The PALIMPSEST

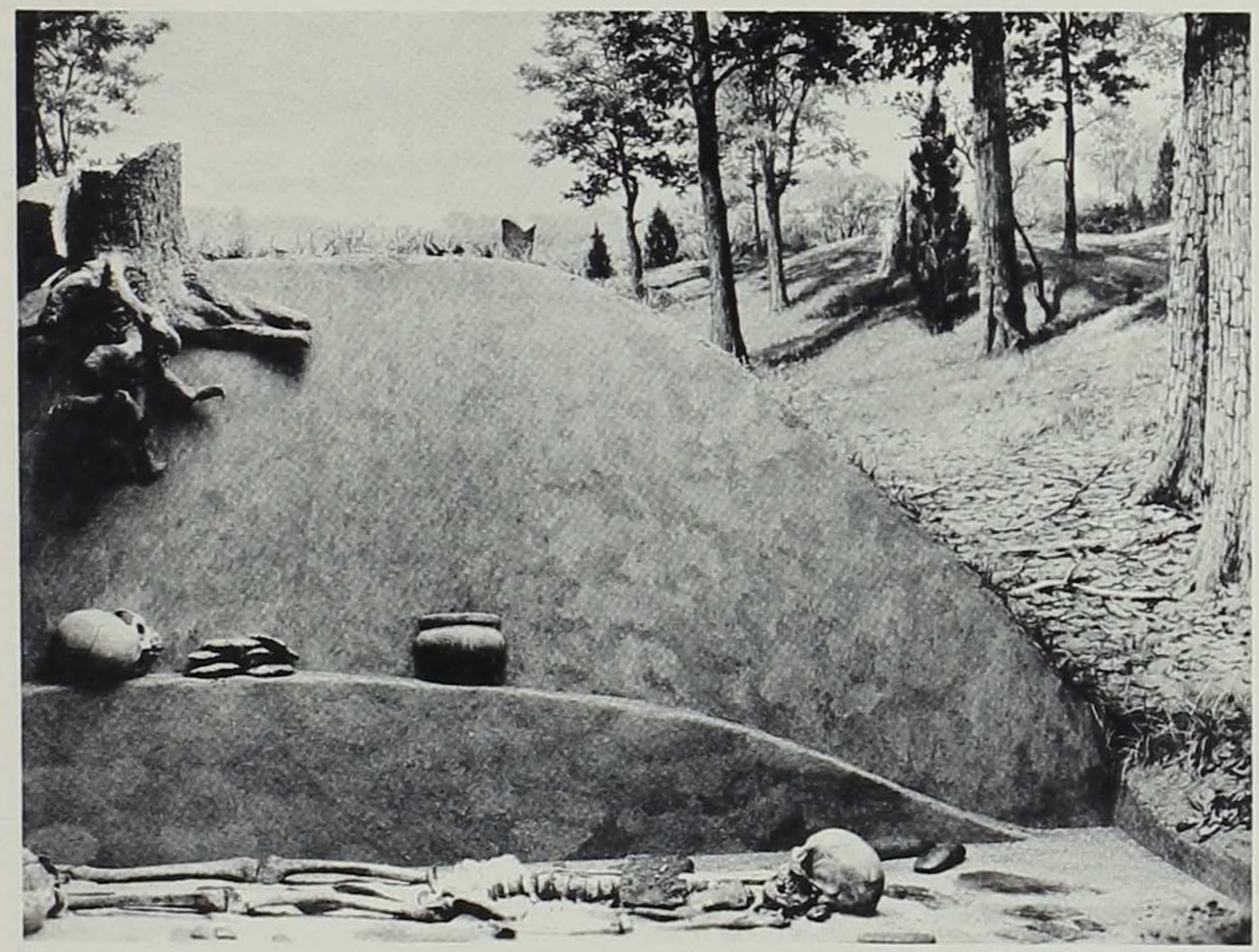

Photo courtesy Field Museum of Natural History

Diorama showing section of Midwestern Hopewellian burial mound.

Hopewell: Burial Mound Builders

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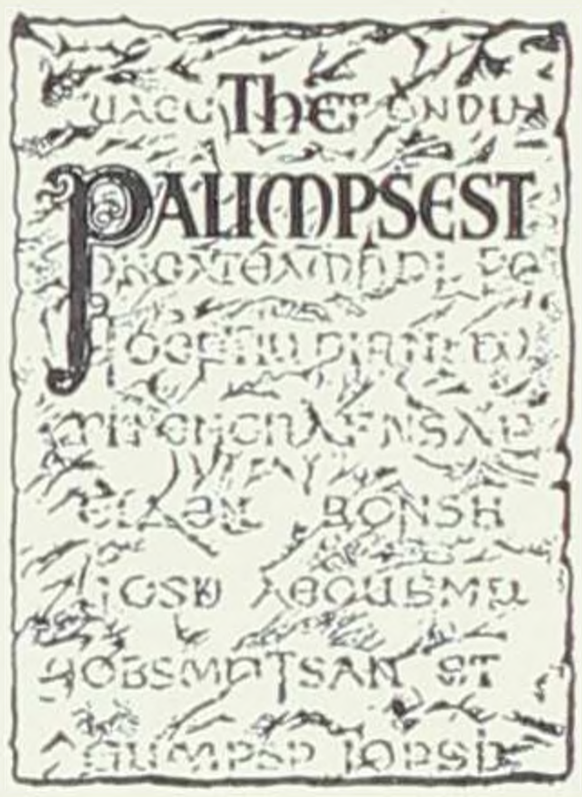

The Meaning of Palimpsest

In early times a palimpsest was a parchment or other material from which one or more writings had been erased to give room for later records. But the erasures were not always complete; and so it became the fascinating task of scholars not only to translate the later records but also to reconstruct the original writings by deciphering the dim fragments of letters partly erased and partly covered by subsequent texts.

The history of Iowa may be likened to a palimpsest which holds the record of successive generations. To decipher these records of the past, reconstruct them, and tell the stories which they contain is the task of those who write history.

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Illustrations

All illustrations, unless otherwise noted, are from the Davenport Public Museum in Davenport, Iowa.

Author

Elaine Bluhm Herold wrote her Master's thesis on the Hopewell Indian Culture of Illinois. In 1957 she received her Ph.D. degree in anthropology at the University of Chicago. Since then she has specialized in Midwestern archeology; has served as secretary-treasurer of the Illinois Archeological Survey; and edited its *Bulletin* for the first five years. Dr. Herold has moved to Florida with her husband, where he is director of the Daytona Beach Museum of Arts and Sciences.

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THE PALIMPSEST

EDITED BY WILLIAM J. PETERSEN

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Who Were the Mound Builders?

In the latter part of the Eighteenth Century and the early Nineteenth Century travelers and settlers moving westward across the eastern part of the United States noted the mounds and earthworks which they found along the river valleys. Because the living Indians knew nothing about these monuments of the past, a myth became well established in the Nineteenth Century that the earthworks were built by *Mound Builders* — a mysterious race which was often regarded as descended from the Ten Lost Tribes of Israel or refugees from the Lost Continent of Atlantis. The Mound Builders were believed to be far superior to the Indians. It was thought that they disappeared before the Indians, first encountered by the early explorers and colonists, arrived in this hemisphere.

A number of the mounds and earthworks were destroyed in the Nineteenth Century as cities began to grow and agricultural activities expanded across the continent. Fortunately, some of the men

who found the mounds were very careful observers who mapped and recorded their findings in great detail.

In the latter half of the Nineteenth Century the interest in the past history of North America increased. More and more of the mounds were discovered, recorded, and in many cases destroyed. The Smithsonian Institution, founded in 1846, began an active program of collecting and publishing records of these earthworks. Information was sent to Washington by people in many parts of the country. Sections of several of the early volumes of the Smithsonian Annual Reports were devoted to their accounts.

The myth of the Mound Builders gradually came to be disproved as studies of the writings of early explorers revealed that Indians had been building mounds in the Sixteenth and early Seventeenth centuries. Excavation and studies by archaeologists and physical anthropologists showed that the Indians and their predecessors were physically similar.

But it was not until the early part of the Twentieth Century, when there was an intensified interest in controlled and scientific archaeology, that we really began to know something about the Indians who built the mounds. By then it was established that there were different types of mounds. Some were constructed as monuments to the dead, with skeletons placed in them; others

were platforms for ceremonial structures, and still others were effigies of animals and serpents. The real break-through in the understanding came about in the 1940's and 1950's when, with the development of Carbon-14 dating, some accurate information on the age of the mounds was at last available. It then became apparent that mound building had been practiced for over 2,500 years on the continent by many groups of prehistoric Indians whose only records are the remains left behind buried in the ground. Generally speaking the burial mound builders were earlier and the temple mound builders, those who built mounds as platforms, and effigy mound builders were later in Midwestern prehistory. In time the term "Mound Builders" almost disappeared from scientific writing as it had no real meaning in terms of the prehistory of the country.

Hopewell: Burial Mound Builders

The best known of the prehistoric burial mound building Indian cultures in the eastern United States is the Hopewellian culture which occurred during what archaeologists in the Midwest call the Middle Woodland period (about 200 B.C.—400 A.D.). Archaeological sites in which Hopewellian artifacts are found occur as far east as New York State, as far west as Kansas City, and from Florida on the south to New York and Wisconsin on the north. The Hopewellian culture was named originally for the Hopewell farm in Ross County near Chillicothe, Ohio. For many years the best and most detailed information on the Hopewellian culture came from Ohio, for a number of sites were excavated there in the late 1800's and first quarter of this century. Most of the work, however, was conducted in the mounds and earthworks, a number of which have been preserved and can be seen even today in parks and National Monuments in the vicinity of Chillicothe and at Newark. Almost nothing was known of the domestic life of these people.

During this same time many smaller and less impressive mounds were excavated in Illinois and Iowa. Fortunately some were studied by careful

observers and there are records of the Davenport Academy of Natural Sciences excavations now on file at the Davenport Public Museum. Many other sites were simply destroyed by untrained curio-seekers.

