HOPEWELLIAN FIGURATIVE SCULPTURE

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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Approved by:

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Adviser
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PREFACE
Hopewellian Art is marked by impressive two and three-dimensional carvings representing naturalistic and geometric forms. These forms are treated in a highly characteristic fashion; once seen they can be recognized anywhere. Located in the eastern half of the United States, these Hopewellian peoples fashioned artifacts from a considerable variety of materials which were deposited within earthen burial mounds. Since the middle of the nineteenth century innumerable examples have been recovered from excavations by both professional and amateur archaeologists. Housed in museums and institutions, these objects have been briefly described in articles and field reports. No attempt, however, has been made with any degree of detail to analyze and interpret this spectacular art style, whose high aesthetic qualities merit it worthy of such consideration.

The object of this work is to establish and evaluate the art styles in the Hopewellian region. By means of a careful analysis the study attempts to discover what values can be derived both for the art historian and archaeologist. It is thus a pioneering work. Every effort has been made in the use of the objects themselves and the literature pertaining to the region to allow the styles to emerge in the context of their culture so that they may be seen in proper perspective. With this in mind, the analyses upon which the conclusions are based have been thorough.
It became advisable to restrict this study to figurative representations of human and animal forms. These are the most impressive and aesthetically satisfying. The geometric designs, however, will be generally considered where associated with the figurative forms. To further clarify the distinctive Hopewellian art style several typical forms of the neighboring Adena culture have been briefly described in the Appendix.

For this study all the available specimens were examined first hand, except those few examples found in institutions situated along the Gulf Coast area. In addition to the characteristic Hopewellian carvings, those that represent the divergent types and styles of their art have been selected and included in this analysis. The large majority of objects are documented while others possess a reliability of provenience.

Without the generous cooperation of many persons and institutions, the writing of this paper would not have been possible. The author is particularly grateful for the one year fellowship from the Ohio State Museum which has enabled him to undertake this study. For invaluable counsel, constant encouragement, and careful reading of the manuscript, very special thanks are given to Dr. Paul S. Wingert of the Department of Fine Arts and Archeology of Columbia University. He is also indebted to Professor Ralph Fanning of the
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The following institutions very generously placed their facilities at the author's disposal, or, where it was not possible for him to visit them, kindly sent the necessary information: The Ohio State Museum, Columbus, Ohio; the University of Kentucky, Lexington, Kentucky; the Illinois State Museum, Springfield, Illinois; the Peabody Museum, Harvard University; the Smithsonian Institution, Washington D. C.; the Milwaukee Public Museum, Milwaukee, Wisconsin; the American Museum of Natural
History, New York; the Museum of the American Indian, Heye Foundation, New York; the Chicago Natural History Museum, Chicago, Illinois; the University of Michigan, Ann Arbor, Michigan; and the New York State Museum, Albany, New York.
CHAPTER I. INTRODUCTION
Centuries before the coming of the white man to North America, the peoples inhabiting the area of eastern United States had attained a comparatively satisfactory adjustment to their environment. They developed a diversity of cultures differing in ceremonial, burial, and materialistic traits. It was, however, only among several groups that a sculptural art existed and occupied an important position.

The cultural and artistic culmination in this eastern region was achieved by the extensive So-called Hopewellian peoples. Although concentrated in the Ohio Valley, they inhabited the area eastward to New York, westward to Kansas, and southward from Wisconsin to Louisiana. An integral feature of their culture was the use of sculpture for the many ceremonial and burial customs, evidence of which was found in the mounds. Apparently various figures, effigies, and designs were carved for their aesthetic enjoyment, while utilitarian objects were most expertly fashioned. There are no chronological dates, but it is agreed that the culture antedates the coming of the white man.

1The term Hopewellian is derived from the name of M. C. Hopewell owner of the land in Ross County, Ohio, on which were located the Hopewell Mounds, excavated and reported by Moorehead in 1922.

2Griffin, 1952, p. 369. Several recent Carbon 14 tests place the Hopewellian period from ca. 350-750 A.D.
It is important to note that the art seems fully developed in this region, no works having been found that exhibit any preliminary attempts or crude beginnings. This remarkable circumstance is further complicated by the prevalent practice of ceremonial "killing" or of purposely destroying many objects before depositing them in the mounds. Moreover, other carvings were frequently placed under destructible conditions in close proximity to the intense fire.

The two major Hopewellian centers were in the north. Most spectacular are those mound groups in southern Ohio, (see Map, Pl. 1, fig. 1) namely the Hopewell Mound Group, Mound City Group, Turner Mound Group, Seip Mound Group, and the Tremper and Edward Harness Mounds. The other center is in western Illinois along the Illinois River, with scatter-

(footnote 2, continued from p. 7) Linton, 1951, p. 13. "This dating method (Carbon 14) is a by product of modern atomic studies. It rests on the discovery that a radioactive isotope, Carbon 14, is constantly being produced in the earth's atmosphere by the collision of cosmic rays with nitrogen atoms. The proportion of this isotope to other carbon in the atmosphere seems to be constant at all times and places. Atmospheric carbon is assimilated by living organisms, whether plant or animal, but the assimilation ceases at death. Since Carbon 14 has a half-life of 5,568 ± 30 years, by determining the percentage of this isotope in the total carbon of a specimen, it is possible to date it with a comparatively small margin of error. The method cannot be used for material more than 25,000 years old. Dates based on uncharred wood or bone also must be taken with some reservation, for these substances may exchange carbon with deposits in which they are buried. In spite of these limitations, the technique is the best tool so far made available for dating early remains."
fig. 1. Figurative Sculpture from Hopewellian
Sites Included in this Study.

Ohio
1. Hopewell Mound Group
2. Mound City Group
3. Turner Mound Group
4. Seip Mound Group
5. Tremper Mound
6. Edward Harness Mound

Illinois
7. Knight Mound Group
8. Wilson Mound Group
9. Whitnall Village Site
10. Snyder Mound
11. Baehr Mound

Louisiana
12. Marksville Mound Group
13. Crooks Site

Mississippi
15. Bynum Mound

Indiana
14. Mann Site

Oklahoma
16. Delaware County
ed sites along the bordering Mississippi and Wabash Rivers. Sculptural material in this study was found at such sites as the Knight Mound Group, Wilson Mound Group, Baehr Mound Group and the Ogden-Fetti Mounds.

An important but less extensive center was in the lower Mississippi Valley; the Marksville Mound Group and Crooks site of Louisiana. Other smaller comparable sites are found in Wisconsin in Trempealeau County; Indiana at the Mann, Worthington and Goodall Mounds; Lousia County, Iowa; and along the east and west coasts of Florida.

The large size of many Ohio sites indicates a considerable population and lengthy occupation of the region. Their complexity and elaborateness of structure became the standard against which archaeologists measured Hopewellian sites in other regions. These people were relatively sedentary in nature. They engaged in agriculture, cultivating beans, squash, and pumpkins, while corn was found at some sites. They supplemented their livelihood through hunting, fishing, and food gathering.

These Ohio people were the "great earthwork" builders, constructing extensive geometric earthworks in combination with burial mounds. The great size and complexity of such major sites as Hopewell Turner, Mound City

1Charred corn was found at the Turner and Edwin Harness Mounds. Willoughby, 1922, p. 29; Mills, 1907, p. 123.
and Seip,\(^1\) indicates the prevalence of some definite type-plan involving a considerable period of time for its completion.\(^2\) Apparently the majority were not defensive structures, but rather part of a sacred and ceremonial precinct with evidence of occupation in the area. The peoples at these sites probably conformed to individual tribal groupings within the same cultural tradition.

The area selected for the construction of a mound was cleared, leveled, and covered with a clay floor. Upright wooden "timbers" were placed into the floor enclosing the area, usually in a circular plan and provided with entrance-ways. Within these wooden structures, or enclosures, were interred the remains of the dead. Afterward, these wooden structures were burned and the area was covered with earth. The mound consists of an initial earth covering, or primary mound, which is readily recognizable as it covered the prepared burials in the mounds. The final deposit, or secondary covering of earth, which completed the erection of the mound, was practically devoid of intentionally placed burials excepting near the surface where intrusive

\(^1\) The Turner Mound Group consists of a circular enclosure 480 feet in diameter connected by a graded way 600 feet long with a large oval enclosure measuring 1500 feet in length by 950 feet in width. To the south was a long narrow enclosure with low parallel walls about half a mile in length. A total of fourteen mounds are found within the two enclosures. (see Pl. II, fig. 2)

\(^2\) Hopewellian enclosures or earthworks of the geometric type are practically non-existent outside of Ohio.
fig. 2. Turner Mound Group, Ohio
burials were occasionally made by subsequent peoples.

The majority of Ohio Hopewell dead were cremated, while the remains of seemingly important personages were interred in the flesh and placed on the floor of the mounds within log tombs. In many cases, the cremations, either singly or in combination, were enclosed with logs or stones and occasionally accompanied with varied amounts of materials.

Culturally and physically, Hopewellian sites are very closely related with an interchange of specific types of native and imported materials. They were contemporaneous and reveal a strong feeling of uniformity. Hopewellian sites to the north, west, and south of Ohio similarly suggest individual tribal groupings, differing in some respects from the above northern centers. Their affinity to the Ohio sites is marked by the close similarity of mound construction, manner of interment and especially associated materials or artifact types.

The considerable number of varied materials found in the mounds strongly suggest a wide flung flourishing trade, commerce and cultural relations engaged in by these Ohio peoples. They obtained from Florida and the Gulf Coast

1 Cooper, L., 1933, pp. 72-8. An unusually feature was recorded from Hopewellian mounds in the Red River region of Wisconsin. This consists of clay masks with human features modeled on a skull which was later cremated. (Pl. III, fig.3).

2 Gold, silver, and precious stones obtained from the mounds are so rare that they may be considered almost non-existent.
fig. 3. Clay mask modeled on a human skull; Wisconsin
region large busycon and cassis shells, barracuda jaws, tortoise shell and teeth of the spade and shark. Mica was found in Virginia and North Carolina; copper from the Great Lakes region and obsidian from the northern or southern Rockies, eastern Arizona or an undetermined source. In addition, grizzly bear canine teeth secured from the Rocky Mountain region were frequently inlaid with fresh-water pearls found along the waterways of the Ohio Valley.

The primary purpose of these exotic materials was probably for ceremonial requirements and subsequent placements with the honored dead in large complex burial mounds. A religious motivation for their acquisition seems plausible as the materials were closely associated with the deceased and many specimens had practically no utilitarian importance or significance. Their procurement suggests an extensive Hopwellian system of trade or barter. In part, it may have involved trips of individuals to these areas on regular definite missions to obtain the raw materials.

Ohio Hopewell marks a high peak in ceremonial procedure and art maturity. This is based on an apparent long tradition of cultural development in the area preceding

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2. The theory that these traders brought with them recently finished products from the Ohio area is stimulated by the few sporadic finds of Ohio-like materials at these distant regions.
their decline. Organized into a well-integrated society, the great earth constructions were probably made possible by a political organization, and large scale cooperative labor. The elaborate construction and uniform ceremonial practices of interment of the dead implies the presence of a priesthood class that established and regulated the rituals. \(^1\) The high quality and homogeneity of the Hopewelian art style strongly suggests the existence of a specialized or professional class of craftsmen, rather than the role being one of skill or personal selection.

The position of the artist in this culture cannot be determined. Whether or not he was socially significant, sometimes with an important political or social status, is hypothetical deductions. It can, however, be stated with some justification that his presence in the society and the imposing production of art reflect the economic security of the group that permitted the time necessary for the creation and development of art.

Man and the animal life around him provided the subject matter and basic forms of Hopewelian art. The portrayal of animal life was one of the most interesting expressions of the sculptor's aesthetic impulse. It was

\(^1\) Adis-Castro, E. and G. K. Neumann, 1948, pp. 33-6. The authors discuss the probability for the inbreeding of the ruling class (i.e., those burials in the mounds) on the basis of the hereditary factor of ear exosteses or bony growths in the ear region.
stimulated and maintained, in part, by ceremonial and ritualistic interests but also done with an obvious zest and understanding. The animal's life and habits held the attention of those who could combine the requisite skill of hand, acute observation and sympathetic interpretation. Concerned with a fauna with which they were extremely familiar, the sculptors were intent on giving them sculptural form and meaning. Even the few fantastic shapes and carved designs indicate that they were largely derived from these life experiences in as much as the imaginary elements are supplementary to them.

Group requirements may have dictated the selection of the forms, and magical potency may have been their only recommendation; they are nevertheless imbued with a decisive art quality. Whatever the motivation, whether ceremonial or utilitarian, the results are of such striking character that they must soon have acquired an intrinsic value. Thus developed an animal art which is a distinguishing feature of the Hopewellian culture. It became a constant preoccupation of the sculptor and was pursued with an unflagging energy and masterful achievement in almost every medium.

Crude beginnings and many fumblings mark the early stage in the evolution of any art tradition. From these developed the sophisticated styles which adequately convey the intended meaning and wholly satisfy the aesthetic
demands of both artist and audience. Hopewellian sculpture shows every indication of having developed a highly sophisticated art style. In it, as in all art styles of every age, country and cultural level, the good artist created masterpieces but the poor artist carved inferior objects. Yet he worked in the same tradition. It is therefore necessary to distinguish in Hopewellian sculpture as in that of all peoples, the products of the artist from those of the inexpert craftsmen who are not able to give their carvings the strong conceptualization and the vitality of expression so evident in the sculpture of the true artist.

These Hopewellian carvings have been divided into two parts including three and two-dimensional sculpture. In the former, the works conform to styles within several different types of objects, whereas in the latter section they conform to three basic styles: naturalism, semi-naturalism and conventionalization.

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1For practical reasons of classification the many varied types of cut out shapes have been included under two-dimensional sculpture although they are not considered as sculpture in the strict meaning of the term.
CHAPTER II.
CLASSIFICATION AND ANALYSIS OF STYLES
PART I: THREE-DIMENSIONAL SCULPTURE
Classification and Analysis of Styles

Hopewellian art was basically sculptural,1 carved from a wide range of materials, such as clay, stone, copper, bone and shell. The sculpture consists of carvings in the round, varying degrees of high and low relief, flat two-dimensional forms, incised shapes and cut-out designs.

From the aesthetic standpoint these three-dimensional carvings are diversified and can be grouped according to styles within each of four classes. This procedure may appear arbitrary because of the possible overlapping of a work into two or more groups, but study of the whole of Hopewellian sculpture has led to this method as the most practical. A classification and analysis of the styles follow.

Pipes

Hopewellian sculpture is best known by the great number of finely executed pipes carved from single pieces of stone.2 They conform to two basic groups; the platform

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1 The only surviving evidence of painting, aside from the decoration of sculpture, are designs of several colors applied to woven fabrics. The fabrics, in contact with copper, were preserved by the chemical action of the copper salts. Shetrone, 1931, pp. 151-3; Deuel, 1952, p. 257.

2 Technically, the pipes were apparently pecked to a rough shape by a stone hammer, then were carefully completed by carving with a flint flake knife and grinding with stone abraders. The pipe stem was probably bored with chipped flint drills. Copper tools may also have been employed.
and modified tube forms. The former carved from pipestone is more characteristic, representing a far greater number of examples. This platform type is identified by a bowl, either plain or effigy, rising in the center of a thin, wide longitudinal base or platform. The platform is either straight or concave in the center. A tobacco chamber is carved downward through the bowl and connects with a longitudinal smoke hole drilled within the platform and opening at one end. This end is placed between the lips eliminating the need for an additional stem. These pipes are relatively small in size, ranging from three to six inches in length and three inches in height. The modified tube form is defined by a horizontal tube carved in the form of an effigy with a plain or effigy bowl rising from the center. These examples are generally larger in size, ranging from six to ten inches in length. In contrast to the pipestone material of the platform type, some are carved from steatite and clay. The highly polished surfaces characteristic of both types are attained by rubbing with

1 A possible stylistic progression has been advanced for the development from the tubular to platform pipes. For instance, from the Tremper Mound there was found, in addition to plain tubular specimens several tubular pipes with a bowl carved at the top. (Pl. 4, figs. 4, 5, 6.) The latter forms a possible transition between the tubular and platform type, whereby the tube is flattened and the bowl is carved in the center. This concept, however, remains somewhat conjectural as does the origin of the smoking pipe.
fig. 4. Tubular pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
fig. 5. Modified tubular pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
fig. 6. Platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
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fabric, sand, or the human hand.

These pipes can be grouped into five general types each having one or more modifications. A) flat and concave platform with a plain bowl; B) similar shaped platform with an effigy bowl; C) modified tubular effigy with a plain bowl; D) effigy bowl carved on a tubular effigy platform; E) large free-standing effigies with a bowl on the back and connecting hole at one end. The last type, rarely found in Hopewellian centers, are massive and block-like in shape. They are closely related with pipes from the Tennessee-Cumberland region and more southern areas, associated with other groups of peoples.

Type A

The plain bowl platform pipe, in its various forms, is widely distributed throughout the eastern United States, but predominant at the Hopewellian sites. The vast majority of these pipes have been recovered from the Ohio Hopewell mounds widely exceeding in quantity those from all other sites. Generally, these Ohio pipes are stylistically uniform in design, size, shape and proportion. They are symmetrically conceived with a perfect balance of parts. The platform ranges between a flat, thin shape to one with a more thick rounded base. Occasionally, a raised ridge, formed by undercutting or bevelling the sides, runs along
the top making the interior path of the smoke hole.

The bowl is characteristically round with a wellturned rim at the top, convex constriction in the center and enlarged swelling at the base. (Pl. V, fig. 7). This treatment creates a distinctive undulating profile, which ranges from a gentle modulation to an almost "S" shape. Straight-sided bowls are extremely rare in the southern Ohio area. The bowls are invariably plain and highly polished, but some are decorated by such features as a single incised line or curvilinear design around the swelling of the base or a series of notches on the rim. (Pl. V, fig. 8; Pl. VI, fig. 9). An interesting distinguishing feature of many pipes from the Hopewell-Mound Group is an incised line at the swelling of the bowl (Pl. VI, fig. 10). This treatment imbues the pipe with a more rigid feeling of form in contrast to the continuity of surface in pipes from other Ohio sites.

An almost constant proportion is maintained between the parts, i.e., the height of the bowl generally conforms to half the length of the platform. Although in some examples the bowl is greatly increased in size, the platform is correspondingly lengthened and tends to retain this proportion and shape. (Pl. VII, fig. 11).

1 On the basis of the many partly finished pipes, it appears that the tendency was to carve the pipe near to the desired shape before drilling the bowl and interior smoke hole. This interior hole does not exceed 3 mm. in diameter throughout the platform.
fig. 7. Platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio

fig. 8. Platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
fig. 9. Platform pipe, pipestone, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 10. Platform pipe, pipestone, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 11. Platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio.
Conforming to this type is a more elaborate example with the bowl decorated by geometric elements in combination with an incised effigy design. (Pl. VIII, fig. 12). The stylistic characteristics of this design have been repeated in the engravings on pottery and bone. Below the rim a series of small holes encircle the bowl and further down, where the bowl begins to expand, is a row of small projections. On the body of the bowl are two pairs of stylized confronting bird heads probably representing the duck bill. Simply delineated, their rounded forms are centrally placed on both sides of the bowl. The curvilinear line separating the beak from the body is reminiscent of the incised facial detail on the carved effigy pipes of the following type. The two concentric rows of small circular motifs, are typical elements in two-dimensional Hopewellian sculpture, as on the pottery and copper designs.

The comparatively few specimens found at Hopewellian sites outside of Ohio bear both similarities and differences to the Ohio pipes in material and style. They are modeled from the available materials, such as, steatite, clay and pipestone. The surfaces are smoothed, highly polished, and contain practically no incised decorations. Due to the paucity of examples and the variety of shapes among them, it is almost impossible to establish a basic style, as in Ohio. It may be that the platform pipe was extensively developed in Ohio and subsequently found its way into other
areas. The style and treatment in these marginal areas is obviously similar to the pipes from Ohio, except for several variations. These variations include a tendency towards bowls that are straight-sided and even rectangular. The rim may be greatly enlarged as an overhanging element. In some instances, the pipe deviates from the symmetrical norm, with the bowl placed off-center. Furthermore, the well-balanced proportional relationship of parts is ignored, whereby, the bowl becomes either markedly less than or more than one half the length of the platform. Sometimes there is a wide discrepancy in proportions with the bowl carved as a very minor element compared to the large size of the platform.

The pipes most closely related to those from Ohio are found in the Illinois mounds. This relationship is in keeping with the extensive association between these centers based on other features, such as, burial traits and artifacts. An example from the Wilson site, also carved in pipestone, reflects in its curved platform, undulating profile of its bowl and well-turned rim, the characteristic style of type A. (Pl. IX, fig. 13). Another pipe, obviously similar in style, was found at the Ogden-Fettie group near the Spoon River. (Pl. IX, fig. 14). It possesses the concave platform, constriction beneath the rim and incised line marking the swelling of the bowl-features related to those pipes


from the Hopewell Mound Group. Varying in shape is the specimen from the Liverpool Group with the same type undulating bowl; (Pl. IX, fig. 15), but bearing an unusually thick heavy platform which differs from the relatively thin platform common in the Ohio region. Also found at this latter Illinois site is a partly broken clay pipe, (Pl. IX, fig. 16), strikingly similar in shape to the clay pieces found in Louisiana.

Except for one stone fragment, the few pipes recovered from the Louisiana Hopewellian area are fashioned in tempered clay. (Pl. X, fig. 17). Obviously smaller in size, these examples have thick platforms oval in cross-section. This thickness of the platform is continued in the straight sided bowls, and in some examples, the two parts are modeled as one. The small size and the proportions probably result from the more fragile clay material. An interesting bowl fragment from the Crooks mound is carved in siltstone, (Pl. X, fig. 18), stylistically reminiscent of those from Ohio. It bears the undulating bowl profile, well-turned rim and slightly concave platform. Except for the narrow expansion of the tobacco chamber at the base, it could easily be grouped with the Ohio specimens.

The two pipes from Wisconsin are somewhat more varied in shape. There is a decided tendency towards a straight-sided and even rectangular bowl, while the platform retains the general proportions, i.e., slightly more than twice the
fig. 17. Platform pipe, clay, Marksville Bound Group, Louisiana; Smithsonian Institution, Washington, D.C.

fig. 18. Platform pipe, siltstone, Crooks Site, Louisiana; Louisiana State University, Louisiana.
height of the bowl. An example is the pipe found in Tremeleau County, Wisconsin, made from red fireclay and bearing a straight-sided bowl with wide rim. (Pl. XI, fig. 19). Many other examples from this region, as the steatite pipe from Portage County, contain rectangular bowls with sharply cut sides. (Pl. XI, fig. 20).

The relative homogeneity of the numerous Ohio pipes of Type A are readily apparent in this analysis. Similar examples found at neighboring and distant Hopewellian sites suggest marginal styles developed from the basic Ohio center.

**Type B**

Type B includes those pipes with the effigy bowls carved in the center of the platform base. Carved from a single piece of stone or clay, they conform to the dimensions of the predominantly small (previously discussed) plain bowl specimens, not exceeding four inches in length. In color, they range from a light gray or tan to a dark brown. Many were presumably blackened by fires in the mounds.

Both human and animal forms are portrayed on the platform, usually facing the smoker with the tobacco chamber cut downward through the back or head of the effigy. The greater number and most outstanding examples of type B
fig. 19. Platform pipe, clay, Trempealeau County, Wisconsin; Milwaukee Public Museum, Wisconsin

fig. 20. Platform pipe, steatite, Portage County, Wisconsin; Milwaukee Public Museum, Wisconsin
were obtained from Ohio mounds. Although those from other Hopewellian centers are stylistically related, they do not possess a comparable wide range of representation. For instance, the notable refinements of the bird effigies of this type are almost universally restricted to Ohio, with only a few generalized examples from other regions.

In the pipes from the Ohio mounds human representations are restricted to the head, while animal effigies are represented by the whole form, upper part of the body, or with simply the head and neck. Depicted in typical standing, seated and crouching positions, these animal effigies never completely conceal the presence of the bowl. They are either seated above it or carved around and partly covering the central bowl. The bowl, therefore, remains completely subordinate to the figure with straight sides and unmarked surfaces. Frequently the eyes of the effigies are shown as hollow cavities, usually inlaid with freshwater pearls or copper. This treatment considerably heightens the life-like effect of the animals. Traces of red

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1 The greatest number of pipes were found at two major Ohio sites—the Tremper Mound and Mound City Group. At the latter site, the majority were found by E. Squier and E. Davis during the first half of the nineteenth century. These archaeologists later sold their collection to England, where they are presently housed at the Blackmore Museum.

