like to answer. The work on the Hopewell mounds is still far from complete. Although the excavations made to date have revealed unexpected riches and have enabled scientists to learn some of the secrets of Indian life before the dawn of history, the excavations planned for the coming year are expected to surpass those of the past. The story of a vanished civilization may thus be reconstructed.

Science News-Letter, November 19, 1927

### ENTOMOLOGY

#### Anathema

There's something mean about a moth!

He poses as a butterfly,  
And all his life's a horrid lie  
Cut, if you get me, from whole cloth.

Mosquitoes play a forthright game;  
They put you wise before they bite!  
And many insects I might name  
Do all their dark deeds in the light.  
But oh, the moth! No other bug  
Has his unholy appetite;  
He lunches on your choicest rug  
As soon as you are out of sight!

Assuredly it makes me wroth  
To meet at every turn a-wing  
My best golf knickers—new last  
Spring!  
There's something mean about a  
moth!

—Edward W. Bernard,  
In the New York Times.

Science News-Letter, November 19, 1927

Smoke columns were used for signaling by the ancient Chinese.