In the 1920's and 1930's Dr. Fay-Cooper Cole of the Department of Anthropology of the University of Chicago began a systematic survey of the archaeological sites in Illinois and under his direction students dug a number of Hopewellian village sites. As a result of this work, and that of his associates, archaeologists came to know more about the domestic life of the Hopewellian Indians in Illinois than elsewhere in the country. It began to appear that while the most elaborate development of burial practices was achieved in Ohio, the longest development and the earliest village sites were found in Illinois. Fortunately, in the last fifteen years much more research in mounds and village sites has been conducted in eastern United States and more information is available on all aspects of the Hopewellian complex.

The archaeological evidence of the Hopewellian culture, which was spread across the eastern United States during the Middle Woodland period from, perhaps, 200 B.C. to 400 A.D., indicates that it was in many ways more of a *cult* than a *culture*. The details of the local indigenous village complexes, which reflect the daily life and customs of the local Indian groups, vary from area

to area, but there is a general similarity in ceremonial paraphernalia and to some extent burial practices. It might be compared to the spread of Christianity in the New World in the Sixteenth and Seventeenth centuries when much of the local Indian way of life did not change radically although the Indians adopted the new religion, often built churches, and acquired many of the religious symbols that went with it.

The origin of the Hopewellian cult is far from being fully understood by archaeologists. Some of the ideas incorporated in it may very well have come from south of our border in Meso-America. Others may have come from Asia and others were probably the result of the blending of the new and the older indigenous cultures in the area. It is easy to show that the cultivation of maize, the use of mounds for burials, figurines, rocker-stamped designs on ceramics and parallel-sided knife blades occur earlier in Meso-America than in the eastern United States. But it is impossible, at this stage in archaeological research, to plot the route or routes of movement of such traits through the area. Some appear to occur earlier in Illinois while others are earlier in the Southeast. Furthermore rocker-stamping and parallel-sided blades also occur at an earlier date in Asia.

If the origin of the Hopewellian cult is imperfectly understood, what happened to it is also. We know that it died out, that the burial cult and

the ceremonial paraphernalia eventually no longer were found in the eastern United States, and subsequently other cultures took its place. James B. Griffin (1960) has suggested that a minor variation in climate, producing cooler weather and a shorter growing season, was responsible for the decline in agricultural productivity and, as a result, of the Middle Woodland culture.

Olaf Prufer (1964) believes that this may explain the more gradual decline in the northern Mississippi Valley and perhaps in Illinois, but he feels that in Ohio the end was more abrupt. He suggests that the latest sites are those located on fortified hilltops and that the Hopewellians were forced to move into the fortified locations for as yet unidentified reasons and then, following an upheaval, were dispersed.

It is also possible that, as Griffin suggested earlier (1952), the burden of supporting the elaborate ceremonial activities became too great for the population and the cult and the communities broke up as a result of "cultural fatigue."

These two big questions of how Hopewell came about and what happened to it and many other questions of inter- and intra-village and area relationships will be answered only when more controlled research is done in archaeological sites throughout the eastern United States. Until the work can be done we can only hope that the sites can be protected and preserved.

Middle Woodland Indian Life

If a visitor from the Old World had traveled across the Midwest about the year 1 A.D., he probably would not have been impressed by the villages he saw, but he might well have described the earthworks and the ceremonial paraphernalia and ritual with much enthusiasm. The Middle Woodland Indians were excellent craftsmen, producing some of the most beautiful implements, pipes, figurines and ornaments found in the New World.

The Indians lived in small villages scattered here and there along the minor streams and rivers. In Illinois the villages were often on the flood plain, while the mounds were grouped above them on the bluff. The villages were perhaps one to three acres in area and contained possibly five to fifteen houses.

Three kinds of houses have been reported from sites in Illinois. Long oval houses were found under two mounds in Fulton (Cole and Thorne Deuel 1937: figs. 31, 32) and Mason (John C. McGregor in Deuel 1952: pl. XVI) counties. In Pike County in central Illinois a circular house some 40 feet in diameter was uncovered. The walls of the house were supported by posts which

had been set in the ground and wedged with stones. Inside the house was a central firepit and a number of storage and/or refuse pits (McGregor 1958). In northern Illinois near Rock Island and in Wisconsin (Freeman 1969) smaller oval houses averaging about fifteen feet in length have been excavated. These houses had interior refuse pits and some had firepits as well. Walls of these structures were also supported by posts set in the ground. There is no direct evidence of the superstructure of any of the houses, but presumably they were covered with some type of matting or bark, or perhaps wattle and daub.

The people supported themselves by gardening or farming—raising such cultivated plants as corn, beans and squash, and perhaps varieties of wild plants such as pig weed. Charred remains of food plants have been recovered from archaeological sites as well as hoes of large mussel shells and chert which were used in tilling the soil. The women probably did much of the caring for the gardens and also collected wild nuts, fruits, berries and roots in season to augment the cultivated food supply.

The men hunted for deer, smaller game, ducks, geese, swans and turkeys. The abundance of animal bone in the middens provides evidence of the kinds of animals and birds which were hunted and the importance of deer in the diet. The projectile points of chert (impure flint-like rock),

bone or antler, and the spear and spear-thrower, or *atlatl,* appear to have been the weapons. We know that fish and shellfish also were important dietary items. Fishhooks of bone have been found at some sites and the Indians probably also used spears and traps as well.

It is quite possible that the population of the village varied from season to season. The Middle Woodland Indians, like their later historic counterparts in the Midwest, may have gathered in spring to prepare fields and plant crops and participate in some kind of spring planting ceremonies. In summer the able-bodied men and women may have gone on hunting expeditions from time to time while the young and elderly remained behind to watch and care for the crops. There may have been times when much of the village camped along the stream or river and collected mussels, throwing the shells down and slowly contributing to the formation which archaeologists would one day describe as a shell midden.

Undoubtedly in the fall, at harvest time, there was another gathering of the group in the village. Certainly there would have been some singing, dancing, and thanksgiving, along with the work of harvesting the crops. The squash had to be cut and dried and the corn shelled and stored for food during the winter months ahead. Some corn and squash seeds had to be saved for seed for the following spring. The Indians were aware of the

need for selection of the best seed and in time improved the crops they were growing.

In winter the village may have been abandoned or occupied by only a few of the old and infirm, the remainder going off to hunt in order to support themselves until the next spring. On these seasonal movements away from the village to hunt and fish and collect, the group may very well have occupied the same locations several years in succession thereby creating the accumulations of refuse which archaeologists today identify as campsites.

Each Middle Woodland community had to be quite self-sufficient. Not only did the inhabitants produce their own food supplies, but they also made their own tools and utensils. The men were good flint-knappers and stone-carvers. The many well-made projectile points and knives, scrapers and parallel-sided blades of local and imported chert testify to that. From selected river pebbles they shaped stone celts and axes.

The stone objects which evoke the most enthusiastic comments by people today are those which we classify as ceremonial—well-made knives and blades which were chipped from obsidian and beautiful platform pipes which were fashioned from Ohio pipestone and other fine-grained stone. These pipes with straight or curved bases had plain bowls or bowls carved to represent native birds, animals and rarely human

forms. Sometimes the eyes of the birds or animals were set with river pearls or copper. In most cases only the bowl of the pipe is carved but an unusual specimen is shown (Fig. 1) which represents a duck sitting on the back of a fish. Most of the pipes and rings and earspools are found in the mounds with the burials and cremations. The largest quantity of these artifacts have been found in Ohio but they do occur in sites in other states.

We may guess that the men also produced the sophisticated geometric ornaments cut from sheets of mica (Fig. 2). In their book, *Indians Before Columbus,* Martin, Quimby, and Collier, have said that the Hopewellian Indians in Ohio were the finest metal workers in North America before the coming of Columbus. The metal ornaments and tools were made by beating and annealing copper. Very rarely were ornaments made of meteoric iron or silver. Most of the metal was utilized for ceremonial objects—headdresses (Fig. 3), breast-plates, bracelets, beads and earspools. Utilitarian objects included awls, celts and chisels of copper.

There were also implements and ornaments of wood. Because of the nature of the material only a few charred fragments have been preserved, but they provide some indication of the skill of the wood-carvers. The quantity of woodworking tools—adzes, axes, celts, chisels, drills and knives also indicate the importance of the craft.

We assume that the women were the potters as

they were in historic communities. The locally produced utilitarian ceramics were usually rather plain and varied from area to area. Some had smooth surfaces, others were cordmarked and others had what resembled fabric impressions. Most utilitarian pottery developed out of the Woodland which preceded Hopewell in the area.

The local utilitarian pottery in the Illinois River Valley is called Havana Ware by archaeologists. In terms of its construction, it also seems to have developed out of the earlier local Woodland ceramics. The pottery is decorated with stamped designs, rouletted lines and areas of geometric patterning. These design techniques may have been the forerunners of what seems to be regarded as typical of the Hopewellian ceremonial ware.

The ceremonial ceramics, known as Hopewell Ware, are found throughout the eastern United States, and have a greater similarity in design motif and appearance than the utilitarian. Many are low jars or bowls with rounded or flattened bottoms. They have cross-hatched bands along the rims and are decorated with smooth areas and areas of rocker or dentate stamping. Some designs are geometric but the stylized bird-serpent motif (Fig. 4) is the hallmark of the Hopewellian cult.

The women probably also did the weaving and manufactured the clothing. Examples of plain woven, looped, and twined textiles have been

found. Often they are preserved because they have been wrapped around or placed near copper objects. Some of the plain weaving may have been done on simple looms or frames, although there is no direct evidence of this. Occasional pieces of fabric were decorated with painted designs. In addition to weaving, the women may have tanned the skins to make clothing, robes and moccasins.

A number of clay figurines have been recovered from Hopewellian mounds in Illinois and Ohio. Both men and women are modeled in a realistic manner and often they are painted to show details of dress and body ornamentation. Some depict people in every-day attitudes, while others show individuals in more ritualistic activities. Those illustrated (Fig. 5) came from the Knight Mounds in Calhoun County, Illinois. One shows a mother nursing a child, another has a child on her back. The third female has her hands in front of her, and the one male is holding a spear-thrower or atlatl.

From the figurines and the burials we get a picture of the dress of the Indians. Women wore wrap-around skirts of red or black. Their hair was parted in the center and pulled back into a knot on the back of the head or put into a long braid or twist and allowed to fall down the back or over the shoulder. Ears were exposed and often decorated with earspools. They wore sandals or moccasins on their feet. When dressed for special

occasions they wore necklaces of beads, arm bands and beaded ornamentation on skirts and sandals.