2 Foster, 1873, p. 37. The author illustrates a human effigy pipe of the platform type, reportedly found in the Goodell Mounds, La Porte, Indiana. Depicting a seated nude female figure, it was destroyed by the finder who considered it obscene. A conjectural cast made of the pipe is in the Grand Rapids Museum, Michigan.
pigment rubbed on the head, shoulders and body feathers, survive on the surfaces of several bird specimens.¹

These effigies have been generally planned and carved in symmetrical terms. A line drawn longitudinally down the center of the figure divides it into two-congruent parts, the extremities and incised details assuming identical positions on either side of the body. Characteristic of this type are smooth surface planes which easily flow into one another subtly suggesting volume rather than bony structure. To obtain the desired effect there is a complete utilization of sculptural means. This is apparent in the incised technique and modeling that ranges from low relief to a free-standing rendering of the parts. Incision is used to an extraordinary degree with a complete mastery of technique. Furthermore, the anatomical parts of the animals are carefully shaped depicting their nature and structure, as for example, in the treatment of the fleshy and feathered surfaces fullness of body and muscle groups of the legs. Several pipes, carved in an open three-dimensional design, are imbued with a natural animation and sense of movement with the head and tail sections daringly projecting into space.

¹ In several instances where the pipes had broken while in use they were skillfully repaired by boring one or two holes in each piece, inserting dowels and securely joining the two pieces together. Occasionally, thin copper bands were wrapped around the break.
These numerous carvings of type B are a mature expression of the prevailing naturalistic attitude in which forms and proportions of the figures are endowed with ability and assurance to form a stylistically consistent whole.

Two styles are readily discernible among this group of carvings.

**Style 1**

A penetrating naturalism of form is characteristic of this style. It is generally restricted to the carvings of varied species of birds, all of which are easily identifiable. Since they are all depicted as standing with the legs modeled in relief on both sides of the bowl, the upper part of the body projects into space. By a rational integration of the form the sculptor successfully represents the animal as a living creature. Overlapping anatomical parts, such as the large wings, are delineated with considerable understanding and sensitivity.

A precise handling of lightly incised lines cover the entire figure. These incisions display an order and regularity as well as a sensitivity of design. They are depicted in detail by established conventions. These include straight and diagonal lines, scale-like patterns, chevrons and a single scalloped line on the front of the large wing. Facial markings are represented by two motifs. One consists
of two parallel bands extending across the top of the head, while the other motif is described by a line that extends from the forehead, curves across the face beneath the eye and swings downward to encircle the upper part of the breast.

By means of this incised technique the various anatomical areas are convincingly separated and such features as the tail and feather markings are intricately described. A remarkable feature of these figures is the striking impression conveyed by the differently textured hard and soft feathers. This is attained by varying depths of incisions with the prominent feather groupings broadly and deeply treated, whereas, the delicate surface elements display an extreme lightness of touch.

The most striking example of this style is the Hawk, (Pl. XII, fig.21), from the Tremper Mound. It stands poised and partly attached to the round straight-sided bowl with the tobacco chamber carved through the back of the shoulders. The narrow platform is concave in the center with the front end (smoke hole) straight and the rear slightly rounded. traces of red pigment survive that were rubbed into the incised lines of the head and feathered areas of the body.

Typical of the style are refined modeled surface planes that subtly merge into one another emphasizing the thick neck, haunched shoulders and tapering volume of the
fig. 21. Effigy platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
tail. A sensitively undercut ridge marks the two folded wings flowing back to the tail feathers. The ovoid head with inlaid copper eyes bears a heavy cone-shaped beak with the characteristic division and notched end. The planes of the body smoothly merge with the legs which are strongly shown in relief on both sides of the bowl. They are depicted as sharply curvilinear shapes, articulated at the joints and projecting forward, with the claws solidly planted on the platform. In other specimens the legs are merely round convex shapes not as sharply demarked from the sides of the bowl. The claws form an interesting pattern, with the interior parts meeting in the center and the nails of the longer exterior parts nicely curving inward.

Distinctive of the style is the textural quality of the delicate feather markings expressed in a finely incised manner. The groupings on the body are differentiated from each other by an all-over vocabulary of incised details, such as, chevron markings on the underside of the body and legs, and the scale-like pattern along the neck bordered by the parallel series of diagonal lines leading to the tail. The two typical motifs are present on the head, namely the two bands extending backward across the top of the head and the curvilinear design flowing from the face around the breast.

Assuming a position typical of this style is the Crow from Mound City, (Pl. XIII, fig. 22). The figure's
fig. 22. Effigy platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
individual character is depicted by the long heavy curved
beak which is divided by a deeply incised line, the care-
fully modeled head, and long tapering body. The integra-
tion of the bird with the bowl is strengthened by the curve
on the underside of the bill and neck which flows uninter-
ruptedly into the front side of the bowl. The legs are also
carved in relief on both sides of the bowl with the claws
delineated at the sides rather than meeting in the center
of the platform, as in the Hawk, (Pl. XII, fig. 21). The
diagonal position of the limbs imbues the figure with a
forward movement into space. Balance is achieved by the
extension of the head and beak, counterbalanced by the back-
ward projection of the body, with the bowl almost equally
spaced.

The textural treatment of the incised details are
skillfully shown, displaying a high technical skill on the
part of the sculptor. This is apparent in the series of
finely incised lines on the upper part of the beak extend-
ing downward from the eyes. They are very closely spaced,
straight, and extremely sensitive in treatment. This treat-
ment is restricted to several species of birds, as for
example, the Owl, (Pl. XVI, fig. 25) illustrates the marked
ability of the sculptor to realistically record what he
sees.

The soft light feathers on the body are shown by the
limited scale-like pattern which extends down the center of the back, also at the front of the shoulders, and on the sides of the legs. The harder more pronounced feathered groupings are deeply defined and extend in horizontal rows from the shoulders to the tail. This undercutting forms slight ridges on the surfaces, but they remain subordinate to the rounded shape of the body. Chevron markings, common in the Hawk (Pl. XII, fig. 21), are noticeably absent in the Crow.

This carving is closely related to that of the Hawk, evident in the openness of the design, undercutting, incised details though not as lightly incised on the body, and a nicely curved platform with the bowl placed slightly off-center.

An interesting variation in treatment is the smaller carving of the Paroquet (Pl. XIV, fig. 23) with his head inquisitively cocked facing away from the smoker. This upward oblique twist is an extremely naturalistic portrayal of the sculptor's acute observation. Furthermore, it breaks the planear quality of the form by directing the eye backward and upward into space.

As in the preceding figures, the legs are modeled in relief on both sides of the bowl with the claws delineated on the platform. The wings are similarly undercut, as in the Hawk (Pl. XII, fig. 21) and folded back against the body. A curvilinear line, conforming to the
fig. 23. Effigy platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
turning of the body, marks the neck from the body with the feathers beginning at this point. The markings conform to the basic vocabulary of incised chevrons, scalloped and straight line arrangements. They are not, however, as finely or profusely treated as those on the Hawk. A similar chevron pattern along the underside of the body and on the legs is apparent in this figure, as well as the semi-circular line which demarks the legs from the body.

Although generally governed by the stylistic traditions of the culture, technical variations within the styles appear in the carvings. Here, for instance, the body of the Paroquet is more compact and rigid than that of the Hawk (Pl. XII, fig. 21) or Crow (Pl. XIII, fig. 22). This results from such parts as the body, tail and legs, which are not as subtly integrated, gracefully tapering, or sharply defined as the latter figures.

A boldly carved figure characteristic of this style is the Great Blue Heron from the Tremper Mound (Pl. XV, fig. 24). Standing with his sharply flexed legs carved in relief on either side of the supporting bowl, he is carefully bending over eating a fish. The latter, delineated in very low relief, is simply described with rounded body and narrow rectangular tail. The height of the bowl surpasses those in the previous specimens to conform to the long legs of the bird.
fig. 24. Effigy platform pipe, pipestone, Tremper mound, Ohio; Ohio State Museum, Columbus, Ohio
The openness of the design is daringly conceived and naturalistically rendered. The bony structure of the head is subtly integrated with the graceful curved arch of the cylindrical neck, which lucidly merges with the expanded volume of the body. The characteristic attempt of the sculptor to attain a fluid continuity of form is apparent in the sinuous contour, formed by the line extending backwards from the beak and around the body, ending at the tail. This curve is echoed by the concavity of the narrow platform. Smooth surface planes flow around the form and give a unity to the entire figure through the integrated movement. The subtly undercut wings are folded close against the body overlapping at the tail. Incised details of straight and scalloped lines are restricted to the main wing feathers while the incisions along the underside of the body are, unfortunately, partly obliterated. Other typical features common in the preceding figures include the beak, divided in the center and demarked from the body by an incised line, and the eyes inlaid with pearls.

This is a remarkable carved piece contrasting with the other effigies by the openness of the design. The modeling of the form is based on the sensitive rhythmical harmony of forms and surfaces. The sculptor successfully carved the component elements of the form in a complete unity combined with a dominant concern for surface planes, undercutting, and incisions that identify the effigy. The
monumental quality of the carving belies its relatively small size.

The most elaborate and meticulously carved figure of this group is the striking rendering of the Great Horned Owl (Pl. XVI, fig. 25). The body serves as the bowl of the effigy with the tobacco chamber carved downward through the back of the shoulders. Emerging from the haunched volume of the shoulders and accented by the cast shadow, is the forward inclination of the solid head tapering to a broad pointed beak. As in the Crow (Pl. XIII, fig. 22), a series of finely incised, closely spaced lines extend from the eye alongside the beak. Accenting the round head are two low parallel ridges ending at the bowl opening. The prominent large circular eyes are deeply undercut rather than shown by cavities containing inlaid materials, as in the previous specimens. Widely spaced claws, protruding from beneath the body, are depicted in low relief on the platform.

The bodily structure is implied by the low overlapping planes and complex pattern of incised lines. The sculptor's command of the incised technique is clearly portrayed in the feathered markings. The full range of the common motifs of straight lines, chevrons and scale patterns distinguish the different textures. These variegated types of feather groupings were carefully studied and recorded by the contrasting line motifs. Although the surface is relatively
Fig. 25. Effigy platform pipe, pipestone, Tremper Round, Ohio; Ohio State Museum, Columbus, Ohio
smooth, overlapping parts are undercut in very low ridges as also observed on the carvings of the Crow (Pl. XIII, fig. 22). This is one of the most intricate and successfully carved pipes of style 1, depicting the masterful skill and achievement of the Hopewelian sculptors.

The amazing versatility and creative ability of these artists is apparent in the effigy of a Box Turtle (Pl. XVII, fig. 26). The perfectly balanced form is carved on the top of the bowl in a typical pose, seated upon a rock and contained within his protective shell. The bowl bears the characteristic undulating shape with the large circular tobacco chamber drilled through the effigy's back. The surface of the platform is bevelled along the sides forming a central ridge that conforms to the curved concavity of the base.

Partly protruding at the front of the turtle is the ovoid head protectively surrounded by a fleshy ridge of skin, with light undercutting and incisions suggesting the body. A similarly treated area appears at the rear with the tail concealed inside. Incised lines depict the mouth while the eyes are shown by two minute punctates. The hard textural quality of the protective shell is successfully conveyed by the smooth bevelled surface and simple incised line pattern. This pattern, which depicts the character of the shell, consists of a concentric circle and a series of
fig. 26. Effigy platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
straight and diagonal lines. The detailed and intricate treatment of undercutting and incisions of the fleshy and hard surface areas conforms to style.

This highly life-like carving emphasizes the artists' understanding and profound insight into the habits and life of all animals inhabiting the region of the Ohio Valley. This characteristic trait of the art will be further illustrated by the carvings of style 2.

Transitional to style 2 are the birds carved with only the head and neck (Pl. XVIII, figs. 27, 28). This group of pipes, exemplified by two examples, display some characteristics of the latter style, as the unusually solid, heavy forms with broadly modeled planes. Although these figures do not conform to the well-rounded treatment of the preceding complete bird forms accented by an intricate incised technique, their consistent underlying naturalistic concern makes them readily identifiable. This is apparent, for instance, by the Wood Duck (Pl. XVIII, fig. 27) with such typical features as the prominent crest undercut in relief across the top of the head and the long round tapering beak flattened along the upper edge. The other figure of the American Crow (Pl. XVIII, fig. 28) is identified by the solid head and heavy pointed beak divided by two corresponding grooves. The series of finely incised straight lines along the sides of the beak are reminiscent in treat-
fig. 27. Effigy platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio

fig. 28. Effigy platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
ment to the Crow (Pl. XIII, fig. 22) and Horned Owl, (Pl. XVI, fig. 25).

The small size of these effigies supported on a relatively narrow curved platform, are basically carved with the broad solid features of style 2, yet retaining some of the detailed concern of style 1; therefore, they provide a transitional introduction to the next stylistic group.

**Style 2**

In contrast to the intricately carved and detailed bird figures of the preceding style, this group of animals are modeled with broadly shifting planes. Frequently depicting mammals, as the dog, otter, raccoon, etc., they are conceived as rounded full substantial forms displaying a limited amount of detail and accented by highly polished surfaces. The ample fleshy parts are naturalistically integrated conveying the feeling of an interior bony structure. There is a greater feeling for movement and action of the figure contrasted with the stationary attachment of the preceding group of birds (style 1) to the bowl. The carvings ranges from a delicate low to a bold high relief. The legs are modeled as free-standing forms rather than in relief on both sides of the bowl. Compressed beneath the body, the bowl is never completely concealed. Incisions used to a very limited extent, are simply restricted to the head. These are more deeply incised than in style 1,
occasionally becoming grooves and ridges. On several effigies there is a facial design similar to those on the former group of birds. Here it begins along the upper part of the snout and curves in a loop-like shape beneath the eye, finally swinging downward to encircle the breast. In contrast to the figures of style 1, the eyes of these effigies are relatively small in size, but also usually inlaid with foreign materials.

One of the most impressive carvings of this style is the Seated Frog from Mound City (Pl. XIX, fig. 29). The nature and characteristics of the creature are expressively carved in its inimitable half-crouching, half seated motionless position, partly concealing the bowl beneath the neck. The downward weight of the squat body, emphasized by the gentle swelling stomach, is easily supported by the front legs. Particular care was taken to define the joints and muscular structure of the legs, in as much as they turn outwards, whereas the feet are turned inwards and sharply delineated in relief. The sensitively modelled surface combines the component elements of the form in a complete unity.

Imperceptively joined to the body is the finely carved head with rounded tapering face. The bony structure of the shoulders emerging from the back of the head are carved in high relief. Both powerful rear legs are identically treated in a flexed curvilinear fashion held close
fig. 29. Effigy platform pipe, pipestone, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio
to the body. They spring outward from a lower point at the base into two large ovoid forms. No incised details are apparent on the figure, but the facial features are described in low relief. These include large circular eyes, with shallow depressions for inlay materials, and bordered with fleshy lids. In addition, two low ridges, extending in a straight line from the nose, enframe each side of the face, and followed by two protuberances behind the shoulders. Constant in this style are the highly polished surfaces, which here suggests the glistening quality of the skin.

An important feature of this style is the strong plastic construction of the effigy. It is achieved by very sensitive skillfully modeled surface planes that depict with complete sureness both the bony structure and fleshy parts.

Another example of this style is the robust carving of the Otter (Pl. XX, fig. 30) carrying a fish securely clenched between its jaws. It stands near the center of the narrow curved based platform, the bowl compressed beneath the body and connected with the chamber cut through its back. The heavy head is supported by a muscular neck with haunched up body sharply tapering towards a narrow tail delineated in relief. Modeled in the round are both the short substantial forelegs extending from the shoulder and the easily flexed hind legs. The torso is a long rounded form with a broad chest and large smooth surfaces that
fig. 30. Effigy platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
emphasize the ample fleshy structure. The head is defined by short teat-like projections that mark the ears, with the facial features such as, the nose and cheeks, briefly modeled and outlined by deep incisions. Small shallow depressions, almost indiscernible, represent the eyes. The differently textured furs on the face are divided by a curvilinear motif similar to those on the birds of style 1, (Pl. XII, fig. 21; Pl. XIV, fig. 23). This line motif begins at the mouth, curves in a loop-like shape beneath the eyes to finally encircle the breast. In contrast to the birds of style 1, no incised details are evident on the body. The surface is remarkably smooth and highly polished.

This carving is a spirited, vigorous portrayal of the effigy in a three-dimensional technique, with an expressive handling of the simplified anatomical parts.

Broadly treated smooth surfaced planes characteristic of style 2 are reflected in this carving of a seated Dog with head upraised as if howling or baying at the moon, (Pl. XXI, fig. 31). The tobacco chamber is cut through the back of the animal and extends to the platform marked by the unusual thickening of the animal's body at the stomach. Incised details on the figure are restricted to the outlining of the ovoid eyes and the delineation of the hindlegs. This prominent handling of the eye recalls the treatment of the eye in the Great Horned Owl of style 1, (Pl. XVI, fig. 25), but it is the only feature these two effigies share in
fig. 31. Effigy platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
common. As in the example of the Otter (Pl. XX, fig. 30) two teat-shaped forms represent the ears. An animated expression is imparted by the upraised head with partly open mouth, and continued along the rear part of the snout by undercut grooves. Rounded moving planes flow downward from the lower jaw around the head and neck, expanding at the breadth of the shoulders to the flexed hindlegs which bulge outward in high relief. A low ridge between the shoulders naturalistically describes the anatomical integration of the neck with the body.

Tapering from the muscular shoulders are the front legs separated from each other and the body by a void which serves to break the compactness of the form. This open design is repeated by the large circular tail curving around to meet the body. It is a well-designed element and harmoniously merges with the hindlegs in a rhythmical curvilinear line. The tail, furthermore, counterbalances the projection of the head into space and alleviates the line of the back which falls diagonally downward from the bowl.

The full rounded muscular parts of this figure are smoothly integrated in an animated unified whole, similar in treatment to the figure of the Otter. Moreover, both effigies, as common in this style, are highly polished with no use of incisions on the surface.

Conforming to style 2 and closely related to the Dog (Pl. XXI, fig. 31) is the seated Raccoon with his left
foot apparently placed in a crawfish hole (Pl. XXII, fig. 32). To accommodate this pose, the body naturally leans forward with the front legs extended and individually modeled in the round. Cut through the center of the effigy's back, the tobacco chamber is marked by the thickening beneath the stomach, akin to the treatment of the Dog.

The relationship between these two figures is heightened by the essential structural forms rendered in rounded broadly conceived planes as they flow around the body. Other common elements include the deeply incised line which depicts the flexed hindlegs, both identically handled; teat-shaped features as the nose, straight mouth, and typical line motif curving across the face. There is a minor distinction between them in the treatment of the eyes. Here they are set with copper, rather than incised in ovoid shapes as on the Dog.

The solid structural head is accented by a cast shadow caused by the contracted modeling of the neck. The rounded undercut stomach emphasizes the volume of the supporting members, as the shoulders and hindlegs. The firm curving contour of the back gently slopes away from the bowl terminating in the extended tail carved in relief on the platform. This intense concern with a naturalistic attitude is apparent by the detailed rendering of the crawfish hole, with mud pellet-like forms distinctly carved.
fig. 32. Effigy platform pipe, pipestone, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
around the opening.

This is a solid, compact, well-conceived carving impregnated with a life-like sense of animation. In particular, it is stylistically related to the figure of the Dog, (Pl. XXI, fig. 31) and Otter (Pl. XX, fig. 30); for instance, the small size, negligible use of incisions, and substantial, rounded, broadly rendered planes integrated in a unified form, and the whole emphasized by the highly polished surfaces.

Only several effigy platform pipes of Type B have been found at other Hopewellian centers. They are obviously related to the Ohio pieces, particularly style 2, in size, design, shape and proportion. Although generally carved from a single piece of stone, they are neither modeled with the penetrating naturalism of the latter, nor project into space as a living being with equal effectiveness. Incisions are noticeably absent and there is not that characteristic range from a delicate low to a bold high relief. When compared with the Ohio pipes, these few examples from marginal areas display a similarity of design, lack of versatility, expressiveness, and skill which strongly suggests that the sculptural influence spread outward from Ohio to these other areas.

Illinois

Four effigy pipes were found at the Wilson site,
Illinois, conforming to type 2 of the Ohio Hopewell. Carved from sandstone, pipestone and calcite, the figures except for one, are depicted on a platform with a thick rounded base in contrast to the uniformly narrow Ohio type. The eyes are shown as drilled cavities or inlaid with copper, while file markings are occasionally present on the surfaces. In one specimen the incised facial design is identical to those on the Ohio effigies of style 2.

Carved from red sandstone is a Bird effigy standing on a thick platform base (Pl. XXIII, fig. 33). There is no indication of legs or claws on the bowl or platform. Crude ly carved, the effigy appears as an idea of a bird rather than a specific species, common in Ohio sculpture. No clear identification is possible due to its generalized treatment. The parts are broadly depicted, as the head with large pointed beak, wings with no indication of their actual shape, and tail projecting sharply downward from the bowl opening and not integrated with the body. When compared with the bird effigies of style 1, this work falls far short of the high level reached by the Ohio sculptors.

Generally transitional in style is the Duck effigy compactly carved from a single piece of calcite (Pl. XXIV, fig. 34). The narrow curved platform is identical to those Wadlow, 1952, p. 7. A frog effigy pipe was found at the Snyder's site, Illinois, carved from limestone. Stylistically, its summary treatment is closely affiliated with the above pipes from the Wilson site.
from Ohio. This resemblance between the two regions is heightened by the position of the bird with his legs indicated on both sides of the bowl and feet undercut in low ridges on the platform. In addition, the round bowl is relatively high with straight sides as observed on the bird effigies from Ohio.

The generalized treatment of the effigy is due, in part, to the selection of a less plastic material. Nevertheless, the fullness of the form, its projection into space, the balance of parts, and the highly smoothed surface is related to style 2 of the Ohio pipes. There is little indication of individual anatomical parts in this compact carving except for some undercutting behind the head, along the beak and striations on the webbed feet.

Two admirable carvings similar to the Ohio pipes of style 2 were made from pipestone. The most closely related example is the Otter restricted to the head and neck, (Pl. XXV, fig. 35), which can be successfully compared with the Otter from the Tremper Mound (Pl. XX, fig. 30). This is apparent by the full rounded form of the body, the projecting head, graceful inward curve of the neck and well rounded head with imbues the figure with a life-like quality. In both this example and the one from Ohio, incisions are restricted to the head with identical common facial markings, as the line curving from the snout below the eyes and broadly swinging to encircle the breast. Moreover, the eyes are
similarly small in size and inlaid with copper, while the ears are represented by the typical teat-shaped elements observed also on the Dog and Raccoon. The fleshy neck and breast convey the feeling of an underlying structure, and combined with the smoothly integrated parts, compares equally well with the Ohio specimen.

Another example related to this style is the figure of a Bear also limited to the upper part of the figure, (Pl. XXVI, fig. 36). In contrast to the previous pipe the eyes consist of large circular cavities inlaid with copper, while file marks are clearly observed on the front legs. The ears are represented by unusually large teat-shaped forms. This is a skillful carving with the features and parts marked by undercutting and relief. The fleshy muscular parts of the neck and shoulders are carefully modeled, and the surface characteristically is very highly polished.

A unique pipe was found at the Hann site in Louisiana, (Pl. XXVII, figs. 37a, b). Carved from black steatite, it represents a seated feline, possibly a jaguar or ocelot. Transitional in design, it is essentially a free-standing figure reminiscent to type 3, but differing from it by the short flat platform at one end continued as an extended part of the underside of the figure. The body serves as the tobacco chamber with the hole cut through the center of the back. The figure is elaborated by circular and linear depressions drilled and gouged out on both sides of the
fig. 37. Effigy platform pipe, steatite, Mann Site, Indiana; Collection Mr. C. Stone, Peoria, Illinois
body, perhaps representing naturalistic spots or stripes. Filing marks are clearly observed on the surface recalling those on the preceding Illinois specimens.

The figure is severely carved with a smooth highly polished surface. The head projecting forward into space is carefully modeled with cavities for the eyes, a partly open mouth, full cheeks, and delineated ears and nose. Muscular shoulders and hind quarters are prominently treated in high relief against the body. The front legs are individually modeled in the round with the claws deeply undercut. In a bottom view one can see their completely flat surface with the pads deeply incised.