The men wore breech cloths and moccasins. They had their hair pulled into a knot above the middle of the forehead or most of the head was shaved leaving a ridge of hair down the crest of the head. Men also wore necklaces of shells or bear teeth and earspools. Ceremonial paraphernalia included antler headdresses, cut human and animal jaws, and copper breastplates.

Although many Middle Woodland villages were small and probably self-sufficient as far as their daily economic activities were concerned, they were not completely independent and isolated. There was a widespread trade network which brought in raw materials from great distances and saw the dispersal of goods throughout the area. Obsidian was imported from the Rocky Mountains to the west, marine shells and sharks teeth came from the Gulf of Mexico and the southern Atlantic coast. Copper from Upper Michigan was traded to the south. Mica from the Appalachian Mountains in the south moved north and west. How these goods were transported is not known. Perhaps they were moved from village to village, or they may have been spread by a special group who did little but trade and spread the ideas of the Hopewellian ceremonial cult. Actual finished items of the ceremonial cult like the pipes, copper celts and ornaments, and some

of the pottery, may have been traded as well as the raw materials.

Another facet of the Middle Woodland Indian life which must have required the cooperation of a number of people was the building of the large mounds and earthworks. In Ohio there were large geometric enclosures consisting of rectangular, round or octagonal areas enclosed by walls with openings or "gateways." In some cases the enclosures were connected by walled passageways. Some were several hundred feet across and the area included varied from a few acres to over one hundred. The largest, according to Prufer, covered four square miles at Newark. Those located on hilltops have been designated as "forts." Others were located in valleys. Most of them were built for ceremonial reasons. Burial mounds are often located inside of the enclosures.

The burial mounds ranged in size from small subconical mounds thirty or more feet in diameter to large elongated mounds. Apparently in Ohio the Indians first built rounded or elongated structures with walls supported by posts. Some were roofed, others were not; the larger ones were divided into sections which may have been covered. The floors were covered with sand.

In some of these structures individual bodies, dressed in finest clothing and jewelry, were placed on their backs on rectangular platforms on the floor around which a log tomb was constructed.

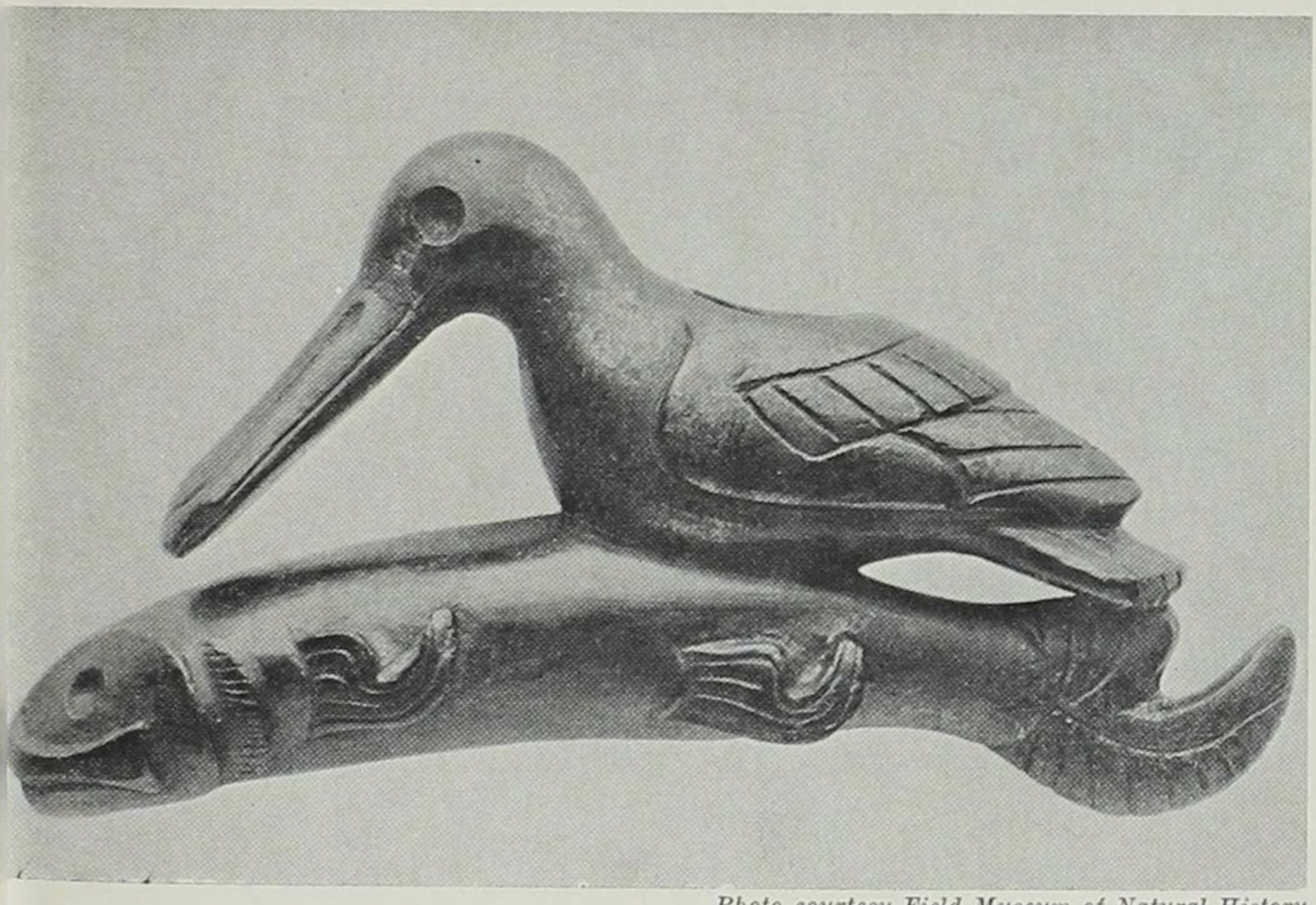
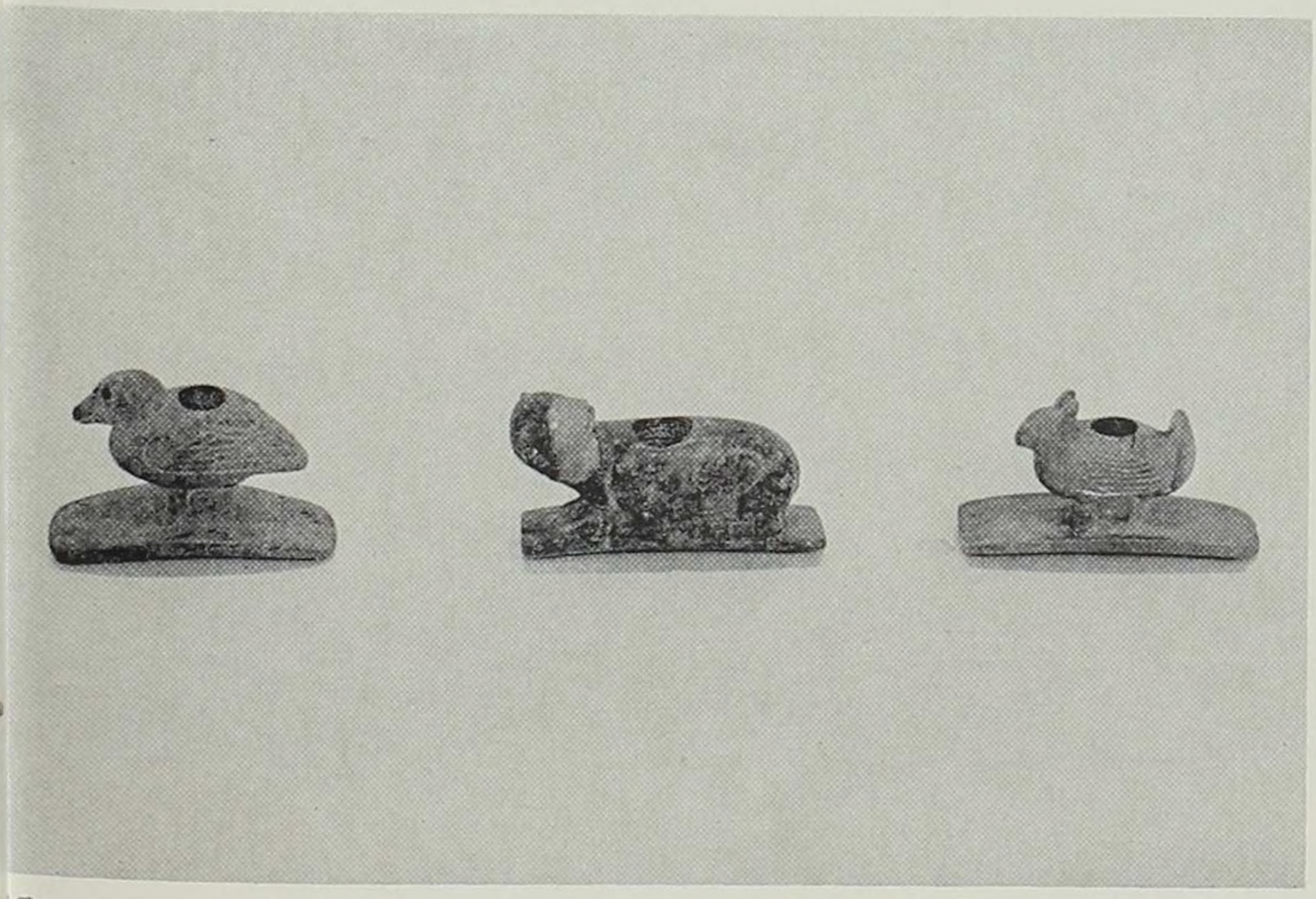


Photo courtesy Field Museum of Natural History

Figure 1

Effigy pipe representing a duck on the back of a fish from Hopewellian mounds in Ohio.



ffigy pipes of stone were found in the Cook Farm and Toolesboro Mounds. Effigy pipes were ot as abundant in Iowa as in Ohio. Pictured are, left to right: Wood Duck, Lynx, and Prairie hicken.

Photo courtesy Field Museum of Natural History

Figure 2

Ornaments cut from mica taken from Hopewellian mounds in Ohio. (Left to right, top row): human hand, bird talon, bear tooth; (bottom row): bird claw, headless human.

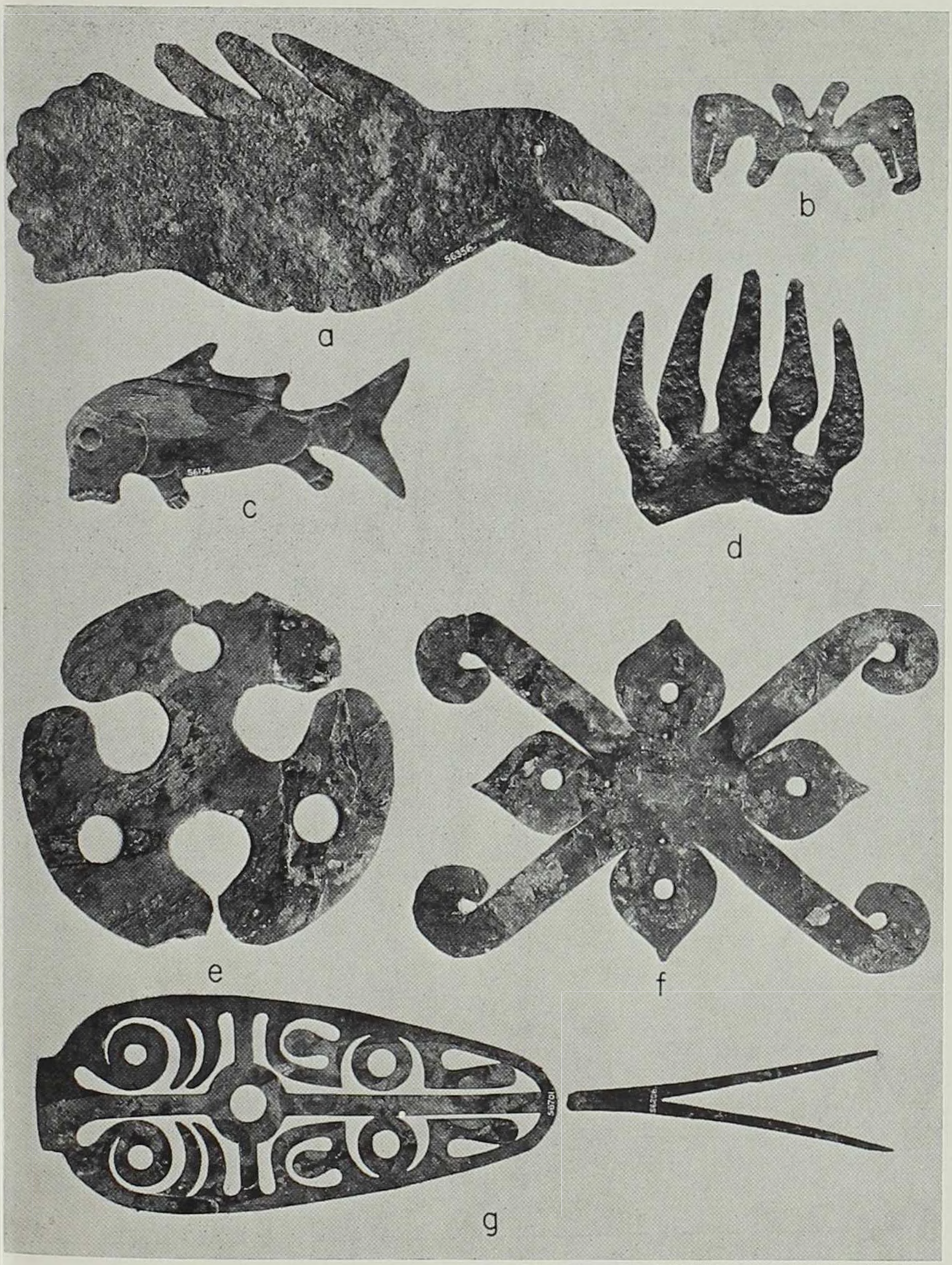


Photo courtesy Field Museum of Natural History

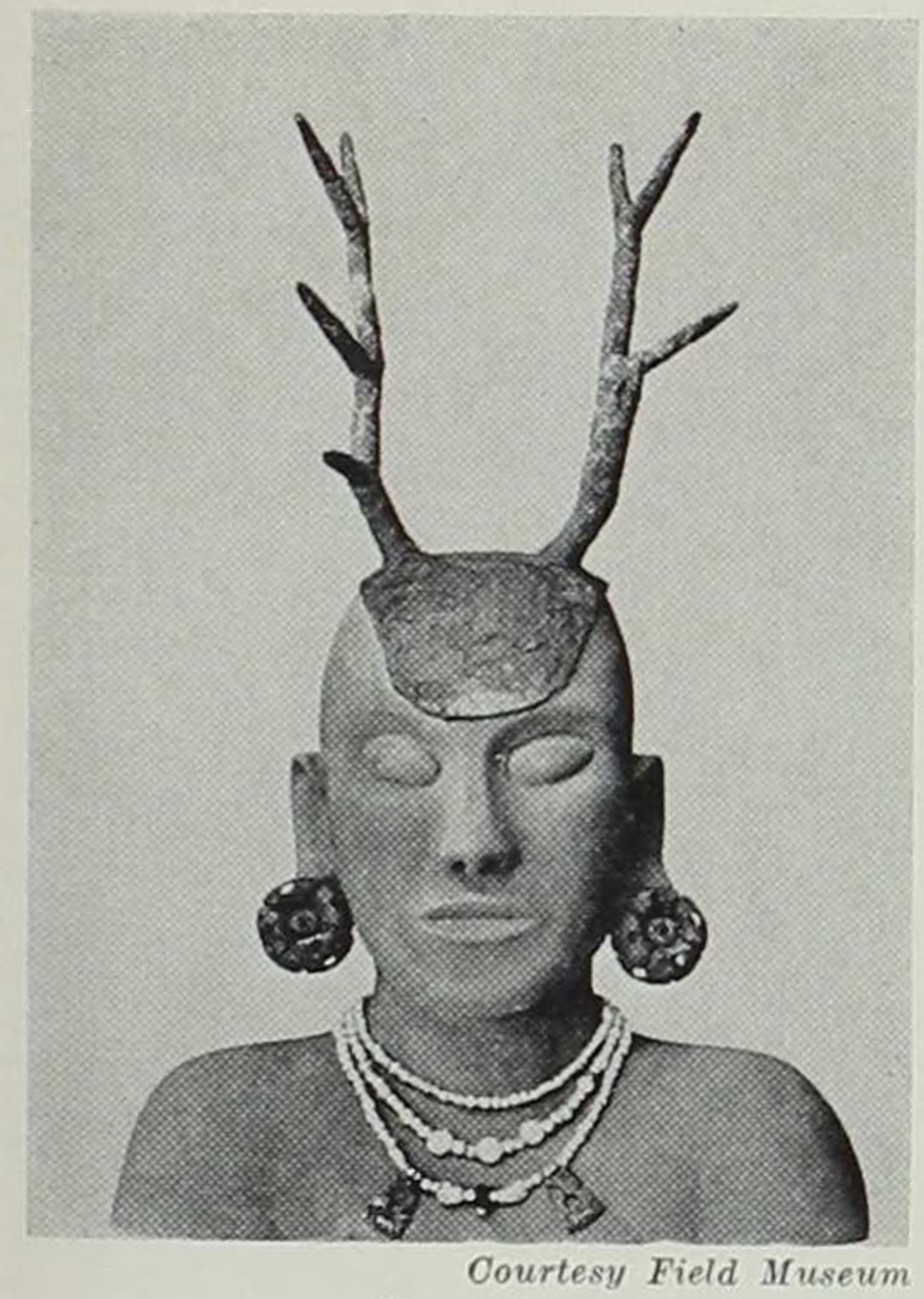
Figure 4

Ornaments of sheet copper taken from Hopewellian mounds in Ohio. (Left to right): a. bird with pearl eye; b. double eagle; c. fish; d. bear claw; e., f. ornaments once attached to robes; g. ornament, probably representing the head of a serpent. The stylized bird-serpent motif is the hallmark of the Hopewellian cult.

Figure 5

Photo courtesy Illinois State Museum

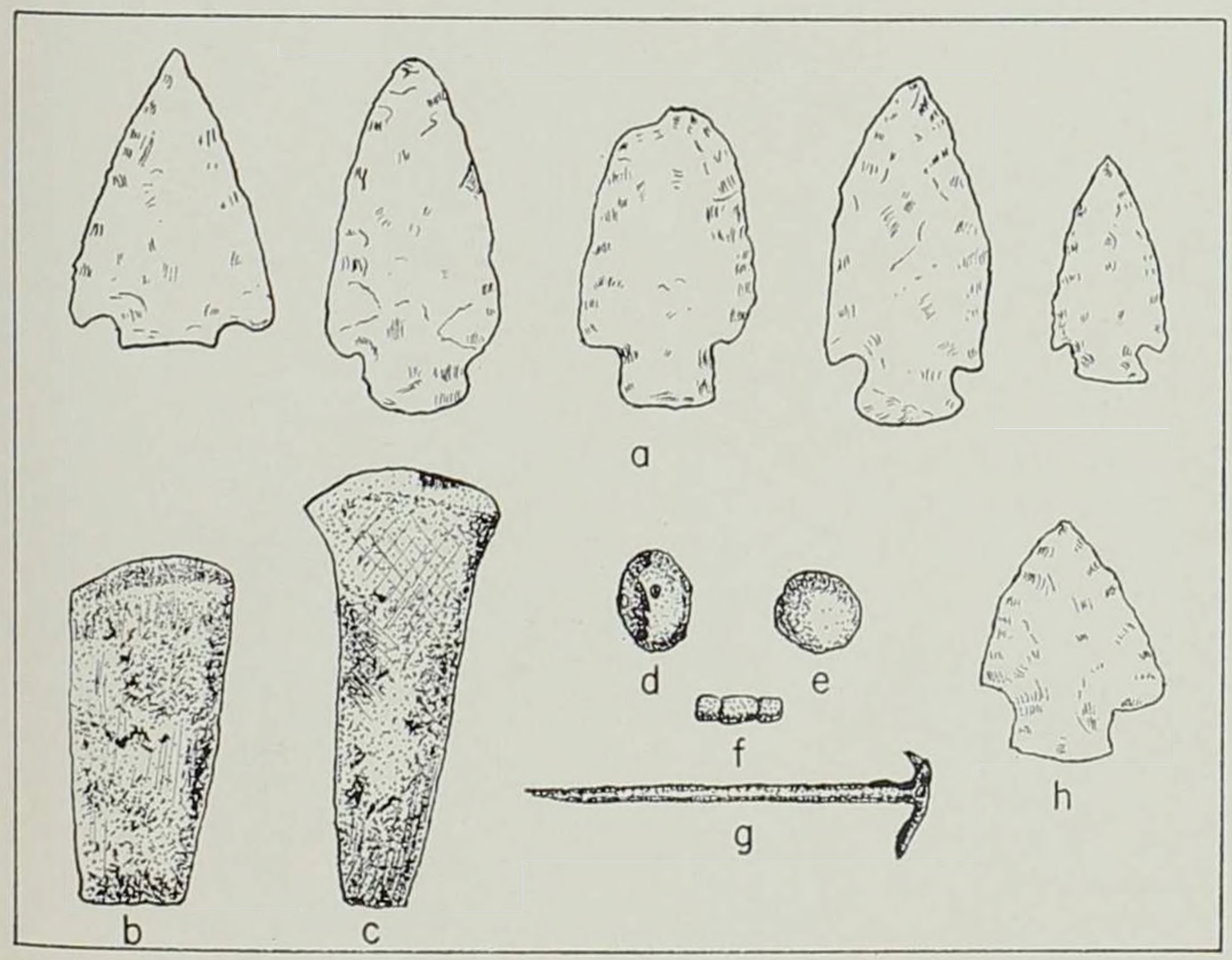
These clay figurines came from the Knight Mound in Calhoun County, Illinois