An interesting relationship can be made between this specimen and the so-called Ocelot carved on bone found at the Hopewell Mound Group (Pl. CII, fig. 127). The heads of both figures are shown as broad shapes with large eyes and partly open mouth. Furthermore, circular and linear markings, in combination, appear on the surface. These unusual features seem to suggest some relationship between the specimens.  

**Louisiana**

The only recorded effigy pipe from Louisiana was found at the Crooks site (Pl. XXVIII, fig. 38). Modeled

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1 Ford, 1940, p. 81. An object found at this Crooks site is strikingly similar in shape and design to the claws and central pad of the legs of this feline. Heretofore, unidentifiable, it may possibly represent another form, but its peculiar design strongly suggests some relationship.
fig. 38. Effigy platform pipe, clay, Crooks Site, Louisiana; Louisiana State University, Louisiana
from clay the identification is not clear but it probably represents a bear or other four footed animal. This question is complicated by the broken upper part of the snout which apparently was not satisfactorily restored as it seems disconnected from the head.

The figure is closely related to the previous specimens from Ohio of style 2. This is evident in various features, such as the design of the complete animal in a seated position above the bowl, with the tobacco chamber in the center of the back and the whole supported by a relatively narrow concave platform. This relationship is accentuated by the modeling of the flexed extremities in high relief. The wide spread of the front legs supporting the weight, and the general squatness of the figure recalls the Seated Frog from Mound City, (Pl. XIX, fig. 29). The absence of incisions on the surface may be due to the softness of the clay material. Although similar in size and design to these Ohio pipes, the figure is not as full and substantial. This is evident in the profile view where the torso is disproportionately narrow and thin, imparting an awkward shape to the shoulders. This pipe, however, illustrates an obvious influence from the Ohio region.

Type C

The third type of Hopewellian effigy platform pipes is defined by a modified tube with the effigy heads either
carved at one or both ends. The characteristic bowl, of Type A, with undulating profile shape rises from the center. These pipes are generally represented among the largest such carvings in size and weight. Many, therefore, probably necessitated an additional stem for smoking, while others may have possessed some ceremonial significance and were smoked under prescribed conditions. They are carved from a harder black steatite material, rather than the common soft pipestone, and range in length from about six to over ten inches.

In contrast to the more sensitive and delicate treatment of the preceding types of effigy pipes, the planes of these specimens were more broadly conceived. The anatomical parts are described by undercutting with incisions used to a very limited extent, usually for the facial features. The predominant naturalistic concern, however, persists in the rendering of the heads with prominent eyes and sensitively modeled facial planes clearly depicted.

An example of this style is the so-called "Goose Pipe" found at the Hopewell Mound Group, (Pl. XXIX, fig. 39). Entwined about the almost "S" shaped bowl are the long serpentine necks of the two geese with the heads emerging at both ends of the platform. The exaggerated expanding shape of the bowl admirably accommodates the wide swing of the neck. Actually, the neck of the goose at the left imperceptively merges with the volume of the bowl, while
fig. 39. Effigy pipe, steatite, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
that of the other figure slopes downward from beneath the former. The tubular platform is carved as passing through the open mouths with the hole at the right end.

The naturalistic concern on the part of the sculptor is evident in the rounded sensitively modeled heads. The smooth subtly rounded structure flows in an undulating curve around the face interpreting the swelling elasticity of the mouths strained by the swallowing action. Facial details are finely and convincingly incised, but restricted only to the essential elements, with feather markings nonexistent. The open ovoid eyes are surrounded by two concentrically incised lines of the lids. A round scalloped border delineates the beak with the characteristic ridges and depressions along the sides, front and on the surface, which heighten the naturalistic effect. A low ridge extends from the base of the beak backward across the top of the head, stopping at the incised line which runs from the corner of each eye around the back of the head.

Again one observes the intimate understanding and feeling for animal life. Here, there is continued the careful study of the actual forms of the animals. The structure of the head is perfectly understood and stated with extreme concision and simplicity, but also with such a delicate sensibility that one never feels the emptiness of a deliberate and conscious schematization. The carving
retains the fullness and unexpectedness of nature.

Larger and more massively treated than the preceding example is this Wolf pipe from Ross County, Ohio (Pl. XXX, fig. 40).\(^1\) It is transitional in style with the full rounded head at one end, the tubular platform serving as the body, and the essential anatomical parts described in low relief. The inhaling hole is at the tail end of the effigy, while the characteristic undulating-shaped bowl rises in the center. The bowl is more rigidly shaped than in the former example, as it tapers from the rim to an incised line which marks the limited expansion of the base of the chamber. This particular treatment has been observed as common to the plain bowl platform pipes of type A from the Hopewell Mound Group, in Ross County.

Attention is focused on the head, naturalistically carved in the round, and divided from the body by an incised line at the neck. The sensitively modeled planes slope forward from the rounded head to a tapering snout. Two teat-shaped forms represent the ears, recalling similar elements on the effigies of the second type, as the Dog and Otter. The slightly bulbous nose and straight mouth are described by incisions. Cavities originally containing

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\(^1\) Personal communication, Feb. 1953. Raymond S. Baby, Curator of Archaeology, The Ohio State Museum. "This pipe was found on the Nathaniel Massey farm, near Bainbridge, Ohio, by A. C. West."
fig. 40. Effigy pipe, steatite, Ross County, Ohio; Ohio State Museum, Columbus, Ohio
inlay materials serve as the eyes, while the protruding brows above are delicately denoted by smooth gentle ridges.

The body of the wolf is non-existent, rather implied on the tubular platform. The bodily extremities were model-ed in relief by undercutting the platform. Both pairs of legs are flexed and articulated at the joints, with the paws delineated by incised lines. Although disproportionate in size, the vital importance of these legs was emphasized by the sculptor. The front legs and feet are attached to the body, whereas, the hind quarters are placed beneath, near the underside of the platform. This variation alleviates, somewhat, the otherwise rigid design. Along the top of the platform the straight ridge of the tail tapers to the end.

This type of effigy pipe is relatively rare at both the Ohio and other Hopewellian sites. Stylistically, these two examples are closely related to each other and also to preceding types from Ohio. For instance, the shape of the bowl is similar to type A, while the broadly handled planes with limited use of surface detail, conforms to style 2 of the second type. Furthermore, the high degree of technical skill and ability of this pipe is consistent with the style of Ohio Hopewellian sculpture.

Type D

This type is illustrated by only one specimen found at the Hopewell Mound Group. Identified by the two carved
effigies, it depicts a spoonbill duck seated upon the back of a large fish, (Pl. XXXI, fig. 41).\(^1\) The bowl is cut into the back of the duck extending downward into the fish with the smoke hole emerging at the mouth. Transitional in style to types B and C, it is related to the former group in size and proportion. Probably pearls were originally inserted into the shallow eye cavities of both creatures.

The pipe is carved from one piece of fired clay in a remarkable open design. Seated atop the tubular body of the fish is the round substantial body of the duck. Except for the eyes, the head is perfectly plain and smoothed. As in the examples of type B, the large wings are folded close against the body and undercut. Incisions are restricted to reserved areas. For instance, feather markings are comparably simplified and delineated in the common pattern of straight and diagonal parallel lines. There is not the profuseness of detail on those bird pipes belonging to style 1 type B.

The generalized structure and details of the fish make a positive identification impossible. Bodily features of the gills, fins and facial markings are modeled in low relief or ridges and covered with a series of parallel lines. The large tail stylistically curves upward, repeating the

\(^1\) Before the pipe had been deposited in the mound the duck's bill had broken into two pieces. It was ingeniously mended by boring a hole into the head through the remaining beak section, a corresponding hole made in the other fragment, and the two dowled together.
fig. 41. Effigy pipe, steatite, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
downward direction of the duck's beak, and elaborated by an incised series of vertical lines.

This carving is a masterly transposition of natural forms into a perfectly understood plastic idea, with an extraordinary continuity of organization. The daring openness of the three-dimensional design is successfully achieved and enhanced by the curvilinear contours flowing around the body of the duck. The small size and high technical craftsmanship of the pipe, inlaid eyes, clean cut detail and sureness of modeling are features of the Ohio Hopewell art style.

**Type E**

The last type of effigy pipes are carved as free-standing figures, with the tobacco chamber carved through the back of the animal and usually centrally placed. These are the largest group of such specimens, ranging in length from seven to over twelve inches. The circular rim of the bowl is depicted by large straight sides with the interior channel continued through the body of the animal, emerging at the head or tail. The pronounced size and weight of these examples would necessitate an additional stem for smoking, unless they were utilized in another manner. The eyes are marked by cavities and probably were originally inlaid, though there is no definite evidence. The surfaces are roughly treated, with tool marks clearly indicated.

Stylistically, the figures are more rigidly carved than those of the preceding types. The planes are broadly
and angularly modeled in a block-like character, with a comparatively limited naturalistic concern. These unusual features are evident in a comparison of the two canine pipes, (Pl. XXXII, figs. 42-43) with the barking Dog of type B, (Pl. XXI, fig. 31). In the latter example, the well rounded body naturalistically proportioned with a sensitive integration of parts, is conspicuously absent in these larger pipes. For instance, in this effigy the extremities are angularly formed with the shoulders stylistically undercut on the body, while in the other figure (Pl. XXXII, fig. 43) the rear legs are disproportionately enlarged. The tobacco chamber is a prominent element, whereas in the smaller pipes of type B, it is simply carved through the body of the effigy and not marked by a rim. Moreover, minor differences appear between them, such as, enlarged ears instead of common teat-shaped elements of style 2, and the mouth shown as partly open by undercutting along the sides, with the teeth incised on the surface. An interesting point of relationship between them, however, is in the pierced circular tail, identical in all three figures.

There is a general resemblance between the form of the Wolfe (Pl. XXXII, fig. 44) and the example of type C (Pl. XXX, fig. 40). In both the head is at one end, with the tubular platform serving as the body, and the bowl at
fig. 42. Effigy pipe, steatite, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
fig. 43. Effigy pipe, steatite, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
fig. 44. Effigy pipe, steatite, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
the top. The body of the former is generalized in treatment without the encircling line marking the head from the body as in the other. Furthermore, the features of the larger pipe are more crudely modeled with no indication, of such features as the ridge above the eyes, subtle delineation of the nose, or undercutting of the mouth. Only the front legs are carved in relief and depicted with a sharp articulation of the joints. No other parts of the body are shown, leaving the carving in a relatively crude condition.

In the bird forms there is a greater naturalistic treatment. This conforms with the more detailed examples of such effigies throughout the sculpture of the Ohio Valley, particularly those of style 1, type B. Although these are also heavy block-like pieces without that careful integration of parts, as in the latter type, there is an attempt at an open design, as in the bird with the outspread wings (Pl. XXXIII, fig 45)\(^1\); also some concern for a life-like portrayal as in the incised details on the other figure (Pl. XXXIV, fig. 46). In this latter figure various anatomical parts and feathered groupings are indicated in low relief and emphasized by incisions. Large wing feathers are delineated in low ridges with the markings illustrating such common motifs as the scale like pattern, and straight and diagonal

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\(^1\)The lower part of the right wing had originally broken off, but was restored by the common Hopewellian method of drilling holes, inserting dowels, and attaching the two parts together. This is evident by the three in-line holes, however, the end section was missing at the time of excavation.
fig. 45. Effigy pipe, steatite, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
fig. 46. Effigy pipe, steatite, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
parallel lines. Even along the base the retracted claws are depicted by an incised technique in an interesting curvilinear pattern.

The other bird (Pl. XXXIII, fig. 45) is carved in the heavy style of this group with the geometric anatomical parts arranged in a series of ridges extending to the tail. Except for a series of fine lines along the inner edge of the complete wing, no incised details cover this surface.

These five pipes were probably made at another site and brought to Ohio. This theory is strengthened by their having been found in only one Hopewell Mound placed together in a single cache and moreover, their wide discrepancy from the Hopewell art style. They are large, heavy carvings crudely modeled in an angular, block-like style. Except for minor points of similarity, as cavities for the eyes, circular shape of the canine tail and the incised motifs of feathered groupings, they are foreign to the Hopewellian style. An interesting feature is the utilization of the latter method of restoration by holes and dowls in one of their pipes, that suggests the wide spread understanding of this technique.

Comparable examples of these pipes, however, can be found in the Tennessee-Cumberland region and more southern areas. They are more common in these latter regions and could have easily been acquired by the Ohio Hopewell peoples as a result of their far-flung trade relations.

Effigy pipes, found throughout the Hopewellian region,
are predominant in Ohio with examples of the five basic types. Of these, type B is the most characteristic. Defined by the features of accuracy and factual detail, they are combined with the expressive rendition of mass, governed by a rigid order with the scales and values fixed and variations from this norm restricted to a minimum. The sculptor has seized the main plastic relations with an extraordinary grip, evident in the structural forms and fleshy parts. He has felt the transition from one plane to another with extreme sensitiveness and stated them with a remarkable understanding and subtlety. The telling character of each specimen is effected by means of the pose emphasized by the disposition of weight and balanced proportions. The consequent suggestion of immediate, imminent typical movement, combined with this expressiveness, is in the most adequate examples, accompanied with a meticulous rendition of minutea with completes the startling impression of actuality. The assimilation of forms is complete. They are fully interpreted and transmuted into plastic terms.

The comparatively few specimens from other Hopewellian regions, comprising type B and one transitional example, exhibit obvious influence from Ohio. Although there is the same basic design, the realistic attempt is of a descriptive kind. There is no feeling of expression or inner life, while traces of plasticity in the handling have been largely polished away. It is descriptive and without the vital
rhythm of the essential internal particulars of the Ohio effigies.
HOLLOW EFFIGIES
Hollow effigies of class 2 are carved from several varieties of stone and bone. They are identified by a hollow interior carved upward through the base and a series of holes perforated into the cavity. These unusual features suggest that the carvings were meant to be attached to another form as a decorative addition or suspended by a string. Generally, they conform to the dimensions of the effigy pipes of type B averaging about four to five inches in length. Furthermore, they are closely related stylistically to these pipes. Anatomical parts are indicated by undercutting and incisions, while the eyes are shown by cavities meant to be inlaid with foreign materials. The vocabulary of incised details repeats the motifs on the pipes, with the addition of a cross-hatched technique.

Again there is no struggle with technique, the sculptor has full and easy command of everything. This is evident in the clear organization of the broad substantial bodies and integrated planes without any feeling of irregularity.

These carvings can be divided into three styles.

Style 1

Style 1 is marked by a distinct naturalistic concern reminiscent of the effigy pipes of type B. The body, however, is more rigidly rendered, sometimes almost stylized, with concentration focused on the carefully modeled head.
Many of these heads bear the same curvilinear facial markings of the effigy pipes (style 1). On the other hand, the body feathers are more rigidly depicted with the incisions extending more deeply into the surface, occasionally forming the parts in overlapping tiers.

Representative of this style is the hollow eagle found at the Hopewell Mound Group (Pl. XXXV, figs. 47a, b). Carved from the same Ohio pipestone material as the effigy pipes, the solid round head is integrated with a thick neck recalling the Hawk of style 1 (Pl. XII, fig. 21). Other naturalistic features shared in common are the characteristic facial markings consisting of two bands across the top of the head and the rhythmic curvilinear line along the face, and the large hooked beak divided into two parts by corresponding grooves on both sides. The modeling of the body however, is more rigidly formed without the fluid integration of planes common to similar effigy pipes of style 1. This is evident in the upper view where the wings jut out from the shoulder and continue into a wide tail. The feathered markings are sharply defined and arranged in low tiers. They are deeply delineated rather than described with the sensitively precise technique of the previous examples. The motifs are simply composed of only straight line arrangements with a brief scale-like pattern along the shoulders.

Strikingly similar in style to the above figure is
fig. 47. Hollow effigy, pipestone, Hopewell Round Group, Ohio; Ohio State Museum, Columbus, Ohio
the hollow bird carved from bone (Pl. XXXVI, fig. 48). It is a correspondingly full-bodied creature with the planes sensitively modeled and emphasized by the smooth surface finish. The relationship between these effigies is closely borne out by the shape of the form, and the rendering of the head and beak. In both, the head is fully rounded and flows into the thick neck. The beak is divided by a curving line running along the surface with the typical slight depression marking the notched end. Moreover, there are also two naturalistic depressions along the top in addition to an incised curvilinear line extending from the base around to meet at the top in front of these depressions.

The shape and sharp undercutting of the large wings with characteristic incised lines delineating the feather markings are almost identical in treatment to those of the above figure (Pl. XXXV, fig. 47). It is apparent, for instance, in the scalloped lines on the shoulder followed by the series of straight longitudinal lines that extend to the diagonal line near the tail. At this point, the feathers also run diagonally upward to the back where they are followed by the same series of lines extending to the end.

Although carved in a less plastic bone material, the bird is relatively homogeneous in size, shape, and design to the stone figure and illustrates the close relationship with style 1 of the effigy pipes.

A wonderfully skillful carving depicts a quadruped
fig. 48. Hollow effigy, bone, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
creature carrying a roseate spoonbill duck in its mouth, (Pl. XXXVII, fig. 49). The naturalistic intent typical of this style is evident in the body delineated by undercut ridges marking such features as the shoulders, encircling legs, claws, and curve of the stomach. The carefully formed head emerges from the smoothly finished neck, and slopes to a rounded snout and lower jaw. Low circular ridges representing the ears are similar to the prevalent teat-shaped forms on the effigy pipes of style 2.

The identifiable head and beak of the bird is shown by incised lines along the face of the quadruped. The design of the head consists of a circular eye and curvilinear dividing line between the head and beak, identical in style to the series of heads incised around the bowl of the platform pipe of type A, (Pl. VIII, fig. 12). The neck of the bird is incised along the front part of the quadruped, while the continuous outline of the body of the bird is indicated by the wider incised lines of the underside or within the cavity. The simplified curved wings are shown by low ridges centrally placed along the sides of the quadruped. Divided in the center, one part is decorated by cross-hatchings, while the other ends in a rounded scalloped shape. The tail bent upward at the end of the quadruped, is divided by three vertical grooves.

The carving successfully portrays two animal figures in an identifiable, meaningful combination affiliated with
fig. 49. Hollow effigy, bone, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
The tendency towards a more severe handling is reflected in the two typical small size bird effigies from the Seip Mound. Carved from steatite, they represent an Owl and Vulture. The former effigy (Pl. XXXVIII, fig. 50) is portrayed in a frontal pose with the feathered surfaces modeled in low ridges or tiers similar to the treatment of the Eagle (Pl. XXXVI, fig. 47). The frontal planes gently expand and contract, as in the sharp pointed projecting beak, undercut neck, and fullness of the breast, with the whole enhanced by the highly polished surfaces. The feather motifs are identical to the preceding figures of type B. They consist of straight line areas or ridges defined by undercutting and combined with a scale-like pattern of feathers below the shoulders. In contrast to this technique are the lightly incised facial details surrounding the eye region.

The figure of the Vulture (Pl. XXXIX, fig. 51) is shown with the underpart of the body simplified into a platform base, slightly extended at both ends. The lowered beak is attached at the front with a void between it and the body creating an open design. Folded back against the body, the large flat wings are marked by a longitudinal ridge where they meet at the top of the body. Emerging from the shoulders are the sensitively curved neck and rounded head ending in a long pointed beak. The form, as in the inte-
fig. 50. Hollow effigy, steatite, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
fig. 51. Hollow effigy, steatite, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
gration of the neck with the expanded volume of the shoulders is more angular and mechanically carved when compared with the smooth flowing planes of the former specimens of type B. The general naturalistic treatment and proportion, however, combined with the motifs of the feather markings, affiliate this figure with those of style 1.

An interesting variation in style is the bird effigy carved from serpentine stone (Pl. XL, fig. 52). Naturalistic in intent, it is somewhat distinct from the above examples, as the conventionalized body composed of six longitudinal convex ridges. There is no indication of essential parts, as wings, or incised details on the surface. Similar to the pipestone Eagle (Pl. XXXV, fig. 47) is the round modeled head with a large hooked beak divided by corresponding grooves on both sides. Incised facial details are reminiscent to those on the Eagle pipes (style 1) but more deeply incised. In these latter figures two corresponding bands extend across the top of the head, while a single line above the beak runs in a curvilinear fashion across the face, invariably avoids touching the eyes and continues around the neck. Here the two bands emerge above the eyes and curve backwards with a single line within the center, whereas the other motif begins at the frontal corner of the eye and connects with an identical incised line on the other side. Furthermore, as it drops below the eye, the design is marked
fig. 52. Hollow effigy, stone, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois

fig. 53. Hollow effigy, stone, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
by an undercut lower border disrupting the smooth surface finish.

Another example of this style is the stone carving of a Tadpole (Pl. XL, fig. 53). Attention is focused on the simplified rendering of the head contrast with the plain tubular body. Gills and mouth are lightly undercut and individually modeled in relief, while incised details are non-existent except for a faint line across the back of the head. The round smooth surfaced form displays a subtle modeling and integration of parts. Combined with such features as a summary use of careful undercutting and eye cavities inlaid with pearls affiliates this specimen to style 1.

Stylistically consistent is the interesting human thumb (Pl. XLI, fig. 54) carved from cannel coal. It differs from the other figures in that it is a solid piece containing no perforations and cleanly cut off at one end. Articulated at the joint, the thumb rounds out with the nail indicated by an encircling light undercutting and characteristic subtle modeling of the surrounding area. This example illustrates, in part, the wide variety of materials employed by the Hopewellian sculptors who seem to have utilized almost every available substance that could be worked.

**Style 2**

This style is based upon one specimen representing
fig. 54. Solid effigy, cannel coal, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
a duck (Pl. XLII, fig. 55). Stylistically modeled in a highly generalized shape with no surface incisions, it contrasts with the basic naturalism of the preceding style. The effigy is designed with the head and long bill reposing backward along the top of the body, with the eyes represented by a hollow channel drilled through the head. Essential parts are depicted as simplified rounded forms. The folded wings are sharply delineated below the neck and flow backward into a wide rounded tail. Above the flat base, the rounded convex body tapers to a point followed by the undercut tail. The wonderfully rounded head is sensitively integrated with the long bill in a curvilinear shape, while a longitudinal ridge extends from the head along the bill to the point of the body. In the upper view can best be observed the highly simplified, closely integrated bodily parts retained within a firm contour. Incised details are strikingly absent on the whole figure and combined with the stylized treatment suggest in this region a modified style contrasted from the predominant naturalistic concern of the former style.

Style 2

This style is marked by three carvings from the Turner Mound, distinctive by their fantastic, highly

1 Although found in the Seip Mound, it was not deposited together with the above Owl and Vulture figures found in the burnt offering. Instead it was associated with a burial some distance away.
fig. 55. Hollow effigy, steatite, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
imaginative character and imbued with an expressive treat-
ment. Although varying in size, shape and design, they
are bound by a commonality of elements. These include full
substantial bodies, clarity of parts, smoothly rounded
surfaces and prevalent use of incisions in a linear or cross-
hatched technique. There is an attempt to associate them
with serpent or reptile characteristic, seen in the notched
or winding tail and also facial features.

Representative of this style is the large heavy
effigy ten inches in length (Pl. XLIII, fig. 56, a,b,c).
Part horned serpent and part quadruped, this block-like
creature was carved from red slate.\footnote{1} The tail rattle
semble the horned serpent, while on the head above and below,
appear the typical reptilian plates. Unusual horns are
carved in relief along the side of the head with another
serparately carved pair inserted into drilled holes. Ident-
cical holes form the eye sockets and were probably originally
inlaid. The powerful open mouth is depressed and plain but
apparently was inlaid with some foreign material as canine
teeth, suggested by the two holes drilled upward into each
side of the forward portion of the upper jaw. Above, the

\footnote{1} Willoughby, 1935, pp. 280-6. The author states that
this figure is a representation of the great horned serpent
destroyed by Michabo, the Great Hare. The latter was the
Algonkian culture hero recognized as the highest deity,
powerful and beneficient beyond all others. "In his journey-
ings over the earth he destroyed many ferocious monsters of
land and water whose continued existence would have placed
the fate of the people in jeopardy. One of these monsters
was the Great horned Serpent."
fig. 56. Hollow effigy, stone, Turner Mound Group, Ohio; Peabody Museum, Cambridge, Mass.
nostrils are represented by two deep perforations bordered by a raised rim.

Flexed and held close against the body are the two pairs of muscular legs. Carved in high relief, they are subtly integrated with the body, while the claws are delineated by a narrow groove. Decorative incisions on the body accent the figure's peculiarities. They consist of three bands which run back from the shoulders, meet in the center of the back, separate as they approach the tail and finally curve around and end on the underside. Uniformly cross-hatched in treatment they conform to the symmetry of the body. Other incised details include a round scalloped design on the top of the head, a finely incised curvilinear design along the side of the lower jaw, and a series of parallel lines on the fleshy upper jaw.