Courtesy Field Museum

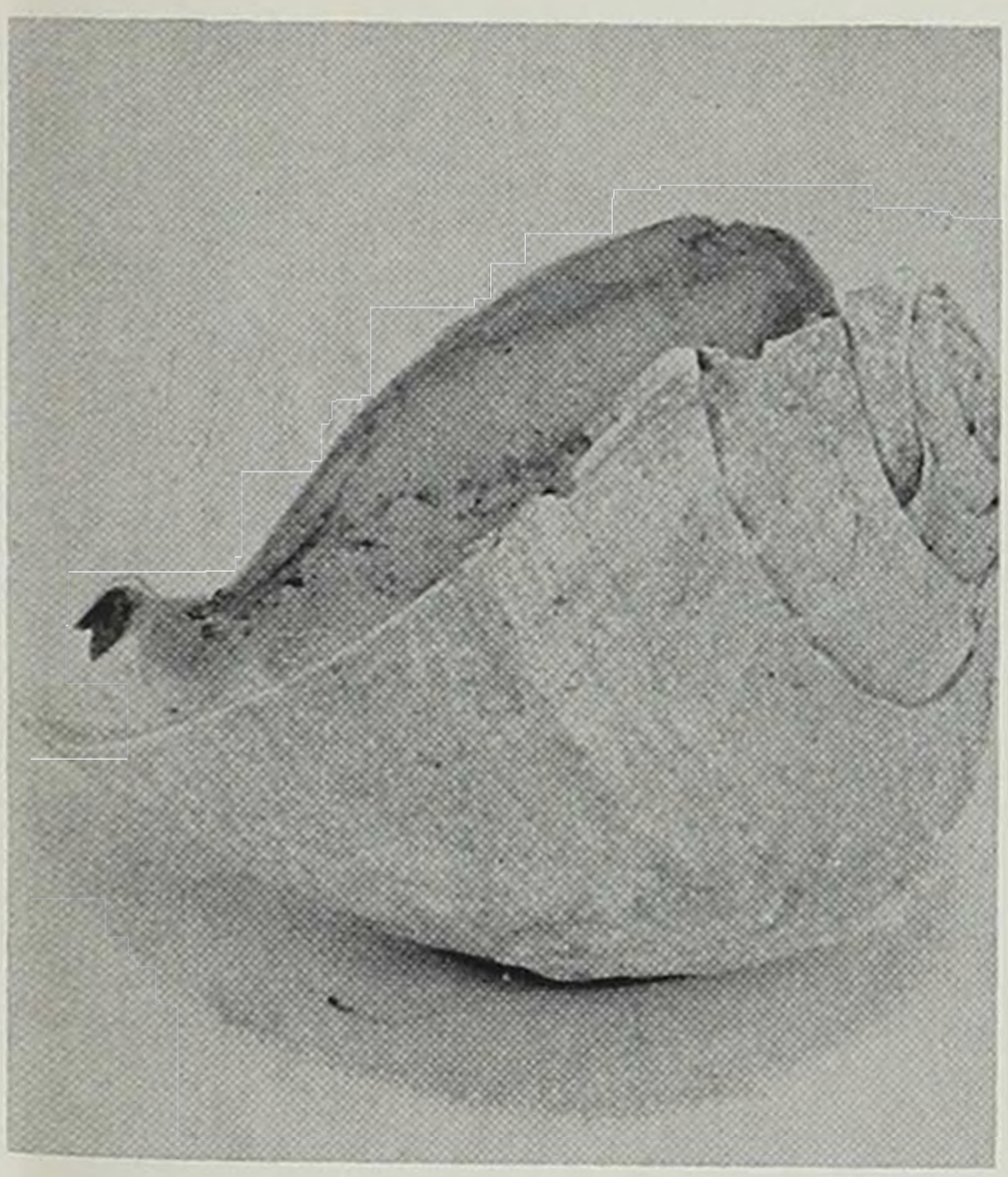
Figure 3

A figure of a Hopewell man. The head was enlarged from a figurine and dressed in antler headdress of copper, copper ear ornaments and pearl necklace from a mound in Ohio.

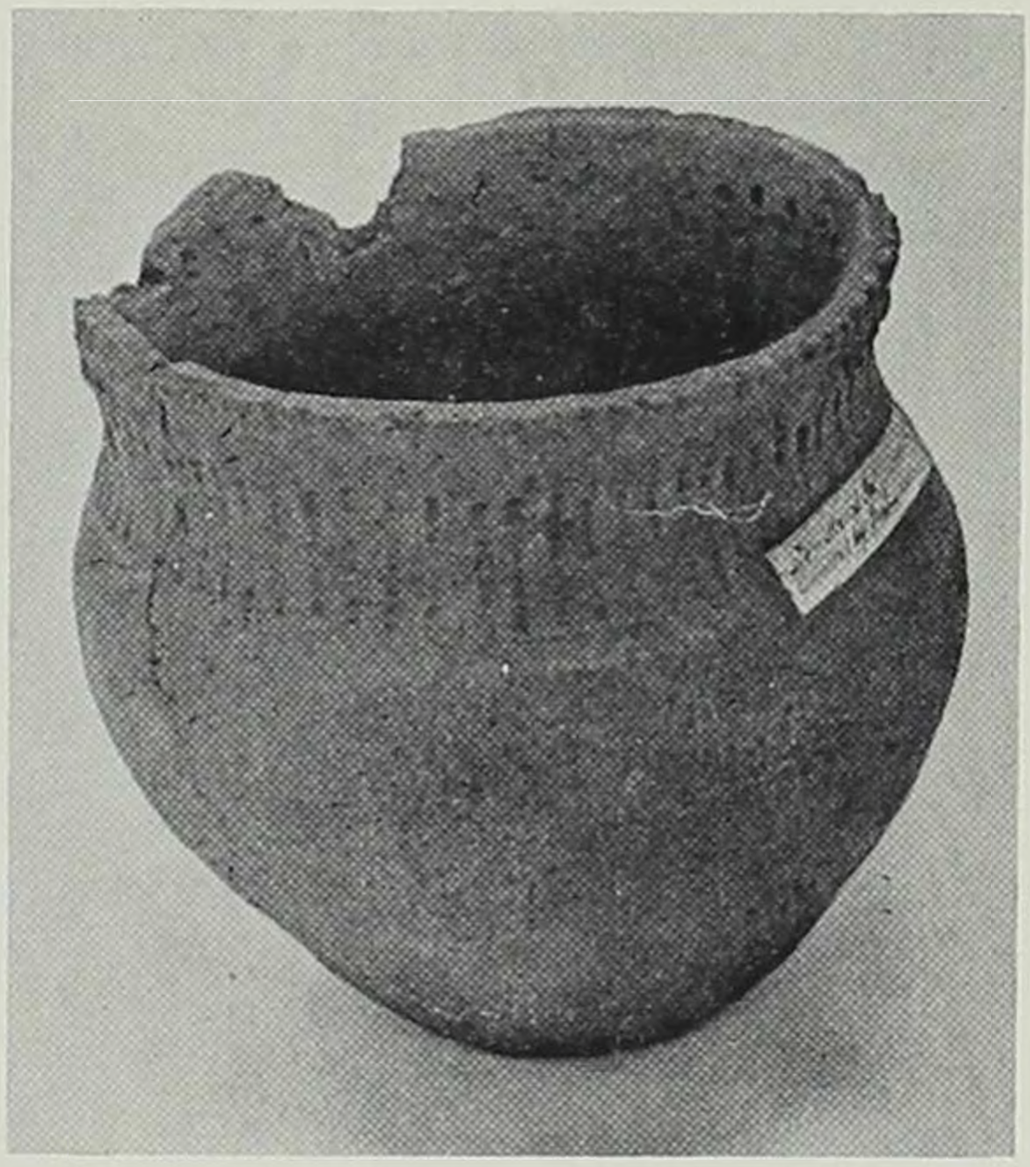


Artifacts from Hopewellian mounds in Iowa: a. projectile points from Cook Farm; b. copper celt from Cook Farm; c. copper celt from Toolesboro; d. copper hemisphere, Cook Farm; e. silver hemisphere, Cook Farm; f. copper beads, Cook Farm; g. copper awl, Toolesboro; h. obsidian projectile point, Cook Farm. (*Drawn from Pls. V, VI, Proceedings of Davenport Academy of Natural Sciences, Vol. I.*)