The carving is stylistically affiliated by the highly imaginative concept with full substantial body and smooth polished surfaces that emphasize the integration of the parts.

Carved from red mica shist, the other object conforms to a long ovoid shape with slightly rounded convex surface (Pl. XLIV, fig. 57, a, b, c). The interior is equally hollowed out on all sides and comparatively thin walled, with the animal completely engraved on the surface. Identification is impossible due to the high degree of conventionalization. Symmetrical in plan, the parts are correspondingly disposed on either side of an implied central axis, while the schem-
fig. 57. Hollow effigy, stone, Turner Mound Group, Ohio; Peabody Museum, Cambridge, Mass.
atic body is harmoniously composed of full ovoid forms. The imaginative effect is increased by the incised decoration restricted solely to a cross-hatched treatment, as in the above figure. The design of joined circular eyes with graceful tapering ends is one of the favorite motifs of two dimensional engravings, and in that type sculpture may symbolically represent the same feature.

Smaller in size is the fish-like form carved from antler bone (Pl. XLV, fig. 58, a,b,c). Hollowed at the base from the head to tail, the walls are remarkably thin while a series of in-line holes appear on the body. It is a spirited and energetic carving conveyed by the curve of the bone, open mouth and large circular eyes. Attention is further directed to the head and tail by smoothed surface parts contrasting with the roughened body. The head is skillfully portrayed with rounded gills, perforated eyes accented by concentric incisions, shallow undercutting along the sides of the mouth, and stylization of the upper lip. Deep undercutting divides the serpent-like tail into sections, similar in treatment to that of the quadruped. Scales are simply indicated on the body by a series of arcs along the side, three lines on the back and parallel grooves on the underside.

This delicate figure illustrates the characteristic Hopewellian feature of adapting a technique common to stone or other materials.
Hollow effigies are prevalent in the Ohio region. Stylistically, they share several features in common with the effigy pipes of type B, but differ from them in the frequent deviations from a naturalistic norm, and the wide variety of materials employed. Although they conform to three broad stylistic divisions, individual variations of expression are readily apparent, as the unusual carvings from the Turner Mound. There is not that homogeneity of the effigy pipes, due in part, to the utilization of the forms for different purposes.

Stone is apparently basic to Hopewellian art, as objects carved from other materials tend to retain the character of the stone figures. The sensitive skill and aesthetic concern for the material is particularly evident in the delicate bone effigies.
HUMAN FIGURINES
Hopewelian human figurines are comparatively limited in distribution, having been found at only a few sites in the Eastern United States. The most important finds are the two groups of figurines from the Turner Mound Group in Ohio and the Knight Mound Group in Illinois. They were found deposited together within a single mound at each site, with several figures broken before and during the construction of the mound. Surviving examples depict both the male and female but differ in proportion; about four males and two females from Turner, whereas, at Knight there are four females and one male. Modeled in clay, these figures differ in size, proportion and design, but share several features in common. These include the treatment of the dress, coiffure, eyes and ear spools, which illustrate a general similarity in appearance.

Besides these groups three singular figures were found at two other sites. Although more crudely modeled from clay, they bear close stylistic affiliations to both of the above groups.

The figurines form two distinct styles.

Style 1

This style is distinguished by the comparatively intense naturalistic concern of the Turner figures from Ohio
Proportions are generally life-like with substantially modeled bodies and a sure understanding of anatomical structure. They are carved from a hard terra cotta which enabled the surface to be brought to a high polish. Comparatively large in size, they range from about three to over eight inches in height.

There is a feeling of simplicity and severity imbued in the style. This results in part from the consistent rigid symmetry with corresponding parts arranged on either side of an implied central axis. There is no deviation from this norm regardless of the position of the figures. They display a complete frontality in concept and uniformity of gesture and detail. Parts are carefully shaped with a logical rendering of the extremities and clarity of structural organization emphasized by the clear demarkation between the different parts of the body.

Traditionally, the figures are represented as clothed; the male with a brief loin cloth and the female enveloped in a knee-length skirt. These coverings were separately deposited in the burnt offering of the mound and covered with the large effigy of a serpent cut from mica (see Pl.LXXVII, fig.97). Perhaps the serpent possessed some magical potency which exerted some influence on the figurines. That the serpent was of notable importance at this site is apparent in the three hollow effigies also recovered in the area (Pl. XLIII-XLV).

The Ohio Hopewell people had a well developed weaving art. Cloth fragments display various techniques of plaiting of twining, with some occasionally painted with decorated designs. Thread was made from plant fibres and rabbit hair, and though there is no evidence, they may have possessed the simple loom.

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1 This group of figurines were deposited in the burnt offering of the mound and covered with the large effigy of a serpent cut from mica (see Pl.LXXVII, fig.97). Perhaps the serpent possessed some magical potency which exerted some influence on the figurines. That the serpent was of notable importance at this site is apparent in the three hollow effigies also recovered in the area (Pl. XLIII-XLV).

2 The Ohio Hopewell people had a well developed weaving art. Cloth fragments display various techniques of plaiting of twining, with some occasionally painted with decorated designs. Thread was made from plant fibres and rabbit hair, and though there is no evidence, they may have possessed the simple loom.
fig. 59. Restorations of figurines, terra cotta, Turner Mound Group, Ohio; Peabody Museum, Cambridge, Mass.
modeled and attached to the form, as some examples have
disclosed fully rounded buttocks and thighs beneath the
missing dress coverings. Furthermore, the bodily parts
as features and coiffure, also seem to have been separately
attached as an integral element. Surviving traces of red
and white paint appear on the dress and features.

The frontal planes are carved with a roundness of
form contrasting with the general flatness of the back of
the torso. Tapering inward from the armpits to the waist,
the body gently expands at the hips and continues along
the round substantial legs to sturdily formed feet. The
pronounced articulation of the legs is indicated by the
inward contraction below the knee-caps and a corresponding
hollowing at the posterior joint merging with the thick
muscular calces. These legs are closely spaced and separately
carved; even in the seated figures they are individually
modeled. On some figures, legging-like coverings are de­
scribed by incised parallel lines, while borders of the
mocassins are in low relief.

Imperceptively emerging from the broad rounded
shoulders are cylindrically shaped arms articulated at the
elbows. In all cases the upper arm is cut away from the
body with the lower part attached at the sides or in front.
This separation of the arms imparts a feeling of controlled
vitality in the figure. The relatively flat torso is sug­
gestively modeled with a slight swelling of the chest and
more pronounced volume of the buttocks and stomach; the
latter emphasized by the folds of flesh above and below the constricting garment. Distinctive of these figures is a vertical shallow depression representing the spine and stomach structure, correspondingly depicted on the back and front of the body.

Another characteristic of the style is the decided forward sweep of the ovoid heads from the face to the chin, accommodated by the upward projection at the read (Pl. XLVII, fig. 60). This protrusion of the lower part of the face gives them a distinctive appearance. Except for one specimen the naturalistically proportioned facial features are practically identical in expression. Frequently a narrow strip of clay delineates the eyebrows accenting the depressed sockets. Obliquely placed eyes are characteristically shaped with wide tear ducts tapering to pointed ends. Although there is no indication of pupils, many were painted white as if meant to be shown as open. Depth or modeling of form is achieved by the forward and backward movement of the planes angularly sloping forward from beneath the eyes to the fleshy mouth and leaving the cheek bones in high relief. Projecting from the sides of the head are solid forms of the ears with their interior structure indicated by a simple incised line. In some cases ear spools of the double cymbal type are attached at the lobes, whereas others are heavy solid tubular shapes.

An enveloping coiffure with no incised striations of
fig. 60. Human heads, terra cotta, Turner Mound Group, Ohio; Peabody Museum, Mass.
hair extends from the forehead to the back of the neck. On the male heads it is gathered into a single projection and tied with bands at the base, whereas on the females it is held close against the head and in one example gathered into a large plat at the back.

The carvings display a general understanding of plastic form as an expression of life and character. This is not merely a descriptive or intuitive realism, as the form has been felt in its larger significant relations with little emphasis on those intricate details which give an air of individualization.

The most complete figure is the seated male with knees bent before him and clasped with his hands (Pl. XLVIII, fig. 61,a,b). The generally flattened torso bears a slight swelling of the chest and back, while tapered inward at the sides, the body continues into rounded buttocks and well-modeled legs divided by deep undercutting. Extending downward from the broad shoulders are cylindrically shaped arms articulated at the elbows and ending in typically short fingers delineated by incisions. Another characteristic feature of this figure is the rigid longitudinal grooves correspondingly shown on each side of the body.

Surmounted on a thick neck is the commonly shaped head with forward projection of the mouth and chin accommodated by the flat projection at the rear. This flattening is continued along the back to the buttocks. Readily apparent is
fig. 61. Human figurine, terra cotta, Turner Mound Group, Ohio; Peabody Museum, Cambridge, Mass.
the method of modeling the eye, whereby, they are undercut and left in relief by the planes sloping forward around the high cheek bones. Obliquely placed, they are emphasized by the overhanging eyebrows formed by an added strip of clay. Below the broad expanded nose are the consistent protruding lips. Large solid ears equalling the area from the eyes to the mouth are structurally defined by a simple curvilinear line. The tightly enveloping coiffure is gathered into a large knot in the center of the forehead, a motif frequently present on other heads of this group.

Closely related in treatment is the largest figure depicting a standing male recovered in a partly broken condition (Pl. XLIX, fig. 62). For instance, the head is completely obliterated except for part of the headdress and attached ear spools of the double-disc type. In addition, the left arm, lower leg and feet are missing. Although the surface is chipped in several places, the remainder exhibits sufficient proof of the characteristic smooth modeling and original high surface polish. The overlapping fold of the loin cloth was separately fashioned and attached to the waist, while traces of red paint on the surface indicate that the garment was completely painted. No other evidence of painting appears on the figure.

The same basically flat torso tapers inward at the sides as in the above figure (Pl.XLVIII, fig. 61) with the typical shallow longitudinal grooves extending along the
front and rear. Closely spaced, the substantial legs are also attached at the thighs, but separated above the carefully modeled knees and marked with the inward constriction at the joint and expansion of the calves. As in the above example, the slight swelling of the abdominal wall, buttocks and genitalia are subtly modeled, the latter naturalistically emphasized by the deeply cut diagonal folds of the garment. Sharply bent at the elbows, the cylindrically shaped arms are indicated in high relief on the torso, with the hands crossed in a convincing manner. This position of the arms imbues the figure with some degree of tension, breaking an otherwise static pose. An unusual feature is the distinct covering on the right wrist and forearm modeled in low relief and decorated with parallel rows of lightly incised striations on the surface indicating texture.

Assuming the same standing position are two smaller male figures found in more fragmentary condition (Pl. L, fig. 63, 64). Stylistic affiliations to this group of Turner figures include the characteristically flattened planes of the torso tapering inward at the waist and expanding outward around the hips and thighs. Furthermore, the common vertical groove extends down the back of figure 62 b leading to the loin cloth, attached as a separate addition. Again the buttocks are carefully modeled beneath the garment. On the other hand, the garment of the male (fig. 63 a) indicated by a series of four concentric lines, is perhaps unfinished.
This use of incisions is continued on the left leg depicting leggings and covered with white paint. The head attached to this latter figure, seen in the reconstructed drawing (Pl. XLVI, fig. 59 a) is actually a hypothetical reconstruction, as the neck is missing and the head does not fit successfully on the shoulders.

The most expressive carving of the group is the standing female figure (Pl. LI, fig. 65). Although partly broken, it is very sensitive in treatment and suggests an individual characterization. This is subtly conveyed by the feeling for fleshy structure, rendering of the extremities, the strong way in which the neck protrudes forward from the shoulders, and especially the facial countenance.

The weight of the body is supported by muscular legs and broad feet with mocassins indicated by the rolled edge and square incision of the instep. Wide shoulders, heavy articulated arms, hips and thighs, successfully convey this heavy impression. Large breasts overhanging the abdominal wall are clarified by deep undercutting and accented by dark cast shadows. As previously noted, the figure was first modeled in the nude and then enveloped by a close fitting garment with the flesh bulging above and below the tight constriction at the waist. It is a wrap-around skirt with the end tucked in at the back and the overlapping fold extending from this point to the hem. Traces of red pigment is seen on the surface.
fig. 65. Human figurine, terra cotta, Turner Mound Group, Ohio; Peabody Museum, Cambridge, Mass.
Evenly balanced on the thick neck, the typical ovoid head is accented by smooth undercutting along the lower margin of the jaw. Below, the sharply undercut eyebrows lucidly merge with the fleshy nose greatly enlarged at the nostrils, while the convex eyes are emphasized by white paint. Highly expressive and sensitive modeling of the facial planes appears in the feeling for the salience of the check bones and transition of the fleshy texture of the cheeks and subtle comprehension of the protruding full-lipped mouth. These elements belong to the notable refinements of the style. The ears were separately fashioned and attached to the head evident in the clean break outlining the shape of the missing left member. Modeled from a solid piece of clay, the only indication of interior structure is indicated by a curvilinear line identical to that on the male figure. The coiffure divided in the center by an incised line, curves around the ears and back of the neck into a large oval plat. Horizontally placed, it is modeled in relief with the rolled hair delineated by two undercut concentric ovals.

The quality and character of this carving seized from life, with a clear sense of its significance rarely appears in the human representations of Hopewellian sculpture. The interior structure and massive musculature are perfectly felt and correctly expressed; the whole has weight; proportions and a converging movement of the planes forward and backward in depth.
Smaller in size than the above specimen is the more fragmentary female figure (Pl. LII, fig. 66). Facial features are obliterated except for the projecting nose, while surface painting is limited to the completely painted white garment. Similarly portrayed is the substantial bulk of the torso, conveyed by the same features of broadly modeled back, wide waist with a slight tapering of sides, and closely spaced muscular legs. The characteristic longitudinal grooves on the torso are faintly discernible. Other common elements are the undercutting of the heavy breast and thick neck supporting an ovoid head. Furthermore, there is the same slight forward flexion of the legs from the thighs to the knees, while beneath the missing portions of the garment the buttocks are fully rounded.

Other figures, although found in a very fragmentary condition, reveal the same stylistic characteristics of the above examples; the whole, strongly homogeneous in style.

Style 2

Five figures found at the Knight Mound Group in Illinois constitute style 2 (Pl. LIII, LIV, LV, LVI, LVII). Homogeneous in style, they are marked by a disproportionate integration of forms with the head slightly less than one third the length of the body. The consistent features of enlarged head, compact torso, and short attached legs contrast with the pronounced naturalism of the Turner
fig. 66. Human figurine, terra cotta, Turner Mound Group, Ohio; Peabody Museum, Cambridge, Mass.
figures of style 1. Technically, the planes are smoothly rendered with a uniformity of finish. The surfaces are modified by more extensive decorative painting depicting ornaments, bodily parts and clothing. The figures are smaller in size ranging in height from three to four and one half inches.

Although conceived in a frontal pose as style 1, they deviate from the rigid symmetry of the latter by the varied position of the extremities, which depict the figures in relaxed typical positions. The most prominent feature of the style is the disproportionately large head, equal in width to the torso which makes these proportions seem heavy and squat. Inclined forward from the shoulders, the head is accentuated by the dark cast shadow of the overhang which suggests a short or non-existent neck. In shape they are broad ovals wider at the bottom or chin in the female figures, whereas, in the single male figure there is a greater width at the top. In profile, the relative flatness of the back and top portion combined with their inclination gives them a massive block-like appearance. In contrast to this flatness the face is rounded with the features clearly defined, for instance, the nose sharply projects forward while the eyebrows are deeply undercut with projecting modeled eyes emerging from the sockets. Obliquely placed as in the Turner figures they are also identically shaped with rounded tear ducts tapering to pointed ends, giving them a distinctive
appearance. Another consistent feature of this style is the wider full-lipped mouth with a pronounced cleft of the upper lip. The deeply sharply undercut planes sensitively continue downward and forward around the high cheek bones to the mouth and chin.

The broadly modeled coiffure bears no indication of individual striations of hair. Although differing slightly it possesses essentially the same design on the three female figures. Beginning low on the forehead the coiffure flows downward to the shoulders, while in some specimens the hair extends below the waist. The large semi-circular forms emerging from the enveloping hair represent ear spools, as the ears in two specimens are shown modeled close to the head with interior structure stylistically treated.

Although the size of the head tends to disrupt the proportions, anatomical parts of the body are represented and integrated in a naturalistic manner. The torso is relatively flat with round undulating sides that emphasize the bodily form; narrowing at the waist the torso gently expands at the hips, tapers downward along the stocky legs abruptly terminating at the abbreviated feet. To counterbalance the weight of the head, the body is slightly bent at the waist with the thighs swung forward to the knees where they round out into straight lower legs. The muscle structure and joints of the legs are generalized shapes which imply an articulation of the knees emphasized by the swelling calves. Dis-
tinctive of this style is the tightly constricted lower border of the dress which binds the legs closely together prohibiting their movement.

The clothing is depicted sculpturally with the borders slightly undercut in low relief. As in style 1, they are similarly clothed, male with short loin cloth and female with knee-length dress, the latter decorated with painted designs. Painting also describes ornaments as bracelets, arm bands and foot coverings in a definite style, whereby, the surfaces are painted black or red and bordered with white spots. These spots probably represent beads or pearls.

Carved in the round the arms are bent or strongly flexed at the elbows and modeled in relief where attached to the body, thereby creating a void between them and the body itself. This treatment of the arms, combined with the staggered placing of the hands, animates an otherwise stiff pose by the openness of the design breaking up the firm contour of the figure. Light undercutting carefully delineates the fingers.

Children carried on the back or held in the arms of the female figures are similarly carved with broad, simple planes. They are more naturalistically conceived than the

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1 A well developed weaving art also existed at Hopewellian sites in Illinois. Textiles consisted of netting, fine and coarse woven cloth, matting and basketry. Buffalo hair, bird feathers, and bast fibres were apparently used in cloth making, and occasionally were decorated with painted designs as those from Ohio Hopewellian sites.
adults with proportionately smaller heads and longer torsos. Imbued with a more activated movement they are shown in typical life-like poses. In contrast to the adult forms there is no evidence of surface painting on the children.

The style of these Knight figurines is simple and direct, and as in style 1, the modeled frontal aspect of the form presents little intimation of a rounded three-dimensional rear portion. Component parts and surfaces are summary in treatment and though the head is enlarged the figure has nearly normal proportions. Essential anatomical parts are functionally rendered and the primary purpose of each simplified element is readily apparent. Relatively broad shapes, emphasizing the smooth curves of the contours, describe the substantial compact form with the weight bearing down on short sturdy legs. These short heavy proportions convey the impression of a strong muscular body.

The most elaborate example is the female figure standing in a symmetrically fixed frontal pose (Pl. LIII, fig. 67). Decoratively painted details and ornaments include the black hair with red ear spools, white necklace with black dots, black dress bordered with white rows and secured at the waist by red belt decorated with orange designs, white bustle-like addition at the rear, white feather-like objects held in the hands at the front, and finally arm bands, bracelets and moccasins painted red or black and bordered with white dots, probably represent beads.
fig. 67. Human figurine, clay, Knight Mound Group, Illinois; Collection P. F. Titterington, St. Louis, Missouri
From the rear, the characteristic rhythmic shape of the form can best be observed. This is apparent in the rounded shoulders tapering to the waist where it gently swells outward around the volume of the hips and continues downward to the short sturdy legs. The lower part of the body from the hips to the knees sweeps forward to counterbalance the weight of the massive head. The tapering sides are accented by the shape of the prominent ridge of hair extending down the back. Contrasting with the flatness of the back of the figure are small sensitively modeled breasts drawn out from the chest, the naturalistic bulge of the stomach and articulation of the legs suggested by the swelling of the calves. The design of the articulated arms echoes the shape of the ovoid head, imbuing the figure with a compact harmonious effect.

Characteristic features of the head include the enveloping helmet-like coiffure with two identical knob-like forms of hair tied with a white band, recalling the large knob shapes on Turner heads with bands indicated by incisions. Between the knob and ear on the right side of the head is a crescent-shaped fillet carved in relief. This is the only figure with ears indicated and the interior structure stylistically modeled. Attached at the lobes are the large common ear spools almost equalling the width of the shoulders, thereby emphasizing the condensed proportions of the body.

More relaxed in treatment and less elaborately decorated is the standing woman holding a child on her back.
Her right hand extends back to grasp the child's right knee, while her projecting left arm is awkwardly bent backward clasping the left wrist of the child. Diagonally placed on the mother's back, the child is comfortably supported with his left arm resting across his mother's shoulder and unusually long fingers implying a firmer attachment.

In profile, the frontal aspect of the female form is depicted by the slight undulating curves of the forms flowing from head to foot, similar to the above figure. The forward shifting movement of these planes is emphatically pronounced by the left arm thrust into space, and counterbalanced at the rear by the backward tilt of the child's head. Decorative accessories, including knee-length dress, are commonly painted in combinations of red, black and white. From the front, the coiffure is similar in style to the other figure, but at the back it is gathered into a large oval plat recalling the design of the figure from the Turner Mound (Pl. LI, fig. 65). Placed in a vertical position on the side of the head it does not conflict with the head of the child.

Flattened at the rear, the contours of the child's torso flow uninterruptedly along the sides to the feet. The articulated legs naturally spread around the hips of the mother, terminate in more substantial feet. Greater realism of form than the adult is achieved by the head smaller in
fig. 68. Human figurine, clay, Knight Mound Group, Illinois; Collection P.F. Titterington, St. Louis, Missouri
proportion to the body. In contrast, the head is narrower than that of the adult, with eyes almost on a level line and mouth slightly parted imbuing the figure with a more life-like feeling. There are no painted decorations or ornaments on the nude body.

The other compositional figure is the woman holding a nursing infant to her breast (Pl. LV, fig. 69). Modeled in a balanced compact design, the child rests in the mother's lap with his head cradled on her right arm while the left arm swings around its body supporting the child at the back. Her right shoulder is slightly lowered in a life-like manner to permit the child to comfortably grasp the breast. The resultant series of ovals formed by the position of the arms and legs, unify the design. Characteristic of these figures is the unusual position of the legs placed one above the other. Although in an anatomically impossible pose, a similar position has been observed among Indian women of some historic groups.

Set directly upon the shoulders, the dominating head bears the typical coiffure with hair extending to the buttocks in an uninterrupted ridge, seen in the standing figure. Painted black, in contrast with the large red earspools. Other evidence of painting appears on the red dress decoratively painted by a distinctive band of white bordered by red, which extends across the front and back of the garment.
fig. 69. Human figurine, clay, Knight Mound Group, Illinois; Collection P. F. Titterington, St. Louis, Missouri
Bodily decorations common on other figures of the group are non-existent.

To strengthen the unity of the design the space between the child and mother was left uncarved, apparent by the exaggerated width of the upper part of the child's body. As the other figure, the child is more naturalistically proportioned than the adult. Furthermore, it resembles the other figure with generalized parts integrated in a simplified manner. The weight and mass of the body is strongly expressed by the overlapping buttocks covering the mother's left arm. Partly counterbalancing the backward twist of the female's legs are those of the child as they bend around the left arm of the former. Facial features are identical to figure (Pl. LIV, fig. 68), such as the small nose, almost level eyes and elongated face.

Seated in a similar position to the above figure but without a child, is the individual female with legs characteristically arranged one above the other (Pl. LVI, fig. 70). The right hand clasps the knees while the left arm is bent inward to the body at right angle, evidenced by the remains of the hand at the waist. This pose creates a compact oval design running downward from the right shoulder, around the knees and upward to the left shoulder. The characteristic "V" shape tapering of the torso expands around the full volumed hips emphasized by the low curvilinear ridge of hair extending downwards to the buttocks. In contrast to the
fig. 70. Human figurine, clay, Knight Mound Group, Illinois; Collection P.F. Titterington, St. Louis, Missouri
other figure (Pl: LV, fig. 69), there are more decorative ornaments, as arm bands, bracelets and necklace painted in the typical manner.

Although the head is strikingly similar to that of the above figure, the modeling of the facial planes is probably the most expressive of the group. Definite cut planes, revealed by the prominent cheek bones are modeled vertically downward, presenting a block-like aspect to the lower part of the face. Features are more sharply undercut, imbuing the face with a more severe expression.

The only male of the group is seated back on his heels with the enlarged head supported by the long staff held before him (Pl. LVII, fig. 71). Both arms are sharply bent with the position of the right member broken below the shoulder indicated by the hand grasping the staff. This position of the arms imbues the figure with a controlled tenseness and implied movement. The flat simplified torso slightly tapers inward at the waist with the forward swing of the hips emphasized by the fold of the linen cloth. Partially separated at the rounded knees, the leg structure is delineated by a deep groove running backward to the feet.

Above the loin cloth the entire body is painted a purplish red suggestive of a shirt, with decorative bands extending from the neck across the shoulders and around the chest to the back. These bands are painted white bordered
fig. 71. Human figurine, clay, Knight Mound Group, Illinois; Collection P. F. Titterington, St. Louis, Missouri
with red and covered with a series of black lines. Painting is also continued on the face, completely white except for two red bands on the forehead, contrasting with the black coiffure. The coiffure is divided into a low pompadour shape at the top and a circular plat at the rear representing hair or hair augmented by accessories. The avoidance or elimination of ears is indicated by the solid red spools at the sides of the head.

The features are more angularly carved than the female figures with tooling marks distinguishable on the surface. This crudeness is also apparent in the almost obliterated left eye and disturbed right member. Other distinctive features include the wider area between mouth and nose, cleft of upper lip and more pointed chin sharply tapering downward from the cheekbones.

As in the Turner group of figurines, these figures are remarkably homogeneous in style, strongly suggesting a single authorship. Aside from the distinctive proportions and elaborate painting, there is a greater concern for the intimacy of life, particularly evident in the naturalness of the mother and child figures.

Stylistically related to the Knight figures of style 2 is an interesting female sculpture found at the Whitnah village site in Illinois (Pl. LVIII, fig. 72, a, b, c).¹

¹Both this site and the Knight Mound group are located along the Illinois River making contacts between them easily accessible.
fig. 72. Human figurine, clay, Whitnah Village Site, Illinois; Chicago Natural History Museum, Chicago, Illinois
Modeled from untempered clay several indications of its unfinished state appear in crude modeling of features and parts and nudity with no delineation of clothing or surface painting, furthermore, the arms never seem to have been modeled, feet are tentatively treated and eyes are simply represented by pair of incised lines. Judging by the round convex shapes of the eyes on the Knight and Turner figures, it seems that these features were first marked by lines before undercutting the surrounding area. Incised lines on the bridge of the nose and the single line of the mouth indicates a similar preparatory step in modeling.

Features shared in common with the Knight figures of style 2, include the disproportionately enlarged head placed directly on the shoulders and accented by a dark cast shadow and the broad face widening into a massive chin giving the head a characteristic block-like shape. A further resemblance in the coiffure is the incised line across the top of the head dividing the hair into two equal parts. Finally the flattened rear part of the body with pointed breasts drawn out from the chest, and the whole tapering below to the common short stocky legs.¹

In 1898 two clay figures were found in the Baehr

¹ Chapman, 1952, fig. 61. The author illustrates a very similar style in the example of the head found in the Kansas City area. It possesses the same shaped head with massive chin, almost non-existent neck, parallel lines representing eyes and the single line extending across the top of the identical type coiffure.
Mounds, Illinois, (Pl. LIX, figs. 73, a, b, 74). They have since disappeared, the only evidence of their presence are drawings made and discussed by the archaeologist in a brief article. It is therefore, hazardous to attempt more than a general analysis on the basis of the drawings as their accuracy cannot be determined.

The author states that they are modeled in hard baked smoothly finished clay bearing no evidence of surface painting. Representing male figures, they vary in size and proportion and strangely enough resemble both style 1 and 2. This is apparent in the elongated proportions of figure 72 which recalls the Turner figures. Apparently nude, it may have been meant to be clothed by separately fashioned loin cloth common in style 1. Related features include the subtle modeling of the chest and buttocks, closely spaced legs articulated at the knees and ending in broad sturdy feet with downward pointing toe. The arms are stiffly held at the side as in the Turner male figures (Pl. XLVI, fig. 59), while the obliterated head shows the same large ears ending in ear spools with interior structure defined by common concentric lines. Finally the enveloping coiffure gathered into a protuberance on the forehead recalls the figure (Pl. XLVIII, fig. 61).

On the other hand the smaller figure (fig. 73 a, b) resembles the Knight figures of style 2 in such general

1 Snyder, 1898, pp. 16-18.
fig. 73, 74. Human figurines, clay, Saehr Mound Group, Illinois; missing, known only by drawings
features as the flattened upper part of the torso, broad rounded shoulders, tapering sides leading to expanded hips and stocky legs which terminate in small feet.

The loss of these figures is to be regretted as the peculiar feature of two figures each conforming to style 1 and 2 may indicate a definite mingling of two distant regional styles at one specific site.

Figurines of style 1 and 2 are so consistently modeled as to strongly suggest the work of at least one or two sculptors. Although the figural groups are basically naturalistic portrayals of actual peoples of the culture, each tends to conform to a specific regional style with little indication of individualization or an attempt at portraiture. The strongly naturalistic Turner figures of style 1 conform to the numerous lifelike animal carvings from the same area, whereas, style 2 figures from Illinois are distinctive by disproportionately enlarged head and compact reduction of the bodily form. As a whole, the figures display a high degree of technical ability in-keeping with the Hopewelian art style.

There is a wider range in distribution and variation among the isolated finds of human heads analyzed in the following section.
HUMAN HEADS
An important group of carvings are the isolated human heads carved for specific purposes, as effigy pipes, while others were probably broken from the torso of a missing figurine. They are more widely distributed than the figurines of style land 2, the greater number having been found in Ohio, with scattered examples from Illinois, Indiana, Louisiana and Oklahoma. Moreover, they are carved from an extensive variety of materials as stone, clay, antler bone, fossil ivory and copper. Although there is no clear indication of sex, many tend to represent masculine characteristics. Relatively small in size, they bear no evidence of decorative painting.

Although slightly different head shapes, features, coiffure and tribal marks occur among the specimens, consistent style elements are apparent within these variations. The head is conceived as a substantial form with a broad ovoid face; features are naturalistic in scale and arrangement and the planes are smoothly integrated. In some cases there is a strong suggestion of artificial deformation of the temporal and rear portions, a practice observed on Hopewell skulls from the mounds. The eyebrows are indicated by a ridge or inward beveling, while the eyes are either large ovoid shapes or sharply taper to pointed ends as in the figurines. Evenly or obliquely arranged on the face, they are sightless and with no indication of pupils except for one specimen. The nose is invariably long and expanded at the base while the mouth is
straight and defined by individually modeled fleshy lips. Prominant ears held close against the side of the head, are rectangular or ovoid shapes usually tapering to long lobes, with the structure modeled in low relief. Occasionally ear spools of the common double cymbal type are attached at the lobes.

A coiffure completely envelops the head in a helmet-like fashion, extending from the top to the neck recalling the figures of style 2. It is generally simple, but sometimes bears projecting knot-like shapes. Except for three examples, there is no indication of hair striations, also absent on the figurines.

Facial or tribal markings on several specimens are arranged in a symmetrical design. These elements are basically curvilinear with various motifs identical in style to geometric two-dimensional designs.

These figures can be grouped into two types. Type 1 includes those comparatively rare examples carved as effigy pipes, while the larger remaining group conforms to type 2.

Type 1

Representative of type 1 are four human effigy pipes (Pl. LX, LXI, LXII, LXIII). Most complete are the three pipes found at Mound City by Squier and Davis about the middle of the nineteenth century.¹ Rigidly carved in frontal position they face the smoker, as in the animal effigy pipes, with the

¹ Squier, E. G. and E. H. Davis, 1848, pp. 87-9.
bowl carved downward through the top of the head. Surface planes flow with a subtle refinement into one another allowing full expression to the tapering oval shape of the head, while structural and fleshy forms, as the nose and lips, are carved with a marked sensitivity and naturalism.

The most life-like example (Pl. LX, fig. 75 a, b), is heightened by the fully rounded forehead and rear portion, in contrast to the flattening of the other two figures, (Pl. LXI, fig. 76; Pl. LXII, fig. 77), which suggest artificial deformation. Below the characteristic long nose protrudes a fleshy mouth, slightly exceeding the width of the nose, with the lips individually modeled. Emerging from the depressed eye sockets are large ovoid eyes pronounced by their convexity. They contrast with the tapered eyes on the figurines. Evenly arranged, they are plain and sightless, or encircled by the incised line of the lids. The ears vary in treatment from the stylized shapes of the figure (Pl. LXII, fig. 77) to the naturalism of figures, (Pl. LX, LXI). Modeled close to the side of the head, they are large in size with the outer structure and lobe modeled in high relief. The four perforations along the outer edge of these ears are also seen on other examples from Ohio, (Pl. XLVII, figs. 83, 84). Carefully modeled facial planes defining the muscle structure, move forward and backward in depth leaving the high pronounced cheek bones in relief.

Enveloping the head is a helmet-like coiffure also common in the Turner figurines. Modeled in relief, it extends
fig. 75. "Human effigy pipe, pipestone, Mound City Group, Ohio; American Museum of Natural History, New York"
fig. 76. Human effigy pipe, pipestone, Mound City Group, Ohio; American Museum of Natural History, New York
fig. 77a, b. Human effigy pipe, pipestone, Mound City Group, Ohio; American Museum of Natural History, New York
across the forehead to the base, while two holes placed at the rear of the figure (Pl. LX, fig. 75) correspond to two rounded projections representing hair on figure (Pl. LXI, fig. 76). Another projection on the forehead recalls those on figurines from Ohio and Illinois. The unusual type coiffure of figure (Pl. LXII, fig. 77) is marked by two pointed projections at the top, while the ends or appendages continuing downward from this point are undercut in high relief along the sides of the head. Bordering the front of the headdress from ear to ear, are a series of closely spaced depressions, each originally inlaid with a pearl. The decorative use of pearls are also employed at the ears.

The most characteristic features of this carving are the incised facial or tribal markings. They are symmetrically planned with identical elements arranged on either side of an implied central axis, extending from forehead to chin. Basically curvilinear in design, these elements are reminiscent to the two-dimensional designs, for instance, above the eyes the pair of confronting graceful lines with rounded ends meeting in the center recall common variations of the "comma" motif in two-dimensional engravings (Pl. LXXXVI, figs. 103,109). Echoing this paired element are those rising from the corner of the mouth and extending to the jaw. Conforming to this predominant curve are the two sweeping lines extending from the corner of the eyes across the face, while deeply cut arcs appear along the upper side of the cheeks and beneath the eyes.
Closely related to this head is the highly decorated carving found at the Edward Harness Mound in Ohio (Pl. LXII, fig. 78). Although in a fragmentary condition, various features suggest its use as an effigy pipe. This is indicated by the wide hollow opening of the mouth and a channel drilled upward through the base opening into the back. It may have been attached to a platform, the channel continued to the inhale hole and the tobacco placed in the wide hollow, however, there is no internal evidence that the specimen had actually been used for smoking.

The face conforms to the basic ovoid shape with smooth rounded sides resembling the effigy (Pl. LXII, fig. 77). This similarity is heightened as these are the only effigies examined in this paper bearing incised facial designs. Features in common with the above pipes include the long straight prominent nose, protruding full-lipped mouth and recessed chin. Moreover, broad smoothly integrated facial planes curve around the cheeks inward below the nose and sensitively flow around the muscles of the mouth to the chin.

The rear portion is flattened with the distinctive element of a large circular disc completely incised with a swastika design. Along the upper part of the head and continued to the right side of the face are a series of ridges which suggest part of an intended headdress. Large ears of

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1 Two swastika designs cut from sheet copper were found in the Hopewell Mound Group, Ohio. Shetrone, 1926, p. 216.
fig. 78. Human effigy pipe, sandstone, Edward Harness Mound, Ohio; Peabody Museum, Cambridge, Mass.
elongated oval shapes are modeled in relief along the side of the head. Angularly placed, they are wider at the top with the interior structure stylistically incised on the surface. These incisions consist of curvilinear designs expanding into rounded ends and loops followed beneath by an elongated shape. This schematic treatment of the ear structure has also appeared on the Turner figurines, (Pl. XLVIII, fig. 61), but not as elaborate or deeply cut. The intricately incised design on the face is symmetrically planned. Relationships with the geometric Hopewell style are seen in the moving curvilinear elements contained with a unified design.

Type 2

Representative of type 2 are the remaining heads carved from a variety of materials. While many were apparently broken from a figurine, the specific use of the others is difficult to determine. The largest example of this type was modeled from untempered clay and fired (Pl. LXIV, fig. 79 a,b). Recovered in a fragmentary condition from the Seip Mound, it had not been satisfactorily restored at the time of publication of the mound report. Several years afterwards Richard Morgan reconstructed the head which he described and illustrated in a brief article.¹ It must be borne in mind, however, that the head is largely a hypothetical reconstruction of many broken pieces. This is markedly evident in several features, for instance, the position of the ears were approximated as their

¹ Morgan, 1941, pp. 384-7.
fig. 79. Human head, clay, Seip Mound Ohio; Ohio State Museum, Columbus, Ohio
points of contact were missing, and the pupil of the left eye and nose were completely restored. The width of the latter was indicated at the base of the nostrils but its contour and shape is pure conjecture. The ears and perhaps other features were separately fashioned and attached before firing, recalling the Turner figurines. Traces of red pigment survive on the ears, lips and at the base, while scattered finely incised lines appear on the surface but in no consistent pattern.

The large head conforms to the common ovoid shape with a comparatively high flattened rear portion, recalling the Turner figurine heads (Pl. XLVII, fig. 60). The fleshy mouth is divided by a horizontal groove with the unusually large full lips individually modeled, and emphasized by recessed chin. The lone rounded ears display a considerable naturalistic concern with interior structure depicted by a series of ridges and grooves, and deep depression marking the interior canal. As in other figures (Pl. LX, fig. 75; Pl. LXI, fig. 76), three perforations appear along the outer margin of each ear. This relationship to the effigy pipes is marked by the large ovoid eyes below the sharp recess of the eyebrows. A headdress may have been attached prompted by several deep incisions across the forehead and along each side of the head behind the ear extending from the top to the base.¹ A similar longitudinal incision

¹ There is a wide circular opening in the base about one inch deep, and in line with two small channels extending downward from the top of the head. Due to the condition of the fragments it could not be established whether or not they were connected with the basal opening. Possibly the head was meant to
appears on the head carved from antler (Pl. XLV, fig. 82) and may indicate a specific common type headdress or coiffure.

Although found together with the three human pipes at Mound City, this example (Pl. LXV, fig. 80) solidly carved from stone, does not constitute a pipe bowl. The base shown in the drawing, was a subsequent addition for support. Stylistic relationships to the effigy pipes include the ovoid face expanded around the eye region, prominent nose, wide forehead, fleshy full-lipped mouth and sunken sockets with eyes represented by shallow depressions. The ears are not clearly indicated in the drawing, but the author states that "...each was perforated and from the strongly attached oxide of copper at these points were probably ornaments with rings of that metal."\(^1\) Another affiliated feature is the incised markings. For instance, encircling lines around the eyes recall the Harness pipe, while markings at the corners of the mouth and confronting design of straight lines ending in circles on the forehead resemble the effigy pipe from Mound City (Pl. LXII, fig. 77).

Distinctive of the carving is the knot-like mass of hair at the rear and scalloped edged borders of the element above the ears accented with concentric incisions. Across the top is a raised plat reminiscent to the figure carved

\(^1\) Squier, Op.Cit., p. 98.
fig. 80. Human head, sandstone, Mound City Group, Ohio; American Museum of Natural History, New York

fig. 81. Human head, fossilized ivory, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
from antler (Pl. XLVII, fig. 83).

The most unusual member of this group is the carved example from fossil mammoth ivory (Pl. LXV, fig. 81). Recovered from the altar of the Hopewell Mound Group, it was badly damaged by the heat with the right side of the face and most of the body obliterated.

Several resemblances with the preceding figure include the expanded ovoid shape of the head with a high forehead and design of the headdress. Both consist of a central section on the top bordered by two wide appendages, with concentric lines on the surface. Relationships with other carvings of this group are seen in the presence of tribal markings on the face, disproportionately enlarged ears and characteristically shaped eyes, wider at the ducts and tapering to pointed ends. This is the only specimen, however, with an indication of pupils here made by punctates.

Behind the head is a peculiar chignon probably representing the hair alone or confined in a net, as incised lines on the surface may indicate meshes. From the bottom of the chignon and extending downward along the back is a flattened projection, which widens as it descends. Upon it is another undercut narrower cylindrical shape with lower end missing. A raised rectangular shape hangs along the chest from beneath the lower jaw, with incised "Z" shaped line in combination with five punctates.¹

¹The curved ornament shown attached to the distended ear and resting across the shoulder resembles those found at each side of the neck of a skeleton.
Although carved from a two-dimensional piece of sheet copper the obvious stylistic affinities of this figure, (Pl. LXVI, fig. 82) include it in type 2. Depth of features is successfully achieved in a repoussé technique, as the arched socket with prominent eye and long distended ear with ridge of outer margin is reminiscent to the above ivory carving but with a circular ear spool of the double-disc type. The sensitive modeling of the cheek structure is indicated by a high to low depressed area extending from the side to front of the face.

Stylistically consistent are the two partly destroyed heads carved from antler bone (Pl. LXVII, figs. 83, 84). They both possess ovoid shaped eyes, long nose and prominent square ears modeled with series of ridges. Moreover, in the smaller example (Pl. LXV, fig. 83) there are the frequent series of holes along the outer margin. ¹ An important feature of the badly destroyed carving (Pl. LXVII, fig. 84) is the crescent shaped fillet above the ear immediately recalling the headdress of the figurine from the Knight Mound (Pl. LIII, fig. 67) while the flat disc on the top of the head resembles that of the stone head from Mound City (Pl. LXV, fig. 80). Furthermore, the longitudinal groove along the rear part of both heads appear on several other examples (Pl. LXIV, fig. 79; Pl. LXIX, fig. 87).

¹Partly hollowed out from the base of the neck it may have been utilized as an atlatl handle (throwing stick) as seen in the hypothetical illustration.
fig. 82. Human head, copper, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 83. Human head, antler, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois

fig. 84. Human head, antler, Hopewell Mound Group, Ohio; Chicago, Natural History Museum, Chicago, Illinois
Carvings from other areas bear many affiliations to the Ohio examples including the Turner figurines of style 1. They all seem to have been broken from torsos but in only one instance was the body itself found.

The two examples from Illinois were both found by amateurs in Hopewellian regions. The most interesting is the smaller more delicate example modeled from clay, known as "Willie Smith" head (Pl. LXVIII, fig. 85).\(^1\) Stylistically it resembles the Turner figures (Pl.XLVI, fig. 59), seen in the lucid oval shape of the head expanding around the cheeks, design and position of the eyes, large solid ear with interior structure indicated by simple incised line and bearing common double cymbal ear spool; finally, the planes of the cheeks sloping or falling away from beneath the eyes to the mouth and chin. On the other hand, the design of the coiffure, as the crescent shape on the right side of the head, recalls the Knight figure (Pl. LIII, fig. 67), whereas the longitudinal ridge along the right side of the head is seen on the Ohio examples (Pl. LXIV, fig. 79; Pl. LXVII, fig. 83). The hair continues across the forehead where it is gathered into a large single strand extending below the ear. An unusual feature of

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\(^1\) The body of this figure was later recovered by the same man who found the head, Willie Smith. Represented in a seated position the legs as in the Knight figures, are characteristically portrayed one above the other and extended at right angles to the body. Both arms are articulated, with the left resting on the knees and the right on the feet alongside the body. The planes are broadly treated with heavy breasts, and there is no indication of clothing or surface painting.
fig. 85. Human head, clay, Twenhafel Site, Jackson County, Illinois; Private Collection

fig. 86. Human head, sandstone, Steuben Village Site, Peoria, Illinois; Private Collection
the face is the vertical groove above the upper lips and perforations at each corner of the mouth.

More crude and block-like in treatment is the sandstone specimen (Pl. LXVIII, fig. 86) with the disproportionately enlarged head flattened in the rear strongly suggesting deformation. The broad oval face is modeled with related features, as elongated ears with interior structure stylistically defined with series of ridges recalling the treatment on the Seip head (Pl. LXIV, fig. 79) and ovoid eyes tending towards an oblique arrangement. In profile, the broad expanded forehead leads to sharp outward projection of nose synonymous with above clay example. The nose and mouth are prominentely treated and defined by deep undercutting.

The widespread influence of the Hopewelian style is clearly illustrated by the clay head found at a Hopewelian Village site in northeastern Oklahoma (Pl. LXIX, fig. 87,a,b,c). It closely resembles the Illinois carving (Pl.LXVIII, fig. 85), seen in the ovoid head sharply tapering below cheeks to narrow rounded chin, wide expanded forehead tapering into prominent projection of nose from bridge. Obliquely arranged eyes within the sockets are undercut by the broad projecting planes of cheeks leading to the small mouth. The ears recall the Baehr figure (Pl. LIX, fig. 74) with long lobes ending in circular earspools and interior structure defined by a concentric groove. Incised facial markings appear on the forehead, around the mouth, and across bridge of nose.
fig. 87. Human head, clay, Delaware County, Oklahoma; University of Oklahoma, Norman, Oklahoma
The elaborate coiffure bears obvious relationships to the Knight figures from Illinois (Pl. LIII, fig. 67). For instance, the protuberance in front and on left side, identical undercut groove extending from the top of the head to the base, and the crescent shape fillet along the left side.

Two interesting small head (Pl. LXIX, fig. 88, a,b), found in Indiana reveal several distinctive features. This is apparent in the example (fig. 88a), where the head is fully rounded in shape contrasting with the basic ovoid of the above examples. The eyes retaining the same oblique tapering, are bordered below by unusually fleshy cheeks which serve to emphasize the facial structure. Particularly noteworthy is the indication of hair by striations not observed on examples from Ohio and Illinois. The coiffure nevertheless conforms to the enveloping design of the latter regions. This obvious indication of hair is also seen on the head of the figure (fig. 88 b), while surrounding it is a broad band probably representing a decorative covering.¹

This attempt to indicate hair is also seen on the clay head found at the Crooks site in Louisiana (Pl. LXX, fig. 89). Although the striations are similar in technique, the head differs in style. It is more angularly modeled, seen in the facial planes, coiffure design, large eyes deeply undercut and forehead extending in a straight line to the tip of the nose.

¹Black, 1933, p. 21. Another fragmentary example found in Indiana at the Worthington Mound bears the same indication of hair by a striation technique. But the coiffure is more elaborately designed, gathered into a bun at the back and a wide strand that extends across the right shoulder.
fig. 88. Human heads, clay, Mann Site, Indiana; Evansville College, Indiana
fig. 89. Human head, clay, Crooks Site, Louisiana; Louisiana State University, Baton Rouge, Louisiana

fig. 90. Human head, clay, Marksville Mound Group, Louisiana; Smithsonian Institution, Washington, D.C.
This treatment of nose and forehead combined with prominent indication of eyes is revealed in another small head from this region; Marksville Site (Pl. LXX, fig. 90). But this example is more rounded in shape and bears a large head-dress with no indication of hair. The two horn-like projections at the top recall those on the human effigy pipe from Mound City, Ohio (Pl. LXII, fig. 77), while the swelling at the sides suggest the sculptor's awareness of the ears.

Comparatively numerous finds of isolated human heads including effigy pipes, are found throughout the Hopewellian region, in contrast to the limited distribution of complete figurines. Except for the specimens from Ohio, finds from other regions resemble the Knight and Turner figures particularly in the characteristic shape of the eyes. Those from Ohio, however, are distinctly rendered with more life-like features. As a whole, the stylistic relationships of examples found at distant Hopewellian sites indicate contact and a characteristic tendency to conform to established traditions.
CHAPTER II
CLASSIFICATION AND ANALYSIS OF STYLES
PART II: TWO DIMENSIONAL SCULPTURE
Two-dimensional Hopewellian figurative sculpture consists of both cut-out forms and engravings executed in a wide range of materials such as, copper, mica, shell, bone and stone. Human, animal, bird and fish forms are represented with bird forms being the most common. Birds were also a popular subject for three-dimensional sculpture.

A wide variety of techniques were employed in the realization of subject matter. These include repousse, incisions, stamping and riveting. In the latter, separate copper pieces were fastened together with copper rivets inserted through holes and hammered at both ends. Perforations drilled through many objects illustrate their use as decorative attachments, while occasionally the surfaces were decorated with color, limited in range to red and black.