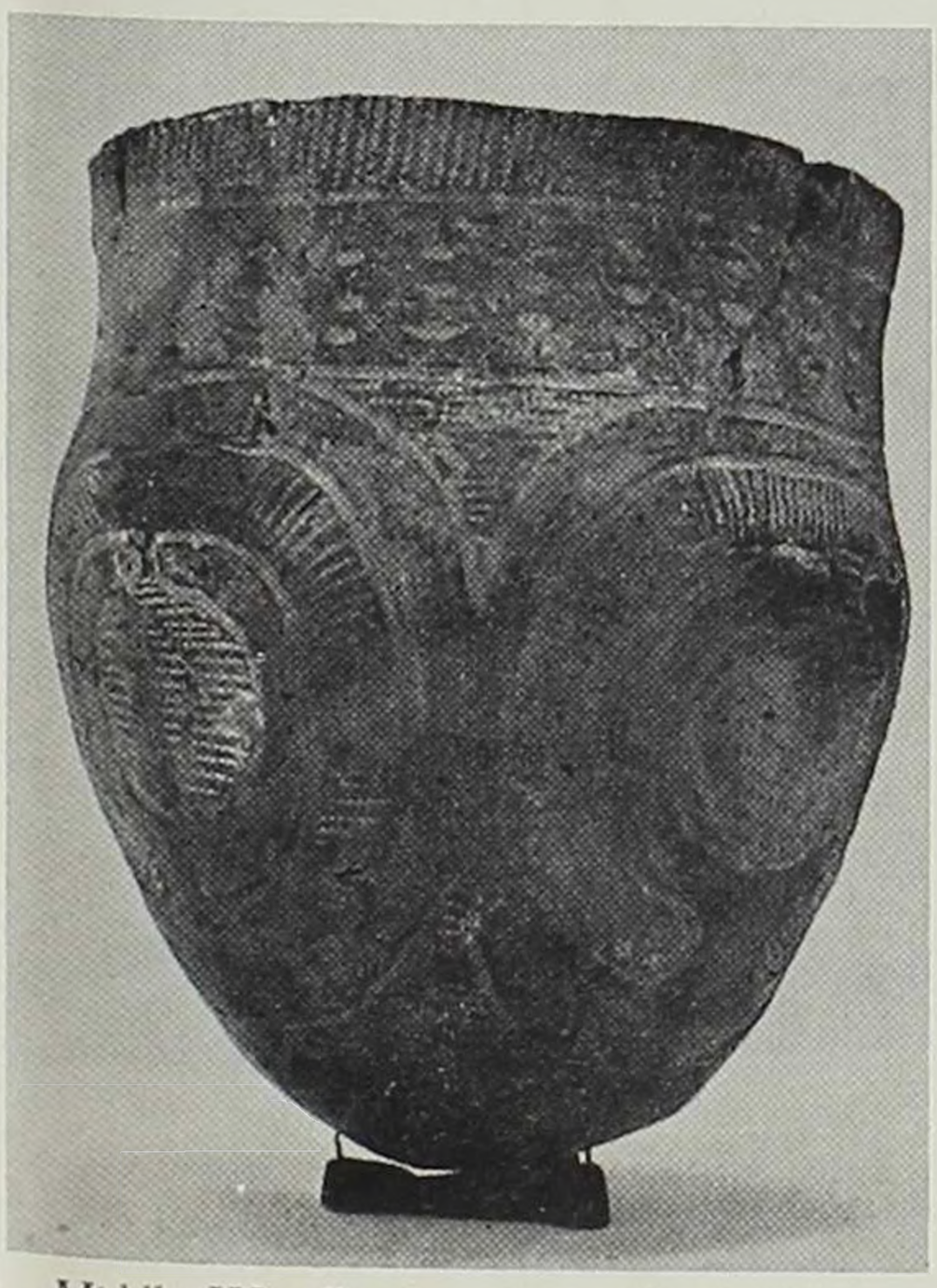
Artifacts from Toolesboro pictured here include copper celts, copper awls, obsidian core, effigy pipes and plain mound builders pipes, and a string of shell beads.



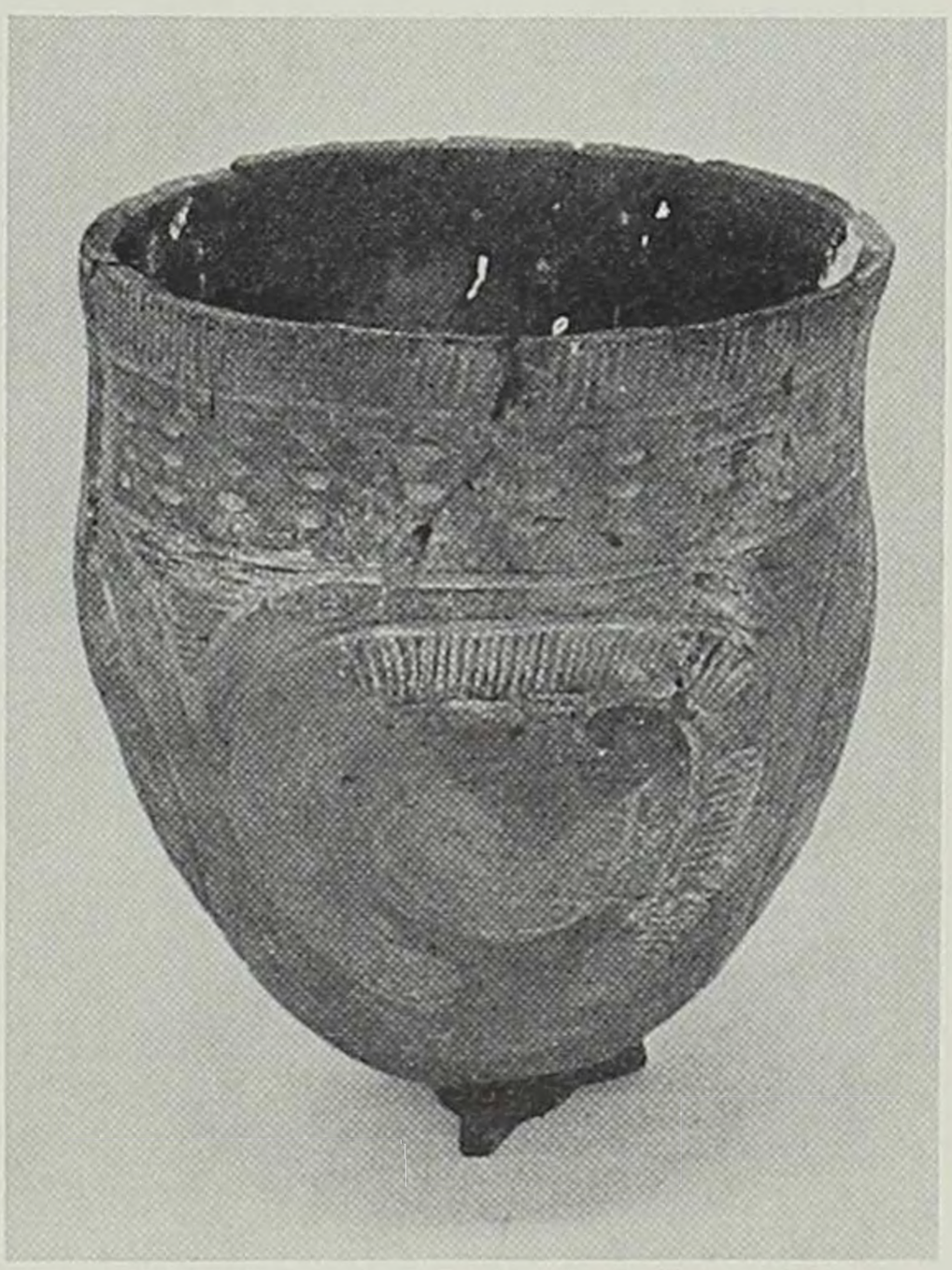
Marine Shell.



Middle Woodland pottery—Cook Farm.

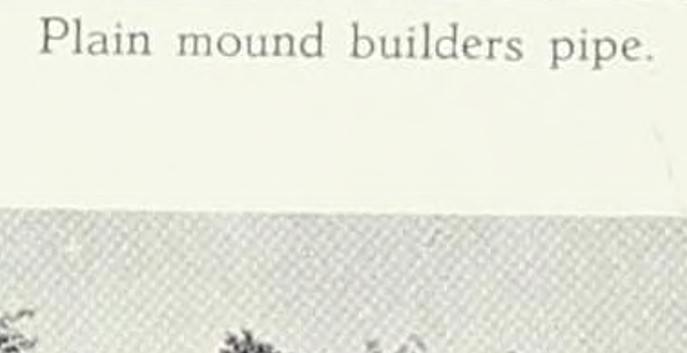


Middle Woodland pottery—Cook Farm.

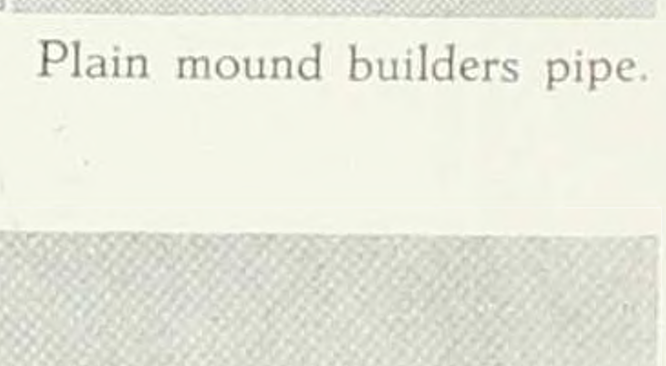


Middle Woodland pottery—Cook Farm.

Blank or unfinished pipe.



Plain mound builders pipe.



Plain mound builders pipe.

State Historical Society photo

This, the largest, is one of six Toolesboro Mounds now owned by the State Historical Society of Iowa. It has not been excavated.

In others, cremations were placed on platforms. Usually there was more than one individual in a tomb. Grave offerings, placed with burials and cremations, included pipes, cut sheet mica, copper axes and ornaments, beads and pottery vessels.

When the tombs were filled they were covered with small mounds of earth and the wooden structures around them were burned. Then a larger mound of earth was erected over the whole area with the outline of the wooden structure serving as the limit of the mound base. When there was no more space in an enclosure, a new site was selected for another.