There is reason to suspect that a stencil-like form was employed by the sculptor for tracing many designs. This theory developed because of the identical size, design and treatment of various designs. Quimby first discussed the possibility with regard to geometric designs. He pointed out the perfect symmetry of the design and their strong stylistic similarity to Algonkian art. Among the latter northeastern peoples the process of a stencil is recorded as having been used, whereby the artist selected thin birchbark, folded it and then cut the design inward from the crease. When opened,

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1 Examples of this technique are seen on several objects from the Mound City Group. Mills, 1922, pp. 501-503.
2 Quimby, George, 1943, pp. 630-3.
the complete design was mathematically and perfectly balanced. This theory can be applied to many Hopewellian figurative examples. For instance, several cut out forms in copper and mica are so strikingly homogeneous to each other that when placed one atop the other they conform to a single basic shape (Pl. LXXXIII, LXXXVI). Besides this probable mechanical method of tracing are those identical designs engraved on hard materials, as bone and stone, which are too complex for the use of a stencil, but were obviously copied (Pl. LVI, fig. 131). This clearly illustrates the Hopewellian artist's meticulous and sure skill of hand and eye.

Almost every design engraved on bone and pottery is dual (Pl. CI-CIII, XCI-XCVI). The positive dark area defines one pattern with the residual light area usually presenting the important theme. In some cases, the one less immediately identifiable may be the more important. The dark areas consisting of short or long parallel lines or simple cross-hatching are sometimes stylistically developed into a positive pattern which is given a certain complexity by combining it with varied stripes and shapes. Design motifs include complicated modulated shapes, compound curves, and scroll-like lines developing winding tendrils or loops. Straight lines are rarely employed or even conceived. The most characteristic designs are portrayed in terms of a smoothly revolving movement, motion and its concomitant rhythm.

Stylistically, these two-dimensional carvings conform
to three styles ranging from a pronounced naturalism to a complex conventionalization. These two opposite trends of naturalism and conventionalization existed side by side in the art, with several essential features shared in common, such as, the selection of essential parts, prevalent concept of round curvilinear forms and clean cut edges.

To draw a sharp line between the end of one style and the beginning of another can never be anything but arbitrary.\(^1\) This difficulty is present in Hopewellian art where it is possible to trace the obvious deviations from a naturalistic form through a progressive series of adaptations. The process can best be explained in the following way.

The representation of a natural object when repeated constantly without further reference to the original diverges progressively from that original by convention, distortion and especially by elimination. Refined details are eliminated, conspicuous ones are exaggerated and the result tends towards a conventionalized figure that in the end may become unrecognizable. This conventionalization involving refashioning of the realistic form is apparently an intentional motivation to a consciously felt end. The simplification is a result of the selection of the features more characteristic of the type or most expressive of the quality that the artist intends to

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\(^1\) The carvings are so closely interrelated in conception and elements of design that the most satisfactory approach has been to consider them as a whole rather than dividing them into types on the basis of the materials employed.
Impart. Their deliberate emphasis is at the expense of the details not important for his purpose. This emphasis is apt to be carried further by an exaggeration of the features chosen to convey the impression. Finally, the combination of suppression and stress results in a physical distortion of the figure as compared with any actual member of the species.

This method implies a well evolved and synthetic thinking. The figures and designs thus formed are effective yet provide content for exploration and permit an adjustment through a considerable range of adaptations.

The Hopewellian artist in affecting an expressive conventionalization is directed by emotional purpose with the means dictated by the intensely felt objective. Undoubtedly, he progressed in channels prepared by tradition, training and his own skill. The direct apprehension of the intention and the immediate adjustment to it is the quintessence of inspired creative art. That the best of Hopewellian art is inspired is demonstrated by the objects themselves.

The provenience of two-dimensional sculpture, except for the designs incised on pottery, are restricted to the Ohio region with no documented objects recorded from other centers. Although such materials as copper and mica were found at many of the widespread Hopewellian centers, they are un-worked or else cut into objects as copper breastplates and ornaments. The figurative pottery designs, however, come primarily from Louisiana, with only several surviving vessels and decorated sherds from Ohio and Illinois.
These two-dimensional forms conform to three basic styles, naturalism, semi-naturalism and conventionalization. Although distinct from each other, these forms share various features in common.

**Style 1**

In this style the subject is depicted with a convincing naturalism as a record of a clear impression of the animal or figure in question. Human, animal, bird, reptilian and fish forms are represented carved from copper, mica, stone and shell. Animal forms are shown in full profile, while the humans are frontally posed with the legs turned outwards in a profile position. These human representations are more generalized than the animal, being headless and bearing no indication of sex or surface incisions. The body of both figures is a full substantial form reduced to the essential anatomical parts. Several design resemblances appear in facial and body markings between these animal forms and effigy pipes of type B. In some instances, anatomical parts such as hands, claws and bird wings are cut as isolated forms. Technically, the contours and parts of all carvings are characteristically careful and evenly cut.

Representative of this style are a series of cut out copper forms of the eagle or Duck Hawk found at two important sites, (Pl.LXXII, LXXIII). Homogeneous in size and essentially very close in style and technique, they differ only in minor details. The sculptor has admirably conveyed the character-
istics of the bird with the large massive body, long curving tail and heavy hooked beak.

Obviously similar in size and design are the two figures from Mound City (Pl. LXXII). Minor differences, however, occur in the outline of the body and contour of the large wing with associated stamped details. In one figure (Pl. LXXII, fig. 91), the incised upper line of the body counterbalances the curve of the breast, while in the other figure (Pl. LXXII, fig. 92), this line begins to curve upward, then swings downward in a graceful curve echoing the low contour of the breast. Whereas a series of stamped circles and ovals extend across the wing surface of the latter, the other specimen is treated with a pattern of two large semi-circles enclosing a series of parallel lines.

The functional role of the body parts is made clear by the linear accents in the design which also stress the expressive importance of the effigy's head. These incised details disturb the planimetric effect and give the slightest illusion of depth just enough to ruffle the surface. Various markings are identical to those on the effigy pipes of type B. This relationship is apparent, for instance, with the Hawk pipe (Pl. XII, fig. 21) in such features as the large circular eye, striations on the head, and characteristic facial detail of a line extending from the corner of the eye across the face, finally encircling the breast. Chevron markings along the front of the breast also recall those on the Hawk and other
fig. 91. Cut-out effigy, copper, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio

fig. 92. Cut-out effigy, copper, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio
platform pipes. But in contrast to the static quality of the effigy pipes, these are shown as actively flying.

A related group of birds cut from copper were found at the Hopewell Mound Group (Pl. LXXIII, fig. 93). They are depicted with a longer pointed beak and simpler less prominent feather groupings, suggestive of the crow. This form is stylistically affiliated with the other two forms evident in the naturalism of proportion, fullness of body, selection of the essential features and excellence of technique. Unfortunately, the surface is too badly corroded to determine the presence of stamped motifs.

An unusual example of this style is the eagle cut from copper with the long narrow elliptical shape of the body deeply convexed from front to back (Pl. LXXIV, fig. 94). The head, however, is identical in design to the preceding eagle figures from the same site, as seen in the same partly open mouth, large eyes and associated facial details. These details are not incised as in the other figures, rather described in a repoussé technique leaving low ridges on the surface. Although the body is a stylized shape, the sculptor attempted to depict on the surface the common feathered groupings. This is apparent by the chevron motifs at the left side of the form, followed by a brief scale-like pattern near the center and finally a series of circles as those on the eagle. (Pl. LXXII, fig. 91).

Important aspects of this carving are the features of style 1 applied to an unusual shaped figure probably employed for a specific purpose.
fig. 93. Cut-out effigy, copper, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
fig. 94. Cut-out effigy, copper, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio
Continuing in the naturalistic vein of style 1 are the four forms of a fish found in the Hopewell Mound Group (Pl. LXXV, fig. 95). Again only minor variations among them in size, and shape of several features such as the mouth and fins, suggest that one form was traced from another. The essential parts of the fish are portrayed with simple rounded shapes that heighten the immediate and direct apprehension of the figure making it possible to identify its relationship to the sucker family. Nevertheless, the common stylistic elements are stated by the full rounded body, large circular eye, incised curving lines of gill and tail and the cleanly cut contours.

More simply portrayed than the previous forms is an animal cut from fragile mica (Pl. LXXVI, fig. 96). It represents a bear, rabbit or other mammal species with articulated legs and haunched torso suggesting the feeling of a running movement. The naturalistic features of style 1 appear in the contour of the head with projecting ear, slight raised ridge above the eyes, rounded snout and line of the underside of the neck which is continued in line with the stomach. The full rounded body and life-like quality affiliates this figure with style 1.

One of the most energetic and effective examples of style 1 is the representation of the serpent or snake cut from mica (Pl. LXXVII, fig. 97). It is the largest figure of this group measuring about fourteen inches in length. The coiled body and open mouth successfully convey the impression of the creature's immediate intent to strike, and though found in a
fig. 95. Cut-out effigy, copper, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
fig. 96. Cut-out effigy, mica, Tremper Mound, Ohio; Ohio State Museum, Columbus, Ohio
fragmentary condition the incised surface details are still apparent. These incisions indicate the large oval eye with two perforations in the center, parallel line along the lower jaw curving around at the end and concentric circles behind the head with parallel lines extending to the body. Stylistic features include the substantial body, life-like proportions and rounded rendering of parts. Except for the rattlesnakes incised on stone, this is the only surviving serpent representation found among the Hopewellian people.

More compact in treatment are a series of rattlesnake figures incised on several sandstone tablets (Pl. LXXVIII, fig. 98). This is one of four specimens found at the Hopewell site homogeneous in size, shape and design, and identically incised on both faces of the tablet. Technically, they are reminiscent to the designs incised on pottery, whereby the form itself is smooth surfaced and set in relief by roughening the background. This undercutting characteristically ranges from striations to a cross-hatched treatment. The body is simply decorated by a continuous finely incised undulating line representing the variegated pattern of the skin. The sectioned or rattle-like tail is defined by deep undercutting recalling that of the three-dimensional hollow effigies of the quadruped (Pl. XLIII, fig. 56) and fish (Pl. XLV, fig. 58).

Four human representations of style 1 consist of one pair each of copper and mica forms (Pl. LXXIX, figs. 99, 100; Pl. LXXX, figs. 101, 102). Homogeneous in size, shape and design, the figures stand in a frontal pose with the legs and
fig. 98. Engraved tablet, sandstone, Hopewell Mound Group, Ohio; American Museum of Natural History, New York
fig. 99. Cut-out effigy, copper, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio

fig. 100. Cut-out effigy, copper, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 101. Cut-out effigy, mica, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 102. Cut-out effigy, mica, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
feet turned outwards. They bear an excellence of technique shown in the definite clean-cut contours.

They are proportionately tall figures with broad rounded shoulder and narrow torso curving outward at the thighs and continuing to the full curving legs articulated at the knees. The lucid flowing contour encloses the swelling parts of the form. In general proportions and design they resemble the Turner figures, particularly the large standing male figure (Pl. XLIX, fig. 62). It is interesting to note that although the pair of mica and copper forms were respectively found at two sites, they are similar in size and design. The relationship between carvings from these two sites is repeated in other works which indicates the practice of copying or the existence of a basic design pattern.

Isolated carvings of bird wings, and human and animal hands and claws are cut from shell, copper and mica. Except for the incised treatment on the shell wings, the surfaces of the other pieces are left unmarked. Several anatomical elements as claws and pads have been depicted in the geometric designs, probably possessing some meaning.

One of the most delicate Hopewellian carvings of this naturalistic style are the three engraved tortoise shell pieces representing the wings of a bird (Pl. LXXXI, fig. 103). Two of the wings are similar with a scalloped design at the base and a series of parallel lines above extending to the edge. This pattern of scalloped and straight lines is observed as one of the favorite motifs in the treatment of wings on effigy
fig. 103. Engraved shapes, tortoise shell, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
bird pipes of type B. The concise ovoid shape of the other piece is incised with a more complex design. It is symmetrically conceived with corresponding parts disposed on either side of an implied central axis. Basically it consists of a series of circles, ovals and curved lines ending in long loops and scalloped lines. Several identical motifs have been carved on bone and stone but in different combinations. This specimen remains as one of the most effective and sensitive carvings of Hopewellian art.

The human hands and animal claws in copper and mica are depicted in a rounded finely executed style, (Pl. LXXXII, LXXXIII, LXXXIV, LXXXV). These hands are of the right member evident in the position of the thumb. Circular marks on the surfaces of the copper examples (Pl. LXXXIII, fig. 106), that at first appear as knuckles, actually resulted from the hammered technique. While being pounded into thin sheets, several small holes opened across the surface. They were repaired by the insertion of copper plugs riveted on both sides. The life like rendering leads one to imagine that the hand was either placed upon the surface and outlines, or a stencil was used and the form cut out with a sharp instrument.

Identical in size to the mica hand is the large eagle's claw cut from the same material (Pl. LXXXIV, fig. 106). Characteristically, it is depicted as flattened out in full profile with the parts generally rendered in a curvilinear fashion. The rhythmic movement of the design is formed by the staggered size of the claws echoing the small enclosed
fig. 104. Cut-out hand, mica, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 105. Cut-out hands, copper, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 106. Cut-out claw, mica, Hopewell Round Group, Ohio; Ohio State Museum, Columbus, Ohio
Another example of this style is one of several claws of a bear cut from copper (Pl. LXXXV, fig. 107). The full, round symmetrical aspects of the form appealed to the Hopewell sculptor's aesthetic sense. This is readily apparent in the frequent appearance of the form with many of the geometric designs engraved on a variety of materials. For instance, it is seen as the lower element of a design engraved on bone elaborated with circles and dots (Pl. LXXXVI, fig. 108); and cut from the surface of a copper headdress (Pl. LXXVI, fig. 109). The frequency of this motif described on a wide variety of materials, suggests the probability of some ritualistic or magical potency imbued in the designs.

**Style 2**

This style is distinguished from the complete naturalistic intent of the above group by those forms carved in a combination of naturalistic and conventionalized parts; head naturalistic and the body stylized into a simple curvilinear shape. This treatment frequently imbues the figure with an expressive rhythmic movement. Human, animal and birds are represented, carved from mica, copper, shell and engraved on pottery vessels. These effigies are depicted individually except for the bird forms which are occasionally paired. This paired combination, either in confrontation positions, is a readily recognizable motif of Hopewellian art. An underlying symmetry pervades the style giving the design an order and
fig. 107. Cut-out claw, copper, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 108. Engraved design, bone, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois

fig. 109. Headdress, copper, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
regularity. This symmetrical concern has been observed as one of the basic characteristics of Hopewellian art.

Representative of this style are five identical figures of a bear cut from mica (Pl. LXXXVII, fig. 110). The head is realistically delineated while the body is stylistically portrayed. Facial features consist of a wide forehead flowing into a block-like snout and tab-like ears that recall the figure of the rabbit cut from mica (Pl. LXXVI, fig. 96). The eye is depicted by black painting and accented by the surrounding incised line of the socket, while the nose is correspondingly treated with painted nostrils bordered by an incised line. This use of incisions and painting is continued on the body itself. For instance, a red band extends from the ear to behind the shoulders, where it is bordered by an incised round line. The same color is applied from this point to the base enclosing a series of circles set in relief. These figures illustrate the most extensive use of surface painting in two-dimensional sculpture.

Human representations of this style are illustrated by two examples of a head cut from mica (Pl. LXXXVIII, fig. 111). They are both identical in size and design and comparatively large in size measuring five and one-fourth inches in height. Stylistically conceived, the features are markedly exaggerated as the long protruding nose, wide mouth, enlarged perforated eye and headdress cutting off the back part of the head. Incisions appear on the surface as the incised eyebrow curving
around beneath the eye, concentric line of the lips and division of the headdress into three strands. The skillful technique admirably conveys the vigorous quality of the style.

Another human example is the copper carving of the anthropomorphic man with a human head and stylized body, (Pl. LXXXIX, fig. 112). The naturalistic facial features are described by the high sloping forehead, inward break of the bridge, long nose, full fleshy lips and around recessed chin. The protuberance of the headdress is reminiscent to several three-dimensional figures from the Turner and Knight Mound groups. The conventionalized body, which has not been completely restored consists of the round curvilinear shapes of a wing-like section and slender body ending in a wide round curve. The pair of projecting parts below, perhaps representing arms, correspond to the design of the following double-headed eagle forms.

Distinctive of the expressive rhythmic quality of style 2 is the form of the trumpeter swan cut from tortoise shell (Pl. LXXXX, fig. 113). Depicted is an open design, the body is stylistically treated with the parts echoing the strong backward swing of the head and neck. The head is delicately carved with a circular eye and open pointed beak that increases the life-like affect of the effigy. This rhythm is continued in the lucid tapering of the neck into the swelling breast. Immediately behind the head is the ovoid body followed by the large wing and diamond-shaped tail. The reduction of the body to a narrow rounded element is seen in the following variations
fig. 112. Cut-out effigy, copper, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 113. Cut-out effigy, tortoise shell, Seip Mound, Ohio; Ohio State Museum, Columbus, Ohio
cut from copper and also incised on pottery. This is one of the most sensitive Hopewellian carvings successfully executed in a very fragile material.

A development from this singular representation of a bird effigy are the similar series of paired bird forms both cut out and incised on copper. An example of the former technique are the three identical carvings of the double-headed eagle (Pl. XCI, fig. 114). Symmetrically conceived, the heads are typically shaped with the long open notched beak and smooth flowing line of the head integrated with a conventionalized body. The body forms consist of an upper and lower pair of projecting elements which schematically represent the structure and feathers. These projections recall the design of the above swan, where between the head and feathers, the back is simplified into an ovoid shape.

A more elaborate development of this form are the two pairs of eagles incised on a copper plaque in reversed confrontation positions, (Pl. XCII, fig. 115). Symmetrically conceived, the design is divided into four equal areas with corresponding parts arranged on either side of an implied horizontal and vertical line. Again the features consist of a long open hooked beak, circular eye and rounded head flowing into a serpentine body. The bodies are also reduced to round curvilinear shapes with no suggestion of bird-like characteristics. As in the preceding figure, the body projects upward beneath the beak, while the projection of the back is shown as
fig. 114. Cut-out effigy, copper, Mound City Group, Ohio, Ohio State Museum, Columbus, Ohio
fig. 115. Engraved tablet, copper, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio
a singular element on each pair of joined birds. Variations of this motif are apparent on the designs of pottery from Louisiana to be subsequently discussed. A constant feature of this style is the uniform width of the body and interior spaces throughout the design. Moreover, it is continued in the even placement of the design on the surface with equal space on all sides.

Distinctive of style 2 are the figurative designs engraved on pottery vessels, primarily from the Ohio and Louisiana region. Birds are commonly represented, such as the eagle and spoonbill duck. Depicted individually or paired in confronting or reversed confrontation positions, the figure is defined in the characteristic motif of a simplified head and body conventionalized into a long curving serpentine form. This design is remarkably similar to the above figure incised on copper. A continuous groove or pitting outlines the form, made by trailing a round end tool through the clay while still plastic. In contrast, the background area was roughened by parallel rows of shallow depressions made by a rocking instru-

1These vessels present only a fraction of the total pottery manufactured which included both utilitarian and cooking vessels. The decorative (figurative) vessels were either associated with the funerary deposit or used in non-burial facets of the culture, nevertheless, they were undoubtedly of more than ordinary significance. They were made in the coiling method common to the Eastern United States and fashioned into a great variety of shapes. Features include thin walls, rims decorated with finely incised cross-hatching or vertical lines and bordered beneath by a row of punctates.
ment. This roughening places the sharply delineated effigy in relief, almost as a cut-out shape. As in other designs, the width of the effigy and the spaces between remain generally constant and uniform throughout the design.

There is a marked distinction in style between the Ohio and Louisiana Marksville vessels. Those from the former region (Pl. XCIII, fig. 116; Pl. XCIV, figs. 117, 118), are more rigidly arranged with an individual effigy within zoned sections. Placed in these sections, the effigy contains equal space on all sides. The form naturally conforms to the space with the contour of the wings and body repeating the line of the border. They are clearly portrayed in space as individual entities and either follow each other in sequence around the four sides, or else are arranged in confronting pairs. In content they include both the spoonbill duck and the eagle, the former representation non-existent in Louisiana.

Characteristically, the effigies are remarkable homogeneous in design, with only minor distinctions noted in the

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1 Ohio vessels are flat based or contain tetrapodal supports, whereas, the southern examples are universally flat. Tempering material of the former consists of grit, pulverized potsherds and limestone. In the south it is composed of grit and shell, the latter because of its availability.

2 Greenman, 1938, p. 332. The author illustrates an unusual vessel of composite globular shape that was found at the Harness Mound. It is reminiscent of the Marksville examples both in its vessel shape and incised surface designs. The designs consist of a geometric arrangement of nested triangles at one end and a highly conventionalized bird design at the opposite end. The vessel is in the Peabody Museum, Harvard University, Cambridge, Mass.
fig. 116. Engraved vessel, clay, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 117. Engraved vessel, clay, Mound City Group, Ohio; Location unknown
fig. 118. Engraved vessel, clay, Mound City Group, Ohio; Location unknown
curved beak of one figure (Pl. XCIV, fig. 118) reminiscent to those from Louisiana. The body is reduced to its simplest geometric terms with the rounded head leading to a curved neck that extends slightly beyond the beak before it abruptly drops downward in a slightly wider band representing the body. Emerging from this band is the triangular shape of the wings. The width of this open design remains generally constant throughout. Consistently, the eye of the effigy is represented by a large circle, while the flat beak of the spoonbill duck is decorated with an incised border and pair of depressions.

In contrast to the Ohio vessels, the designs on the Louisiana specimens form an all-over continuous pattern, (Pl. XCV, fig. 119; Pl. XCVI, fig. 120, 121). There is no pronounced division into individual registers as among the former specimens, rather, the design is a repeat, sometimes with the elements between the effigies implying a break. Homogeneous in design, these effigies are large in scale with the interspices filled with secondary motifs thereby making a complicated coverage though not actually a dense pattern. The forms are understood as moving and return upon themselves in a rotational system. Emerging from the base and extending to the horizontal line of the border, the design becomes an integral part of the vessel. Every element is harmoniously related to every other element creating an integrated rhythmic design. Bird heads are either depicted by a continuous line describing the curving beak and prominent eye or are constructed in two parts with a single line forming both the eye and lower beak and another
fig. 119. Engraved vessel, clay, Marksville Mound Group, Louisiana; Smithsonian Institution, Washington, D.C.
fig. 120. Engraved vessel, clay, Marksville Mound Group, Louisiana; Smithsonian Institution, Washington, D.C.

fig. 121. Engraved vessel, clay, Marksville Mound Group, Louisiana; Smithsonian Institution, Washington, D.C.
portraying the upper head and beak.

Forms are not portrayed with the clear cut parts of the Ohio figures, but are rather highly conventionalized serpentine shapes ranging from identifiable forms to those reduced to the most simple terms.

Homogeneous in design and treatment to the Marksville style are two vessels found in Avoyelles Parish, Louisiana (Pl. XCVII, XCVIII). For example, there is an obvious similarity between the effigy design on vessel (Pl. XCVII, fig. 122) with the Marksville example (Pl. XCV, fig. 119), while minor differences are noted in the vessel shape and decorative motifs. Although crudely applied with irregular outlines, the effigy head of the former design is also identical in treatment to those on vessels (Pl. XCVI, fig. 121). An interesting variation done in this characteristic skillfull style, consists of a pair of confronting birds shown on the four sides of a straight sided bowl (Pl. XCVIII, fig. 123). The heads are joined at the top and the individual bodies represented by a central vertical member. Reminiscent of the Ohio examples from Mound City are the triangular shaped wings that taper to the base, but here their shape is repeated by interior concentric elements.

A modified design of two pairs of confronting birds was incised on a vessel from Mississippi (Pl. XCXXII, fig. 124). Although not as moving and energetic as those from the Marksville region, it recalls the design of vessel (Pl. XCV, fig. 119).
fig. 122. Engraved vessel, clay, Avoyelles Parish, Louisiana; Location unknown
fig. 123. Engraved vessel, clay, Avoyelles Parish, Louisiana; Location unknown
fig. 124. Engraved vessel, clay, Bynum Mound, Mississippi; Smithsonian Institution, Washington, D.C.
The heads, however, are facing upward, while the serpentine body bends backward in an almost straight line imbuing the design with a certain rigidity. Emerging from this point and echoing the shape of the body is a triangular pointed band filling the space as in vessel (Pl. XCVI, fig. 120). Generally, the design is more stifferly conceived than those from the Marksville site, but the close resemblance of the design indicates a peripheral style.

Combining both northern and southern Hopewellian elements is the spoonbill duck incised on a pottery fragment found in Illinois (Pl. C, fig. 125). Incised facial features recall examples from Mound City but differs in position with the head facing upward to the rim as in the above Mississippi example. The moving sinuous shape of the body, however, is identical to those figures from Louisiana. This is the only design from a northern Hopewell site to show a definite affiliation with the Marksville style.

**Style 3**

Highly conventionalized forms, occasionally bordering on the limit of abstraction, are distinctive of style 3.

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1. Further similarities to the Marksville ware include the globular bowl, cross hatched rim bordered by a row of punctates, background roughening and a flat base.

2. Griffing, 1952, p. 117. The author illustrates a similar design on a fragment from southern Illinois, but much smaller in size.
fig. 125. Engraved potsherd, clay, Snyder Site, Illinois; University of Michigan, Ann Arbor, Michigan
Animal and human forms are represented, carved in bone, copper and shell materials. The effigy is invariably combined with decorative incised elements which frequently make its identification temporarily indistinguishable. The design is composed of curvilinear lines, circles and ovals with straight lines rarely employed. These decorative elements are combined either within the form or exterior to it yet retaining a harmonious unity of the whole. In some cases the design conforms to a basic symmetry while in other patterns, as those engraved completely around bone, there is some attempt to arrange the designs into irregular registers by means of straight lines. Occasionally, the conventionalization progresses to the point where the figure is dismembered and reassembled nearer to the artist's aesthetic desires. In this process the reconstruction of the form is apt to be continued, not merely for the predominance in the total effect of the most typical and expressive members, but also to achieve a form which in itself has power to contribute to the same end. The final rendering is the concerted essence of the real creature from which the design issued and at the same time a composition that as an abstract pattern has expressive force.

An important example of this style is the convention-

Willoughby, 1922, p. 12. Decorative fragments of carved bones from the Turner site are so highly conventionalized that they approach abstract designs. One fragment, however, depicts a decorative bird with the identifiable and conventionalized body characteristic of this style.
alized human head or mask engraved on a human thigh bone (Pl. Cl, fig. 126). The design curves around and extends the complete length of the bone. Perfectly symmetrical and well-organized, the implied verticals at front and rear are strongly felt. For instance, in the front, it extends from the scalloped upper border, between the incised antlers, along the nose and ending at the base.

Technically, the design is lightly incised on the surface with the positive areas picked out by cross-hatching. The facial features are schematically described, such as, the two circles and central dots representing eyes, central vertical path standing for the nose, nostrils suggested by the horizontal cross-hatched bands, and mouth shown by a comparatively ovoid shape with horizontal and vertical lines representing teeth. The vigorous expression is heightened by the contracted cheeks described by a curved incised line extending outward from the nostrils and echoed above by a line trailing downward from the eye. Curving over the head is a large hanging headdress with rounded ends while emerging from the top are a pair of wide curving antlers. Defined by cross-hatching, they conform to a free curvilinear design, which equals the width of the hanging headdress. Correspondingly interspersed among the design are circles, ovals and curvilinear shapes that emerge from the basic contour lines, as the headdress and lower border and accented by cross-hatching. This profusion of decorative elements, which in some cases may represent orna-
fig. 126. Engraved design, bone, Hopewell mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
mental additions on the headdress or mask-like face, are harmoniously controlled within the design.

The exact representation intended may never be known, nevertheless the unique conventionalization strongly suggests some significant meaning, as a tribal priest or an honored member now deceased.¹

A somewhat similar design is the feline engraved on human bone (Pl. CII, fig. 127). The surface decoration is more completely enclosed within the contour of the form itself, leaving the surrounding area plain. Technically, however, the dark areas are filled with striations instead of the cross-hatching of the above design. Although the body section is largely missing, enough remains to distinguish the flexed leg ending in a long pointed claw. The decorative surface elements of lines and circles simulating stripes and spots, are also present on several effigy pipes but in a more naturalistic and ordered arrangement. A distinctive feature commonly seen in this style is the emergence of the dark areas from the basic contour. For instance, this is seen by the line growing out of the front part of the chest, emphasized part way by striations and extending upward echoing both the front and rear part

¹ Copper headdresses with attached antlers are of infrequent but important occurrence in northern Hopewell mounds. For instance, found in the same mound as this engraved bone, was an elaborately dressed skeleton associated with a wide variety of sculptural materials and wearing a similar type headdress. Shetrone, 1926, p. 179.
fig. 127. Engraved design, bone, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
of the figure before curving beneath the eye to end at the nose. Another line continues from the upper jaw around the corner of the mouth to curve beneath the lower jaw where it is filled in by striations.

Stylistically consistent with style 3 are the conventionalized anatomical parts reduced to identifiable curving rounded lines combined with decorative filling details.

A more involved and compressed design distinctive of this style is the bird drawn as an integral part of an all-over decorative pattern (Pl. CIII, fig. 128). The design conforms to a somewhat ordered arrangement of define registers with alternate areas frequently accented by an even series of striations.

The effigy harmoniously engraved with the surrounding decorative area as seen by the surrounding lines repeating the outline of the bird. The figure is identified by its long open beak partly decorated at the end, circular eye with dot for pupil, and concentric loop-like shape falling behind the eyes, faintly recalling the facial details on the eagles of style 1 and the effigy platform pipes of type B. Another concentric ovoid shape fills in the space similar to the treatment of the geometric elements, particularly in the lower register. This feature of filling in areas with compressed ovoid shapes is repeated throughout the design and is also common in the geometric designs (Pl. LXXVI, fig. 108). The design is a constantly moving and evolving one combined in a unified arrangement with the simplified rendering of the effigy.
fig. 128. Engraved design, bone, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
An important example of this style are the two birds engraved on an animal bone (Pl. CIV, fig. 129). Technically, the surface treatment ranges from light incisions to undercutting, emphasized by the deep punctates of the eyes. The effigies are correspondingly placed at each end of the bone, with the central area divided by a wide plain band. The figures are depicted with rounded heads and long simplified beaks separated from the upper part of the body by undercutting but subtly connected along the lower breast. The neck and body is represented by a narrow graceful curved band recalling the feature on eagles of style 2 (Pl. XCII, fig. 115; Pl. XCV, fig. 119). The wings, however, are shown by a concentric series of narrow bands integrated with the body in a graceful curvilinear design. This stylization of the wing is frequent decorative motif and serves to illustrate the modification of a naturalistic form into a decorative design. Along the base of the bone are a series of five undercut shapes representing bear canine teeth which probably imbued the bird with some significant meaning. The surrounding area of the effigy is filled in with a series of alternating cross-hatched bands, while behind the effigy similar alternating bands repeat the shape of the head and mark a transition to the wing.

Two identical drastically reduced designs were engraved on equal sized bones (Pl. CV, fig. 130). Only one side of the bone was engraved, with the rear portion plain and highly polished. Technically, the design was left in low
fig. 129. Engraved design, bone, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
fig. 130. Engraved design, bone, Edward Harness Mound, Ohio; Ohio State Museum, Columbus, Ohio
relief with the background cut and ground away. The effigy bird head at one side of the bone consists of a long pointed beak with no indication of a head as such. Facial details are limited to a circular eye and markings on the beak are both accented by striations. At the other side of the bone are a series of lines with a concentric oval in the center. Although the relation of this design to the head is not clear, the motif is reminiscent of feather groupings and may indicate an attempt to show additional characteristics of the bird. The simplified dismemberment and reconstruction of anatomical elements are distinctive of this style.

An unusual example of this style is an identical design engraved on two parietal bones of the human skull (Pl. CVI, Fig. 131). It depicts a combination of two effigies a bear or feline and two birds with the large beak of the eagle. The bones are homogeneous in size and shape while the identical designs are in reversed positions.

Again the design conforms to a basic symmetry with a series of horizontal and vertical lines dividing it into registers. Centrally placed in the upper registers is the ovoid animal head divided into four parts and alternately decorated with cross-hatching. Emerging from the side of the head are large pointed eyes with a central dot representing pupils. The lower part of the face is schematically represented by a circular shape enclosing a small circle probably standing for the nose. Beneath the horizontal line at this point the
fig. 131. Engraved design, bone, Turner Mound Group, Ohio; Peabody Museum, Cambridge, Mass.
body is non-existent, but is implied by the long undulating
shapes of the legs with sharply pointed nails that extend to
the edge of the bone. The combination of plain and cross-
hatched elements with the latter emerging from the contour of
the figure, was also observed on the engraved human head
(Pl. CI, fig. 126). Other similarities between these figures
are the central position of the effigy established by implied
and stated horizontal and vertical lines and the general curvi-
linear treatment of the design.

The sculptor attempted to represent a frontal view
and select the essential characteristics that convey the idea.
Although the parts, as legs and eyes, were dismembered, they
were recombined into a conventionalized design which conveys
the idea of an effigy.

Along the right side of the lower register and emerging
from the basic contour of the edge of the disc, is the head
of a bird. The mouth is typically shown as parted with the
wide hooked beak and large circular eye with central dot.
Conforming to the alternating system of undercutting, the lower
beak is decorated while the upper is plain. The element at the
opposite side is indistinguishable but the circular eye attach-
ed to a narrow cross-hatched band are reminiscent of another
bird. A concentric arc curves around the upper register with
regularly spaced round elements growing out of the line and
singular tendrils swing from the corners.

Known only from an old drawing is a complex design
engraved on bone (Pl. CVII, fig. 132 a,b,c). Highly conventionalized and intricately handled, it reveals various features in common with the Hopewellian style, such as round curvilinear elements conforming to a rhythmic harmonious design. At the wider end of the bone is a bear-like effigy shown in a flattened upper view with pointed ovoid eyes, broad tapering snout with prominent nose, and large canine teeth protruding from the sides of the snout. Intricately emerging from the effigy and filling the opposite half of the bone, are conventionalized elements which elude identification. Further analysis is of limited value, due to the lack of information concerning the whereabouts of the object and the site itself, besides several unusual aspects of the design.

The only surviving representations of a fish belonging to this style are two similar examples cut from shell and animal bone (Pl. CVIII, figs. 133, 134). Homogeneous in size and design, the bottom edge of both is cut into a saw tooth pattern and may represent fins. The degree of conventionalization is apparent when compared with the naturalistic effigies of style 1. Similar features among these two figures include the full body, lower projection of the head, large circular eye and round dorsal fin. The cut out comma shape behind the

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Gordon, 1906, p. 103. This drawing was found in an uncatalogued collection of miscellaneous prints in the University of Pennsylvania Museum. Across the upper margin was written "Four view of a sculptured bone (supposed to be the femur of an Elk), found in an ancient Indian grave or barrow, in the town of Cincinnati, on the River Ohio, 1801."
fig. 132. Engraved design, bone, Cincinnati, Ohio; Location unknown
fig. 133. Cut-out effigy, tortoise shell, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio

fig. 134. Cut-out effigy, bone, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
head of the figure is continued in the other figure by a graceful curve to the top of the head. It probably represents a fin as does the projection near the tail section. The in-line circles on the shell figure have tended originally to confuse the identity of the form in the published report, but as shown here, it was apparently based upon an initiating fish form.

The only example of this style cut from the surface of a copper plaque, represents a highly conventionalized design of two bird effigies in reversed confrontation positions (Pl. CIX, fig. 135). The design is symmetrically divided into equal parts by the short horizontal band and implied vertical line between the birds that intersect in the center. The rounded bird heads are drastically reduced to simple rounded projections of the beak with the eyes represented by large circles. On the other hand, the bodies consist of rounded curvilinear shapes that echo and counterbalance each other in a harmonious unified design. The conventionalization bears some overtones in style with the design on the vessel (Pl. XCIII, fig. 116). This is seen in the long neck curving around beneath the beak into the vertical shape of the body with projections at each end. Again, the figure is surrounded by the uniform width of the border which remains constant throughout the whole design.

Bordering on the limit of abstraction are a group of copper forms found at the Hopewell Mound Group (Pl. CA, figs. 136,137). The contours are remarkably smooth while the surfaces
fig. 135. Cut-out design, copper, Mound City Group, Ohio; Ohio State Museum, Columbus, Ohio
fig. 136. Cut-out design, copper, Hopewell Mound Group, Ohio; Ohio State Museum, Columbus, Ohio

fig. 137. Cut-out designs, copper, Hopewell Mound Group, Ohio; Chicago Natural History Museum, Chicago, Illinois
are perforated and cut into various shapes. Most intricately
designed, is the form (Pl. CX, fig. 136) probably represent-
ing a serpent's head, indicated by the tapering shape of the
nose followed by two pairs of circular eyes perforated in the
center, the latter pair at the opposite end of the piece.
Facial markings are highly schematic, however, the design
conforms to the strict symmetry, retaining a consistent width
of the border around the edge. A separate long "Y" shaped
piece of copper found nearby, is assumed to be an associated
addition depicting a projecting tongue or fangs. This highly
imaginative piece exhibits the extensive range of adaptations
and explorations in Hopewell art.

The other more simplified designs defy identification,
but stylistically, they are symmetrically conceived with
characteristic round curving parts. Furthermore, the perfect
symmetry of the designs strongly suggests the use of a bark
stencil. The long curving tails of the figure at the left
are somewhat reminiscent of the body of the anthropomorphic
human figure (Pl. LXXXIX, fig. 112), while the lower example
conveys the idea of a stylized human face with features indi-
cated by perforations for eyes, nose and mouth.

Two interesting designs were engraved on pottery
vessels from Illinois (Pl. CXI, figs. 138,139). The design
on one vessel (Pl. CXI, fig. 138) reveals four schematic face-
like designs around the side of the bowl with identical pairs
on opposing sides. Although large circles represent eyes of
both figures, the features are alternatingly composed of a
fig. 139. Engraved vessel, clay, Havana Site, Illinois; Illinois State Museum, Springfield, Illinois
broad nose with concave base followed beneath by a small semi-circular mouth, whereas, between the eyes of the other figure is a long undulating shape of the nose enclosing a concentric circle at the base perhaps signifying a mouth. Stylistically, this repeat design is composed of rounded shapes characteristic of Hopewell art with equally spaced elements in a harmonious arrangement. It cannot be definitely established that human representations were intended, however, the strong resemblance makes it worthy of consideration.

The other unusually design on vessel (Pl. CXI, fig.139) bears a narrative or story on the surface. Characteristically, the design is arranged into four zones by a double undulating line with the symbols above and below. Alternating with two human footprints of the right and left feet are two shield-shaped motifs with projections at the corners suggestive of bird heads. Bird tracks concentrically arranged beneath the horizontal dividing line, face in the direction of the human feet, as if being stalked. Finally, between the shields are two rectangular areas consisting of a series of depressions possibly signifying foliage or a body of water. Although suggestive of innumerable interpretations, this design remains unique in Hopewell art.

1 This shield motif resembles two copper forms found at the Mound City Group, Ohio. The latter are similarly shaped with identical rounded projections at the three above corners suggestive of bird heads. Mills, 1922, p. 519.
CHAPTER III
REGIONAL DISTRIBUTION OF STYLES
All but a few specimens considered in this paper are documented as having been found at mound excavations. It is therefore possible from an analysis of the sculpture to characterize the regional styles in Hopewellian art. Furthermore, important relationships and distinctions can be demonstrated between many mound sites.

Three major art areas are recognizable; Ohio, Illinois, and Louisiana. In addition, sporadic finds have been recorded from the minor area of Indiana. These areas vary in the amount of figurative sculpture, i.e., eighty-five of the one-hundred and ten figurative carvings examined in this paper were found in Ohio with thirteen examples from Illinois and eight from Louisiana. The importance of the Ohio area is increased by the presence of the five basic classes of Hopewellian sculpture, whereas, the two other major areas are distinctive by only one to three types. Among these regions, as a whole, there is a marked disproportion of three and two-dimensional sculpture. In Ohio there are many more three-dimensional than two-dimensional sculptural examples, while in Illinois all but one specimen is carved in round. The opposite is true, however, at Louisiana where the large majority of examples consist of engravings on pottery.

In the selection of materials, the Ohio sites are the most complex with materials obtained both locally and from distant regions. Of the wide variety employed, stone was the most common. Several sites tended to excel in one or more materials, particularly, the Hopewell Mound Group which is
### Three-Dimensional Sculpture

**Distribution of Types and Styles by Areas and Sites**

<table>
<thead>
<tr>
<th>Areas</th>
<th>Platform Pipes</th>
<th>Hollow Effigies</th>
<th>Human Figurines</th>
<th>Human Heads</th>
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</tbody>
</table>

**Ohio**

- Hopewell Mounds: x  x  x  x  x  x
- Mound City: x  x  x  x
- Turner Mounds: x  x  x
- Seip Mounds: x  x  x  x
- Tremper Mound: x  x  x
- Harness Mound: x

**Illinois**

- Knight Mounds: x
- Wilson Mounds: x  x
- Whitnah Site: x
- Baehr Mounds: x
- Ogden-Fettie: x
- Liverpool: x
- Twenhafel Site: x
- Steuben Village: x

**Louisiana**

- Marksville: x
- Crooks: x  x
## Three-Dimensional Sculpture—continued

### Distribution of Types and Styles by Areas and Sites

<table>
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<tr>
<th>Areas</th>
<th>Type Style</th>
<th>Platform Pipes</th>
<th>Hollow Effigies</th>
<th>Human Figurines</th>
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<tr>
<td>Portage Co.</td>
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1. Transitional in design between types B and C.
## Two-Dimensional Sculpture

### Distribution of Styles and Material by Areas and Sites

**Areas:** 1) Ohio  2) Illinois  3) Louisiana  4) Mississippi

<table>
<thead>
<tr>
<th>Areas</th>
<th>Style 1</th>
<th>Style 2</th>
<th>Style 3</th>
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<tr>
<td>Bynum Mound</td>
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</table>
primarily represented by carvings in stone, bone, copper and mica. Other sites in this area are not as diversified, for instance at Mound City the majority of examples are carved from stone, clay and copper. Clay and stone prevail throughout Hopewellian regions outside of Ohio, and where foreign materials are present, such as copper and mica, they are either unworked or carved into utilitarian and decorative objects. No large size sculpture has been found in Hopewellian art. Figures are basically small in size, rarely exceeding eight inches in length or height.

Animal, bird and human forms are found at the three major areas. Of these, human figures are less common, whereas, the most frequent representation is the eagle with a long hooked beak. This figure is prevalent at Ohio and Louisiana but practically non-existent in Illinois. Usually the subject matter is represented singularly, while in some cases they are designed in combination with another form, as two human figures from the Knight Mound in Illinois and several animal carvings from mounds in Ohio.

Hopewellian sites are located along waterways generally in close proximity to each other. Consequently, among mound sites in all of the areas there was an apparent interchange of art objects and stylistic influences. To define the different styles at these major areas the sculptural material has been considered as a whole.
Ohio

Sculptural material from Ohio has been found at six sites concentrated in the southern part of the state. These representative examples are distributed as follows: 30 from the Hopewell Mound Group; 18 from the Mound City Group; 13 from the Turner Group; 17 from Tremper Mound; 10 from Seip and 2 from Edwin Harness Mound. This total grouping can be subdivided into the number of objects within each of the five basic classes of sculpture. Class 1 (platform pipes) includes the largest amount of sculpture with twenty-eight examples selected for study. Divided into two types, plain bowl, type A, and effigy bowl, type B, they are predominant at three sites; sixteen examples from the Tremper Mound, three from Mound City and two from the Hopewell Mound Group. Both types are present at the Tremper and Mound City sites, while only type A has been found at the Hopewell Mound Group.

Other types of carving are less common, for instance, class 2 (hollow effigies) consist of six examples from the Hopewell Mound Group, three from Seip and three from Turner. Class 3 is comprised of a fragmentary group of human figurines from the Turner Mound of which six permit analysis, while class 4 (human heads), are more widely distributed with four

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1 These sites lie along tributaries to the great Ohio River giving them relatively easy intercommunication. This makes any development at one site readily available to the others.

2 Five of these ten carvings have not been considered as they were apparently made elsewhere, (Pl. XII-XXIV).
### Total Distribution of Hopewellian Sculpture at Ohio Sites

<table>
<thead>
<tr>
<th></th>
<th>Hopewell Mound</th>
<th>Turner City Group</th>
<th>Seip Group</th>
<th>Tremper Group</th>
<th>Harnes Mound</th>
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1. Shetrone, 1931, p. 508. The above list was largely compiled from this report. For practical reasons there have been various revisions in listings of types and number of objects.

2. The exact number of pipes are questionable as the majority of specimens were broken and each fragment was tabulated as a separate pipe. Webb, 1945, p. 206. The author strongly believes that the number of pipes is actually much less than have been recorded.
examples from Mound City, four from the Hopewell Mound group and one each from the Seip and Harness Mounds. The last group, class 5, consists of two-dimensional figurative carvings. They are distributed as follows: 17 from the Hopewell Mound Group; 12 from Mound City; 4 from Turner; and one each from the Tremper, Seip and Harness Mounds.

This distribution reveals the importance of the Hopewell Mound Group and establishes it as the only site with a superiority, though slight, of two-dimensional forms. The greater importance of three and two-dimensional sculpture is seen both in the larger number of surviving examples and the similarities in design and details of many two-dimensional specimens to those carved in the round.

Stylistically, effigy pipes are the most remarkably homogeneous class of sculpture, while the plain bowl examples, type A, are comparatively distinct in design and proportion. Many of the later pipes from the Hopewell Mound Group and Mound City (Pl. VI) are broad and squat in shape expressing solidity and weight. Examples from the Hopewell Mound group, however, characteristically bear an incised line at the swelling of tobacco chamber, a feature non-existent on pipes from Mound City. Those from Tremper (Pl. V) are carved with taller and narrower bowls shaped with smooth flowing undulating contours which imbue the pipe with a greater feeling of lightness. In several examples from the

1 The greatest number of objects were found in Mound 25, which was the largest of the group.
latter site, where the dimensions of the pipe are greatly increased, there is a definite attempt to retain the same shapely characteristics.

The innumerable effigy pipes from Mound City and Tremper are present in almost equal numbers of style 1 and 2. Similar in size, design, proportion and technique, they depict animals familiar to the region. Although it is usually difficult to distinguish between them, several examples vary in treatment. For instance, effigy bird pipes from the Tremper Mound display a more sensitive delineation of feather motifs than those from Mound City. This more delicate handling is apparent in the distinction between the subtle range of feather textures of the Hawk Pipe (Pl. XII, fig. 21), to the sharper more definite markings on the Crow pipe from Mound City (Pl. XIII, fig. 22). Another general distinction appears in the more pronounced undercutting and careful modeling of parts on those figures from Mound City. This feature is particularly evident in the consistent all-over modeling of the body structure of the Frog (Pl. XIX, fig. 29), with parts clearly defined and well rounded. In contrast, parts of the Otter (Pl. XX, fig. 30) from the Temper Mound, such as head and hind legs, are more summarily

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Mills, 1922, p. 344. The author has demonstrated the occasional practice of depositing fragments of pipes which were deliberately broken or "killed" in several mounds of a group rather than placing them together in one mound. The innumerable fragments recovered from other sites make it difficult to determine the frequency of this trait.
rendered and with a lesser degree of roundness.

Of the three-dimensional carvings, effigy pipes are the most expressive and sculptural. Composed of the common Hopewellian characteristics of round full-bodied forms with a naturalistic modeling of parts and command of the incised technique, they may be considered the most basic three-dimensional style.

Other effigy pipes, as the two examples from the Hopewell Mound Group, types C (Pl. XXIX, fig. 39) and D (Pl. XXXI, fig. 41) are less life-like and more generalized in treatment, but share several features in common. Although pipes of type B are conspicuous by their absence at this site, these former examples are carved with the same smoothly integrated planes emphasized by highly polished surfaces. Portrayed in combination with another figure, they contrast with the singular representations from other sites. Attention is focused upon the head with prominent eyes and careful modeling of the beak. There is a generalized handling of form, without the sure understanding of the interior structure of the latter group of pipes, type B. Moreover, textural feather details are more deeply and rigidly incised in broad simple patterns. Closely affiliated to the two above figures is an undocumented example representing a wolf, found in Ross County, Ohio (Pl. XXX, fig. 40). Carved with the same stylistic characteristics of types C and D, it can be considered in the Hopewellian style. Compared with the pipes carved by the Mound City and Temper sculptors, the few examples from
the Hopewell Mound Group present a difference in concept, indicating a more subjective individual motivation.