The construction of such large enclosures and the large and impressive mounds must have required the cooperative efforts of more than the occupants of one small village. Prufer has suggested that the individuals buried in the mounds were members of a privileged class whose survivors organized the labor for the construction of the monuments. Perhaps this privileged class was a small priestly ruling group who occupied the enclosures part of the year. At any rate, some inter-village social organization was required to plan the structures and organize the labor.

In Illinois most of the mounds are subconical structures which are located in groups along the bluffs above the village sites or nearby on the flood plain. There are usually five to fifteen mounds in a group. However, some groups are larger. There

are 81 mounds in the group at Albany, Illinois.

Usually a mound was built by removing the top soil and putting down a layer of clean sand. A pit was dug in the center of this prepared floor and a log tomb was built around it. In some mounds the tombs were of logs and stones, or of stone slabs. In other mounds, there was no subfloor pit, but the burials were placed on the prepared floor.

Both extended and bundle burials occur in the mounds and in some instances there are also cremations. Individuals of both sexes and all ages have been found. Grave goods—ceramics, pipes, earspools, beads or occasional utilitarian objects—were placed with some individuals in a tomb. Often special dark soil was placed over the burials.

In some mounds there is evidence that the tombs may have been open and individuals added from time to time. During the interim the tomb may have been temporarily covered with matting or bark. Sometimes a number of individuals appear to have been bundled and stacked at one end of the tomb, or on top, after it was closed. The contents of the mounds vary, no two are identical, even in the same group. After the tomb was filled, earth was piled over it, a basket load at a time, until the mound was completed. Surveys have indicated that the ratio of mound group to village sites in the Illinois River Valley may be one to three, so perhaps several villages cooperated in building the mounds in a group.

The ceremonial aspect of the Middle Woodland life is the most impressive. Undoubtedly their religion was concerned with gods who were associated with the sun and the rain and fertility for these things are important in the lives of simple agricultural peoples. It was suggested above that in the annual cycle there may have been ceremonies associated with the planting and harvesting of the crops. We would probably find that there were others connected with success in hunting. No doubt there were other rituals associated with the birth and naming of children and their passage into adulthood.

Bear ceremonialism may also have been practiced for there were bear teeth and imitation bear tooth ornaments as well as cut and polished sections of bear jaws, but bear bones are missing from the village debris. In historic times Indian groups in the northern part of North America were very respectful of the bears. They avoided eating them or, if eaten on special occasions, the bones were gathered and given special treatment and not placed with the other refuse.

The most spectacular aspect of the ceremonial life as far as the archaeological record is concerned is that associated with death. Great care was taken in the dressing and laying out of many of the individuals buried in the flesh. In Ohio the great majority of individuals were cremated. These were probably exposed on platforms until

the flesh disintegrated and then the bones were gathered and cremated in special basins before being placed in the tomb in the mound. There undoubtedly was a certain amount of ritual associated with each stage in this burial procedure. As most of the mounds, and the tombs within the mounds, contain more than one individual, it is possible that the final burial rites—the placing of the individual skeletons in the tombs, and covering the tombs with earth, may have taken place only once a year. Or, it may also be that once every few years individuals from many villages gathered their dead and, with much feasting, singing, and dancing, placed them in the tomb. The best of their ornaments of copper and mica and beautifully made flint blades and copper celts as well as pottery vessels, shell containers and copper, pearl, and shell beads and pipes were placed as offerings. Similar feasts and rituals took place among a number of tribes in historic times.

We may imagine that the processions winding around the mounds must have been impressive,—some priests wearing robes with copper and mica ornaments attached and necklaces of shell and copper beads; others dressed in antler headdresses. There may have been musical accompaniment with men playing panpipes of copper and silver and perhaps rattles, drums and whistles. Such rituals would have been long remembered.

Hopewellian Indians in Iowa

The Middle Woodland period of Indian occupation of Iowa has not been studied in as great detail as some of the earlier and later periods and therefore is not as well known. Although there has been testing and salvage digging in recent years, most of the work was done in eastern Iowa before the turn of the century. In those days it was the custom for a party to get together, visit a mound group and dig one or two on a weekend. The work was often hurried and the record of the findings minimal.

Most of the early work was done under the sponsorship of the Davenport Academy of Natural Sciences. The two men responsible for most of the archaeological work were Mr. W. H. Pratt and the Reverend Jacob Gass. Mr. Pratt was a self-educated man who taught penmanship in the public schools. He was very interested in natural science and was a founder of the Academy. He served as its first secretary and was its curator from 1875 until 1890. Although he had no training as an archaeologist he was systematic and a careful observer and recorded his findings.

The Rev. Gass was a Lutheran minister who lived in Davenport for a time and was a member

of the Academy. He, too, had no formal training in archaeology. He excavated a number of mounds on both sides of the Mississippi River. His reports of that work are not as detailed and give the impression that he was not as painstaking as Mr. Pratt. He is best known, perhaps, because of his association with the elephant pipes and other fraudulent artifacts described by McKusick.

The reports of Pratt, Gass and others were published by the Davenport Academy and the notes and many of the artifacts obtained are still on file at the Davenport Public Museum. More recent studies have been conducted in the Effigy Mounds National Monument in northeastern Iowa, along the Mississippi near Clinton and in southeastern Iowa.

Surveys and testing show that there was some Middle Woodland occupation throughout much of the state. The Indians apparently lived in small villages and in the rock shelters near Maquoketa and in Allamakee County. The heaviest concentration of sites is in the eastern part of the state along the Mississippi and in northeastern Iowa. The distribution suggests that the rivers draining into the Mississippi were the major routes of communication as the Hopewellian cult moved westward.

As there is not much detail on the village and campsites, we can only suggest that the Indians may have lived in groups of small houses much as

those in adjacent parts of Illinois and Wisconsin and that they hunted and fished and collected shellfish in addition to cultivating some crops for subsistence. The ceramics, decorated with linear dentate stamping, suggest that the earliest Middle Woodland occupation here moved in from Illinois in the middle of the occupation, perhaps 1 A.D.

Most of the sites which have been excavated and reported in any detail are mound groups. Two of the most impressive were dug in the Nineteenth Century by members of the Davenport Academy of Natural Sciences. One, the Toolesboro Site, is located in Louisa County and is being developed and preserved by the State Historical Society for the future. The other, the Cook Farm Mounds group, which was located in a now crowded section of southwestern Davenport, has been completely destroyed by the city.

The Toolesboro Site consisted of twelve mounds on the bluff overlooking the Iowa River bottoms. There was a village area on the flood plain nearby and three-quarters of a mile away was another group of six or seven mounds. The mounds were forty to eighty feet in diameter and six to ten feet in height. Four mounds in the main group were dug in August of 1875 by Mr. W. H. Pratt, C. E. Harrison and Pratt's son, and described in the *Proceedings of the Davenport Academy of Natural Sciences* in 1876. Two mounds were dug by hand and one with the aid of

several teams and some of the local citizens. The fourth mound was washing away on the edge of the bluff and was used as a hog pen.

The first mound, dug by excavating a six by nine foot area from the top down, produced only flint chips and scattered human bones.

The second, excavated in the same way, apparently contained a badly disintegrated log tomb and several skeletons including that of a child in poor condition. Near one skull was a platform pipe and a copper pin.

The third mound was more complex. It had a hard prepared clay floor on which the bones and artifacts were placed. There were two or three skeletons in poor condition, a marine shell cup and portions of at least four large pots. One skeleton had a copper celt which had been wrapped in cloth on his chest, and more than two hundred shell beads around his neck. Also on the floor were two platform pipes and three copper axes.

The fourth mound produced very little; a few artifacts were eroded out of it and later donated to the Academy. They included a copper celt, a copper awl, and some possible polishing stones.

In October, 1875, Pratt returned to Toolesboro when he learned that some of the local citizens had been exploring the mounds in the group three-quarters of a mile away. Six men and three teams spent five days digging four mounds. Not much is known about the mounds, except for a record

of the artifacts recovered. The first mound had a prepared sand floor and several skeletons. A large copper celt with a flaring bit "weighing almost two and a half lbs." and a thin perforated bone implement which might have been a shuttle were found.

In the second mound there were five copper awls, a copper celt, a platform pipe, a lump of galena, and several projectile points. In the third mound were broken pots and antler drifters. The fourth produced bones in poor condition, an unfinished platform pipe with a plain bowl which had never been drilled, and some antler drifters.

Because of the way in which the mounds were dug there is very little information about the burial pattern and association of artifacts. The use of the log tombs is recorded.

There were eleven mounds in the Cook Farm group which was located on a low ridge on the flood plain of the Mississippi only eight to twelve feet above the high water in 1875. They varied from fifteen to sixty feet in diameter and from eight inches to five feet in height. The first excavating was done in 1874 by Rev. Gass and a Mr. Smith. This was reported by Dr. R. J. Farquharson in 1876. Later Rev. Gass wrote a report with some additional information on Mound 3 in Volume II of the *Proceedings*. After that Gass reported on Mound 10, also in Volume II of the *Proceedings,* while C. E. Harrison summarized the work on Mound 11 in Volume III.

At least three of the mounds had subfloor tombs in which the burials were placed, and one, Mound 3, had two such tombs. Mound 5 had a hard clay floor. Most of the burials were in poor condition, but some were recorded as extended. In Mound 2 they were placed in a semi-circle in a sitting position. In Mound 4 they appeared to have been wrapped in cloth or some woven fabric. With the burials were grave offerings consisting of marine shell containers, copper celts, a copper awl, copper and silver hemispheres, copper beads, pottery, pipes, yellow and red pigment, galena, bear teeth, a worked turtle scapula, projectile points and knives of chert, an obsidian point, and a snake skeleton. Not all things were found in any one mound, but the list is quite representative of the grave offerings found in other Hopewellian sites.

In Mounds 4, 5 and 10 there were piles of stones which resembled altars. In Mound 5 the stones were burned and in Mound 4 there was a layer of ashes six inches thick covering the burial area. In Mound 10 human bones were found below the altar. Over the burials in most of the mounds the Indians heaped dirt, shells and stones.

In two of the mounds, 3 and 11, fraudulent tablets were reportedly found which were part of the famous controversy. McKusick (1970) has just summarized this in his book *The Davenport Conspiracy*. In Mound 3 the tablet was found in a disturbed situation; in Mound 11 which was also

disturbed, it was under the altar which casts considerable doubt on the altar and other objects found in the mound.

Other mound groups were reported in considerably less detail in the *Proceedings of the Davenport Academy of Natural Sciences*. They were located in groups of from two to ten, along the bluffs in Louisa, Scott, and Jackson counties. They produced pipes, bear teeth, copper axes and other artifacts typical of Hopewellian grave offerings. In some there were stones covering the burials, in others burned clay and ash areas were found. Unfortunately the reports are not complete.

In summary, burial practices in Middle Woodland mounds in eastern Iowa seem to be similar to the practices found elsewhere in the Midwest. There was some cremation, some use of log tombs, and some use of stone slabs—all found in Illinois. The grave goods vary from site to site and include the usual variety of objects considered representative of the Hopewellian cult. More up-to-date and controlled study of sites—both mounds and villages—in Iowa is needed before we will achieve an adequate understanding of the prehistoric occupation of the state at that time and the relationship between it and the nearby areas.

Artifacts from Iowa Mounds

The Middle Woodland mounds in Iowa have produced a variety of artifacts which were placed in the mounds as offerings to the gods, or the dead, or may have represented the property of some of the individuals buried in the mounds. Many of these objects were recovered before 1900 and, fortunately, have been preserved in the collections of the Davenport Public Museum; others were lost through the years.

Most of the pottery vessels were broken before they were recovered or broke during the process of excavation and have had to be restored. Middle Woodland Indian pottery is rather fragile and the weight of the earth in the mounds plus seasonal freezing and thawing made it more so.

The Indians made the pottery of the local clays, mixing the clay with water and adding crushed rock, which archaeologists call "temper" to make the clay easier to handle and reduce the shrinkage of the vessels and breakage during firing. A vessel was shaped by coiling the clay around until a roughly shaped pot was formed. Then a smooth stone or hand was placed inside and the exterior was paddled with a wooden paddle wrapped with cords. Most pots have rounded or bluntly point-

ed bottoms, rounded bodies, slightly constricted necks and very slightly flaring rims. Once the vessel was shaped all or part of the surface was smoothed and then decorated by drawing a blunt stick or bone through the clay or pressing a notched piece of shell or bone into the surface.

We have no good evidence of how the pottery was fired, but it could have been done in an open fire, covering it with an abundance of wood and bark. The variations in color from light tan to dark brown indicate that the firing temperature and conditions were not well-controlled. The temperature achieved during the firing probably was not very hot by modern ceramic standards. The vessels were therefore somewhat porous.

Most of the pottery from the Iowa mounds is not as fine as the finest specimens which are found in mounds in Illinois and Ohio which have been classified as Hopewell Ware. Instead it is more like the Havana Ware common in the Illinois River Valley villages and also occurring in the mounds. One specimen from a mound in Buffalo Township has a body decorated with plain and dentate stamped zones, a plain shoulder and a band of punctates below the rim. Another, from the Cook Farm Mounds, has a body decorated with a geometric pattern of incised lines, a band of punctates around the neck with diagonal dentate stamped lines and nodes above it.

Many potsherds or broken vessel fragments

with similar decorations have been found on village sites throughout Iowa. Much of this pottery suggests strong influence from the Illinois River Valley during the Middle Woodland period.

The stonework of the Middle Woodland period can be divided into two groups—chipped artifacts and ground and polished stonework. The chipped stone artifacts include knives, projectile points and scrapers. Most of these are made of locally available chert. The projectile points, the most diagnostic implements, are notched or stemmed. Occasionally a point or flake of obsidian does occur. This material, of course, is not native to Iowa and had to be traded in from the Rocky Mountains to the west.

Ground stone artifacts include axes and celts and the more impressive pipes. Axes and celts are made of selected waterworn pebbles which were roughly shaped by chipping and then pecked with a harder stone and finally finished by smoothing and polishing with water and sand. An implement of this type could be made in a few hours.

The platform pipes are typical of Middle Woodland sites. Some of these found in the mounds in Iowa were unfinished—roughly shaped but not drilled or smoothed, indicating that some of these specimens must have been made locally. Others may or may not have been the result of trade. More work in village sites and a study of village refuse may clear up this question. The

pipes must have been roughly cut, probably using sand and string, then ground and polished with more sand and water and finally drilled with sand and hollow reeds or tubes or stone drills. The most difficult part of the task was to drill the small hole through the thin platform to connect with the one coming down through the bowl. Some pipes are plain with "vase-shaped" bowls, but the more spectacular ones are those with the effigy bowls. A frog effigy, a bird effigy and an animal which somewhat resembles a dog were found at the Cook Farm. Another bird effigy was found at Toolesboro. Effigy pipes are not as abundant in Iowa as in Ohio where the finest examples are found. Pipes show some indication of having been smoked, but smoking probably was reserved for ceremonial occasions.

Copper implements and ornaments were made by cold hammering and annealing pieces of float copper found in the glacial till and copper obtained from the Upper Peninsula of Michigan. Copper artifacts were found quite frequently in Iowa mounds. Some celts were wrapped in textiles which thereby were preserved. Other copper implements include awls, beads and hemispheres. The function of the last is not known, but they do occur in other Middle Woodland sites. A similar hemisphere of silver was found in the Cook Farm Mounds. Items of silver are very unusual in Hopewell Mounds.

Other trade items found in the mounds are the shell dippers reported from the Toolesboro Mounds, the Cook Farm Mounds and mounds in Buffalo Township in Scott County. These artifacts, made by cutting open large marine shells, may have been traded as finished items or manufactured locally. Only in detailed studies of refuse middens will the answer be found. Beads of marine shell were also found at Toolesboro.

Bear canines were drilled and worn by Hopewell Indians. One was found at Cook Farm, others came from mounds below Maquoketa.

Red and yellow ochre were found in the Cook Farm Mounds. These minerals probably were used for body paint or when decorating skins. Other minerals include galena which probably came from northwestern Illinois and mica from the Appalachian Mountains. Why the Indians prized them is not known but they occur rather commonly on Hopewellian sites. Mica, of course, was cut into ornaments in Ohio.

The artifacts recovered from Hopewell Mounds in Iowa are typical of those found in similar sites elsewhere in the Midwest but they are not as abundant as in Ohio or Illinois. The quality of workmanship is not up to the high standards of the finer specimens found to the east. However, they do attest to the spread of the Hopewellian cult into Iowa and to the widespread trade contacts of the Indians at that time.

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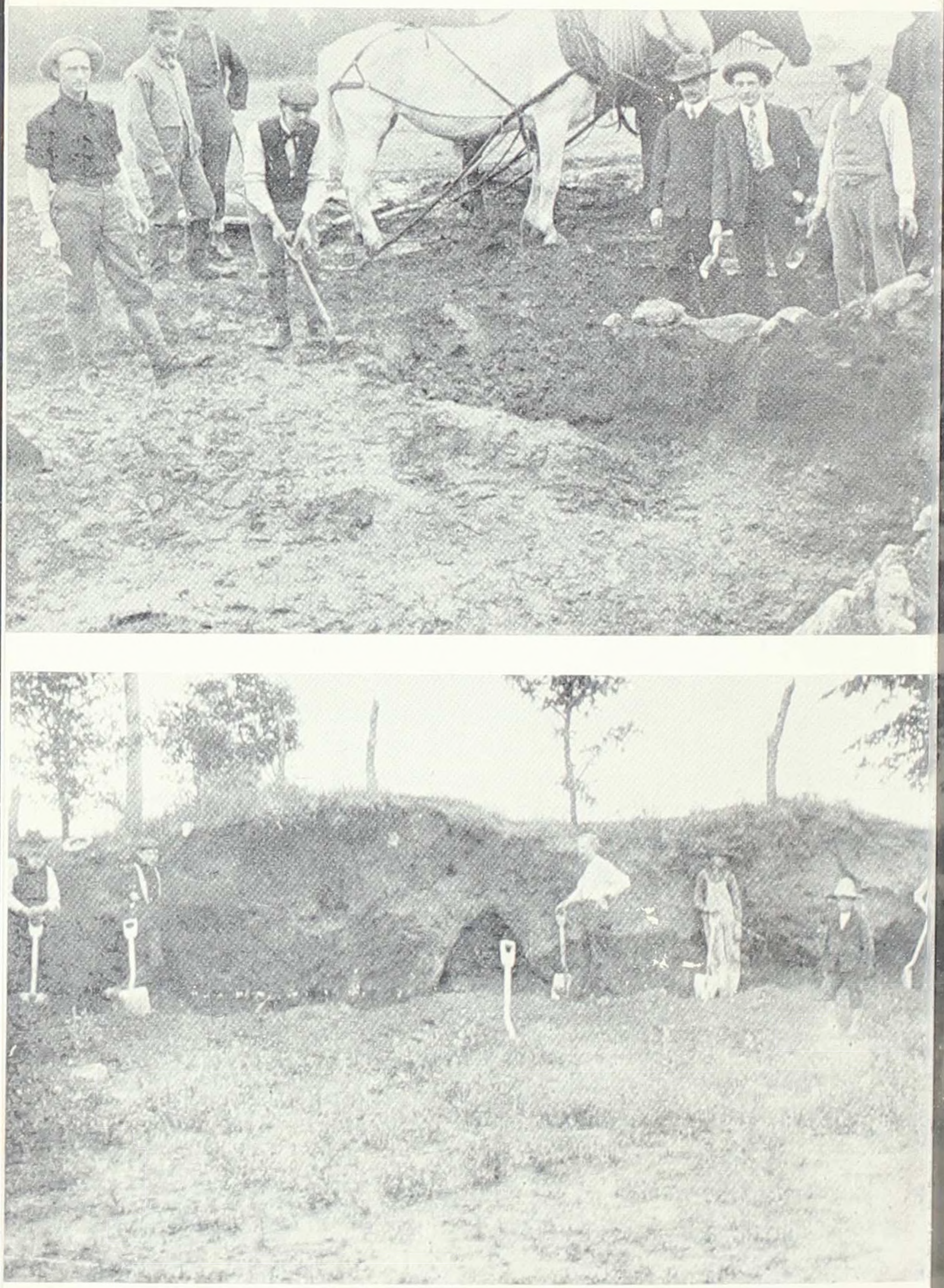

Davenport Museum excavating mounds in Albany, Illinois—1908-1910.