Three-dimensional carvings from Mound City and Tremper are primarily represented by effigy pipes, whereas, eleven hollow effigy forms were found at three other sites; four from the Hopewell Mound Group, four from Seip and three from Turner. Generally, these forms are also small in size as the effigy pipes and essentially related to them in character. Examples from the Hopewell Mound Group are the most homogeneous (Pls. XXXV, fig. 47; Pl. XXXVI, fig. 48) and bear close similarities to the effigy pipes (type B). This is revealed in such features as fully rounded bodies, undercutting of wings and especially facial details as the notched beak, inlaid eyes and incised linear markings.

The three examples from the Seip Mound (Pl. XXXVIII, XXXIX, XL) are not as uniform in style and strongly suggest a different authorship. Although resembling the above group of figures in minor elements, they are not as fully rounded, tending towards a generalization of form and a less refined treatment. For instance, in the Owl figure (Pl. XXXVIII, fig. 50), feathers are grouped into separate units and modeled in relief, while the Vulture figure (Pl. XXXIX, fig. 51) is composed of flat angular parts with simple incised feather motifs. The Duck figure (Pl. XLII, fig. 55), however, is unusually distinct in treatment and conforms to another style. Modeled with a complete geometric reduction of form, distinct
from the naturalistic attempt of the above effigies, the parts are highly simplified with no details incised on the surface.

Three examples from the Turner Mound (Pl. XLIII-XLV) comprise the remaining hollow objects of which two are the largest in size of the group. Carved from stone and bone, they represent fantastic quadruped and fish-like forms with the prominent tail characteristic of a reptile. Dramatically conceived, the parts are stylized and sharply defined with exaggerated facial features. Decoratively treated surfaces emphasize their unusual character as cross-hatched bands or a series of incisions. In essential elements and treatment, these forms from the Turner Site are associated with the Hopewellian style, but as a whole remain basically distinct from other carvings in concept and appearance. Furthermore, they are very few surviving representations of birds, in contrast to their prevalence at the other mound sites.

The diversity of styles at many mound sites is illustrated by the only group of human figurines from Ohio found at the Turner Mound (Pl. XLVI-LII). Strongly naturalistic, they sharply contrast with the imaginative vigorous carvings from this site, such as, the above hollow effigies and mica figures. These human forms are modeled from a hard baked terra cotta enabling the surface to be brought to a high polish; a characteristic feature of three-dimensional Hopewellian sculpture. Stylistically, they are affiliated in
several respects with animal effigy carvings in the round from the Hopewell Mound Group, Mound City and Tremper. This is particularly evident in the naturalistic rendering of, for instance, the slender proportions of the male (Pl. XLIX, fig. 62) and the stocky fullness of the female figures (Pl. LI, fig. 65). The distinction between the sexes is accented by the careful delineation of the anatomical parts, dress and coiffure. Other stylistic features analogous to the animal forms include the rigid symmetry, balanced proportions, fully rounded forms, clarity of parts and smoothly integrated planes.

More common than the figurines are the ten isolated human heads found at other Ohio sites: (Pl.LX-LXVII) four examples each from the Hopewell Mound Group and Mound City, and single examples from the Seip and Harness Mounds. Stylistically, they are analogous to the above group of human figurines with the heads strongly naturalistic and generally similar to each other. This is seen in such features as large ovoid ears, long nose, short fleshy mouth and prominently modeled ears with several perforations along the outer edge. Although these heads are distinct in both modeling and facial features from the Turner figurines, they possess a minor relationship evident in the design of the enveloping coiffure which is occasionally gathered into a knot-like protuberance.

Except for a few exceptions, these carvings are
relatively plain in treatment. The most unusual example of the group is the elaborately incised pipe fragment from the Harness Mound (Pl. LXIII, fig. 78). It is questionable whether this carving was made here, as the only other sculptural material from this site consists of two identical carvings on bone, (Pl. CV, fig. 130) highly conventionalized in design and relatively crude in technique. Stylistically this pipe conforms to the broadly modeled planes and shape of the Mound City pipes, particularly with (Pl. LXII, fig. 77), which also bears incised tribal markings. It is distinct in detail, however, by the complex design of these markings and also the unusual shaped disc at the rear with a swastika incised on the surface.

The restored clay head from the Seip Mound is the largest example of this class 4 sculpture (Pl. LXIV, fig. 79). Due to its fragmentary condition and conjectural restoration, it can only be generally considered. Facial features resemble those of the above examples, while the very high forehead and flattened rear portion conform to the shape of the Turner heads. It is noteworthy that this is the only human representation from the Seip Mound, and its strong similarity in design to the Turner figurines strongly suggests some obvious contact between the two sites.

Generally conforming to the distribution of three-dimensional carvings are the two-dimensional forms also found primarily at the Hopewell Mound Group and Mound City.
Examples from these sites are not as uniform in style as the three-dimensional carvings, ranging from a strong naturalism to a high degree of conventionalization. Several of the naturalistic forms are closely related to each other and also to various three-dimensional carvings. The affiliation between these two types of sculpture is readily discernible in the series of copper bird forms from Mound City and the Hopewell Mound Group (Pl. LXXII, LXXIII). Although actively shown as flying, these birds resemble the more static effigy pipes of type B, style 1 in several respects. These include the naturalistic proportions, notched beak, prominent eyes and incised facial markings. Another instance of this stylistic relationship between three and two-dimensional sculpture appears in the only two-dimensional example of an animal from the Tremper Mound (Pl. LXXVI, fig. 96). Cut from mica, it possesses the same strong naturalistic intent of the effigy pipes common at this site.

Strong relationships are occasionally observed between several sites; for instance, the four human representations, (Pl. LXXIX, LXXX) with one pair each found at the Hopewell Mound Group and Mound City. These forms differ in material conforming to that most common at the sites, as the copper pair from Mound City and the two mica examples from the Hopewell Mound Group. These four figures are the only such two-dimensional human figures found in Hopewellian art. Remarkably homogeneous in style, they are carved with fully
rounded parts enclosed within a lucid flowing contour. It is interesting to note their similarity to the free standing Turner figurines, (Pl. XLVI, fig. 59) evident in such characteristics as rigid symmetry, shape, proportions and round articulated legs ending in substantial feet.

Further relationships between the Turner and Hopewell Mound Group sites appear in the subject matter, namely the representation of two-dimensional human heads and serpent forms. These forms differ, however, in material and style common to the sites. The copper and stone examples from the Hopewell Mound Group (Pl. LXVI, LXXVII) are naturalistic while those from the Turner Mound (Pl. LXXXVIII, LXXVII) cut from mica, are larger in size with exaggerated features conveying the dramatic expressiveness characteristic of this site.

Among the most common flat designs are the single or paired birds with simplified heads and stylized bodies conforming to a long curvilinear or serpentine snake. This treatment of the body imbues the figure with a reptilian idea apparently possessing some significant meaning or power. This motif is predominant at Mound City carved from copper or engraved on pottery vessels (Pl. XCI-XCIV). These designs vary in style with the geometric and angular treatment of the pottery examples differing from the roundness of the copper figures. A greater conventionalization of this design is revealed in the example cut from copper also found at the Mound City site. In depicts the same basic concept of paired
bird heads with the body reduced to a geometric design, reminiscent of the angularity of the figures incised on pottery.

Of great stylistic importance is the only rendering of this bird motif in a three-dimensional figure, namely, the effigy pipe of type C from the Hopewell Mound Group (Pl. XXIX, fig. 39). Obvious relationships of this carving to the two-dimensional designs include the reversed confrontation position of the heads, delineation of facial features and generalized serpentine body. The presence of this motif in Ohio, carved in both three and two-dimensional forms, suggests its greatest development in this region and probably subsequent influence to distant Hopewellian regions, particularly Louisiana.

Variations of this design at other Ohio sites appear in the tortoise shell carving from the Seip Mound (Pl. XC, fig. 113). The head is delineated into a simplified shape, whereas, the figure retains a stronger grasp on reality evident in the rounded part of the back compressed behind the head and followed by the simplified pattern of the tail feathers.

The most highly conventionalized Hopewellian designs are six engravings on bone found at two sites; Hopewell Mound Group and the Turner Mound Group. Four from the former site (Pl. CIICIV) differ from each other in design and treatment ranging from a relatively simple to all-over design, while
those from the latter site are identical in design. (Pl. CVI, fig. 131). Although composed of common stylistic elements, these designs as a whole, bear no specific relationships with other carvings. In all cases, the figure is closely interwoven with decorative motifs either with or outside the form and accented by a cross-hatching or striation technique. These two intricately designed compositional examples from the Turner site, differ only in the reversed positions of the design. It depicts parts of three effigies—two birds and a mammal-like figure rendered with the roundness and movement of the conventionalized style. Moreover, this design conforms to the imaginative concept of the carvings from this site.

The foregoing analysis illustrates the importance of the Hopewell Mound Group, Mound City Group, Turner Mound Group and the Tremper Mound. ¹ These sites tend to be marked by particular types of sculpture, but as a whole, they are bound together by essential elements.

¹ Webb, 1945, pp. 200-17. The author has presented a tentative chronology for Ohio Hopewell, whereby the Hopewell Mound Group and Turner conform to late Hopewell; Mound City and Seip to middle Hopewell; and Tremper and Harness to early Hopewell. These divisions are based on the quantity of material and their artistic development with late Hopewell signifying the longest continuity and highest artistic and cultural development.
Illinois

Although Illinois is one of the most extensive Hopewellian areas,¹ comparatively few figurative forms have been found—fourteen selected for examination in this paper. Except for an engraved potsherd,² the specimens are carved in the round and consist of four effigy platform pipes—six human figurines³ and two human heads. The majority have been found at specific sites. Stylistically, they are distinct from each other but share several features in common with objects from Ohio.

Closely related to the carvings from Ohio are the four effigy pipes found together at the Wilson Mound group.⁴ Homogeneous in style, they are strikingly similar in design to the pipes from the Tremper and Mound City sites. But they differ from the latter pipes in several respects, such as, a lesser degree of structural understanding and sensitivity of shape combined with a summary modeling of parts and detail.

¹As in Ohio, these sites are within easy reach of each other, constructed along the Illinois River which cuts from east to west across the state.

²Designs engraved on two pottery vessels, (Pl. CXI, f figs. 138,139) have not been considered due to their conjectural nature.

³Two figures from the Baehr Mound (Pl. LIX, figs. 73, 74) have not been considered as they are based solely on drawings.

⁴Constructed in the southeastern corner of the state, this site is situated closer to the Ohio mounds than any other Illinois site. These pipes were found in the largest of a group of eleven mounds.
This distinction is seen in the two birds rendered as simple shapes with no indication of legs, feather groupings or facial features. The other animals, limited to the upper part of the body, are generalized in treatment but with a clear indication of the facial features common on the Ohio pipes. Technically, the surfaces are not as highly polished and occasionally file markings are evident on the surface.

The group of human figurines, on the other hand, are characteristic of an important Illinois style (Pl. LIII-LVII). Found together in the Knight Mound, the dominant feature of their design is the disproportionately enlarged head fully modeled in the round and supported by a small compact body. This simplification of the bodily parts is foreign to the naturalism of the Ohio figurines from the Turner Mound. Nevertheless, they share minor features in common. These include the same type dress, similar coiffure and particularly the pronounced tapered shape and oblique arrangement of the eyes.

The strongest style elements, at variance from the Turner figures are the shaping of the massive heads, wide mouth with a distinctive cleft, modeling of pointed breasts and tapering lower legs terminating in abbreviated feet. The generalized modeling of the frontal planes indicates a strong effort to give roundness to a fundamentally flat body. Furthermore, in contrast to the symmetry and frontal aspect of the Turner figures, these Knight examples vary in position with two figures arranged in a compositional design, both
holding a small child. Articulated structure is indicated in the arms, hands and legs. Although smaller in size than the Turner figures, they are more elaborately painted in several colors.

That this style is distinctive of the Illinois region is strengthened by a figure found at the Whitnah village site. Obviously unfinished, it bears the same disproportionately enlarged head, compact body with breasts drawn out from the chest and small tapering legs. This is the only figurative example from the site and probably was the work of a sculptor familiar with the Knight figurines.

Two isolated human heads found at the Steuben village site near Peoria and the Twenhafel site in Jackson County (Pl. LXVIII) are distinct in style from the above group of Knight Mound figurines except in minor details. These details are apparent on the figure (Pl. LXVIII, fig. 85), which has the same shaped eyes and similar coiffure design as figure (Pl. LIII, fig. 67). Although these two isolated heads are at variance from each other in facial features, coiffure and manner of treatment, they are somewhat similar in profile design. This is seen in the round expanded forehead which leads into the forward jutting nose. The only other appearance of this shape is a head from the Hopewellian site in Oklahoma (Pl. LXIX, fig. 87). The similarity between these figures is strengthened by the design of the facial features and coiffure. Stylistically, it indicates the relationship
and contact between two widely distant Hopewellian regions. Stylistic relationships with other Hopewellian regions appear in the pottery engraving of the bird motif. The energetic rounded reptilian body emerging from the identifiable head is particularly reminiscent of the Louisiana pottery specimens. While the eagle was universally depicted in the latter area, this head resembles the spoonbill duck observed only on three-dimensional carvings from the Hopewell Mound Group. The position of the head, however, as facing upward is distinct from those designs found at Louisiana or Ohio where the head is horizontally placed.

Stylistically, sculpture from the Illinois Hopewellian region indicates both marked relationships and distinctions with the Ohio sites, as the effigy pipes and human figurines respectively. But the only pottery fragment is obviously similar to such examples from Louisiana, emphasizing the wide interchange and contacts among Hopewellian sites.

**Louisiana**

Located a considerable distance from the northern Hopewellian center are similar type sites in Louisiana, most important being the Crooks site and Marksville Mound Group. Nine specimens have been examined from this region; four from Marksville; two from Crooks and three related examples from the nearby vicinity. The impressive pottery designs from Marksville are non-existent at the Crooks site, thereby
establishing the former site as the center of engraved pottery production, characteristic of this region. Found with these pottery examples is a small human head, while objects from the Crooks site include another head, one effigy platform pipe and several plain bowl examples.

Stylistically, these pottery engravings from Marksville, particularly vessels (Pl. XCV, XCVI) are remarkably distinctive. Although depicting the common bird motif with the simplified eagle head and narrow generalized body as the copper and pottery examples from Mound City, Ohio, they differ from them in several respects. For instance, imbued with an energetic movement the figures encircle the bowl in an all-over design. Emerging from the base of the vessel, they are combined in a harmonious arrangement with decorative elements, such as the vertical and "Y" shapes. These features contrast with the Mound City examples both in the isolation of the figure and the restrained geometric reduction of form. But they are similar in such elements as the continuous groove outlining the figure, background roughening and decoration of the rim.

Variations of these pottery design, found at sites in Avoyelles Parish, Louisiana, conform to these styles. For instance, the all-over rhythmic design of vessel (Pl. XCVII, fig. 122) recalls the Marksville vessels, while the confronting birds with angular heraldic treatment of the bodies (Pl. XCVIII, fig. 123) are more closely affiliated with the Mound City examples. Finally in Mississippi a related example was
found at the Hopewellian-like Bynum mounds (Pl. XCIX, fig. 124). This is seen in the treatment of the confronting birds, but more rigid and simplified in design than the Marksville examples. The upward position of the heads recalls the fragment from Illinois (Pl. C, fig. 125).

Representative of the three-dimensional carvings are two clay heads from the Marksville and Crooks sites (Pl. LXXI), generally related to each other. Distinctive of these examples is the modeling of the forehead flowing uninterruptedly into the nose, a feature not apparent on other Hopewellian examples of this class. The shape and oblique position of the eyes is, however, a common motif. Other similarities with figures from northern Hopewell sites include short horn-like projections on the enveloping coiffure of figure (Pl. LXXI, fig. 90) seen also on the effigy pipe from Mound City, (Pl. LXII, fig. 77), while the representation of hair by means of striations on the other figure is related to those examples from Indiana. There is no indication of hair on Hopewellian figures from other sites.

Influences from Ohio are apparent in the plain and effigy pipes from the Marksville and Crooks site. This is particularly evident in the similarities of the plain bowl fragment (Pl. X, fig. 18) to those from the Hopewell Mound Group and the clay effigy example (Pl. XXVIII, fig. 38) to the Tremper and Mound City pipes. The latter figure is far more generalized and simplified in treatment due in part to
the fragile clay material. Apparently three-dimensional carvings found further removed from the Ohio region are less naturalistic and lack the amazing skill of the Ohio sculptors. Nevertheless, there is a definite attempt to retain the established designs which makes Hopewellian sculpture readily discernible.

Indiana

Although strategically situated between the extensive Hopewellian regions of Ohio and Illinois, only a few Hopewellian sites and carvings were found in Indiana, due to a limited amount of excavation. Figurative material in this study consists of an effigy pipe and a fragmentary group of human heads from the Mann site.

The most unusual example is the effigy pipe transitional in design between types D and E of the Ohio pipes (Pl. XXVII, fig. 37). This is the only documented Hopewellian carving of a feline found outside of Ohio. In the latter region this animal was occasionally carved on the effigy pipes of type B, as those from the Tremper and Mound City sites. Stylistically compared with the latter examples, this figure is more angular and rigidly carved without the strong naturalistic intent of the Ohio pipes. Parts are generalized and block-like in shape, while the highly polished surface is characteristic of the Hopewellian style. Surface details are decoratively treated as deep grooves, in contrast with the lightness of touch of the Ohio pipes.
An interesting relationship with the Louisiana region is apparent in the human representations with hair indicated by striations (Pl. LXX, fig. 83). These are the only Hopewellian figures that indicate this unique treatment strongly suggestive of some contact between them. In both figures the eyes are identically shaped in the characteristic manner, but the full fleshy features and round head of the figure at the upper left is distinctive.
Characteristics of Hopewellian Sculpture

It is apparent that the three major style centers in Hopewellian sculpture are Ohio, Illinois and Louisiana. The style center of an art is the region in which its features are less diluted by or intermingled with elements of other styles from outside sources. To establish these centers on the basis of the individual mound sites and the operation of their influences completely would require more accurate dating of existing specimens, as well as a greater number of objects than are now available. But from the analysis of the objects themselves and from recorded archaeological material, it is possible to specify their fundamental stylistic features and to consider chronological hypothesis for the origins of styles and their dissemination.

Ohio

Stylistically, Ohio sculpture is characterized by forms both naturalistic, semi-naturalistic and conventionalized in design. In the naturalistic forms characteristic features are carefully defined with emphasis on their lifelike quality. There is a selection of the essential and a clarity of parts. The sculptor achieved a remarkable synthesis of natural form. Throughout, these carvings display a feeling for round sensitive contours with an integration of planes and elements. A strong symmetrical concept imbues the carvings with a consistent sense of organization.
Marked by a strong homogeneity, the forms are modeled with a definite feeling for proportional relationships and balance. The same basic features prevail in the semi-naturalistic examples although they display a more moving rhythmic design. There is an emphasis upon rounded curvilinear shapes yet retaining the inherent symmetry. Conventionalized designs, usually combined with decorative elements, exhibit a basic unity with an exaggeration of the natural form.

**Illinois**

Sculptural material from Illinois are obviously analogous in style to objects from Ohio, for example, the effigy pipes, but they are more simplified in treatment, occasionally approaching a summary rendition. Integrally connected with the pipe the effigy is compactly modeled with broad planes which imbue the figure with a feeling of rigidity. Human figures, on the other hand, are distinctively marked by a disproportionate modeling of form with attention concentrated on the enlarged head, contrasting with the reduced body. They tend to vary from a strict symmetry and are elaborated with decorative surface painting. Scattered finds of engraved potsherds depicting a bird, conform to the same style of the Louisiana examples with the simplified head and winding body.

**Louisiana**

The style from this region is primarily defined by
engravings on pottery vessels. The eagle is commonly rendered in a moving activated design harmoniously interwoven with decorated elements. Accent is placed upon curvilinear shapes that swarm over the surface of the vessel. The form is rendered with simplified features and body. These designs conform to a symmetrical repeat pattern imbuing the designs with an ordered regularity. The few clay carvings in the round are basically related to similar Ohio figures, however, they are smaller in size and more generalized in treatment.
Archaeological Development

Since specific chronological dating for individual specimens is lacking, it is necessary to reconstruct the archaeological development of Hopewellian sculpture through its stylistic relationships. Two alternate Hypothesis must be considered. The first of these is that the center or point of origin of Hopewell sculptural art was in Illinois or along the Gulf Coast region from whence influences developed eastward and northward up the rivers. The second is the reverse of this and places the early centers in southern Ohio with the art of the above sites developing later under influences from Ohio.

The evidence in support of the first hypothesis is somewhat weak and practically negligible. Any promise of a chronological arrangement of styles presupposes that later styles show a developed elaboration or misunderstood handling of the essential features of an earlier one. When compared with Ohio objects, the western and southern Hopewellian carvings show this development and elaboration. The following sequence, for example testifies to this relationship (Pl. XXII, fig. 32; Pl. XXVIII, fig. 38; Pl. XCI, fig. 114; Pl. XCIV, fig. 118).

The Ohio objects show the strongest handling of these style features, instead of a simplified vague handling of them which would have resulted if this style had originated in Illinois or in the south and had been taken eastward or
northward up the rivers. New impulses and new contacts on the contrary, seem to have modified these essential features as they appear in coastal carvings. For instance, the nature of the pottery designs should be noted, as well as the general tendency of southern art towards greater elaboration, description and representation. But the similarities of southern and northerm styles suggest in some cases (Pl. XXII, fig. 32; Pl. XXVIII, fig. 38), a fairly strong retention of northern features. This is particularly evident in the Illinois examples (Pl. XXII, XIV, XV).

The only vestige of support for the first hypothesis would therefore appear to rest on the supposition that the early basic objects which could have supported it have now all disappeared, that the surviving sculpture from these areas represent a later development that once existed there, and that the Ohio styles being isolated from later influence reveal the western and southern art at the stage of its development when it moved into Ohio. Although this hypothesis cannot be completely ruled out, the opposing evidence derived from the relationships between styles and cultural data largely discredit it.

On the other hand, the hypothesis for northern or Ohio origin is strongly supported by relationships and inter-relationships between basic style centers and marginal styles. The most significant affinities in this respect are those between the Tremper and Mound City sites and their marginal
styles as Wilson site and Crooks site. Although style correspondences with adjacent and southern objects can be discerned, the relative self-sufficient environment and cultural unity apparently made it possible for them to preserve more successfully the older character of their style. An important fact favoring an earlier date for these northern objects is the boldness and the surety of their approach to problems of design and expression, this shows that they were working within an old tradition and not within one that was losing sight of its strongest essentials through relatively new and foreign influences. These should be noticed, on the other hand, that two fundamental traditions, those of naturalistic and geometric form appear mingled in Hopewellian sculpture. Both of these traditions are apparently inherent in the culture and may possibly derive from separate centers of origin. But information is too meagre at this time to attempt to ascribe their provenience.
Summary

Hopewellian sculpture shows a variety of shapes and formal patterns bound together by such common qualities as roundness, symmetry and clarity of parts. Varied types of materials were carved in the many satisfactory aspects of sculpture ranging from low relief to free standing figures. This is purely a sculptural art with minor elements as incisions and occasionally painting subordinated to the total form.

Subject matter is basically grounded on nature with human and animal representations, while several shapes are strongly suggestive of plant forms (Pl. XCV). As seen in the surviving examples, animals are predominant in the art. Rendered in many ways, these forms demonstrate the considerable expressive possibilities of the figure as depicted by the Hopewellian artist. They are commonly represented either in a strong naturalistic rendition, or are more stylized but with an identifiable head and face. Stylistically, these carvings range from established interpretations with a minimum of variations, to those more personal in nature.

Distinctive of the art are the two opposing trends of naturalism and conventionalization, whereby carvings are characteristically modeled as full substantial forms. These are defined by broad planes emphasized by smooth undulating contours, rationally and rhythmically integrated into a complete unity. Surfaces are smoothed and highly polished
throughout. In two dimensional forms, conventionalization and occasionally distortion, is developed to the point that it is considered as a basic style (Pl. CII, CIII). Many of these examples are calculatingly schematic and perceptive yet portraying the figure both expressively and decoratively. A vigor and directness of purpose pervade Hopewellian sculpture, concomitant with refinement and preciseness. There is an amazing command of the linear technique, either to accent parts of carvings in the round, or describe designs on the surfaces of flat materials. The artist had few technical limitations and was able to create a sculptural synthesis based upon his observation of natural form.

Within these generalizations, stylistic variations are discernible in three major regions - Ohio, Illinois and Louisiana. These variations are within the same tradition, sharing many features in common. Of the three areas, Ohio is the dominant center. This is evident in the greater number of objects found representing all the types and styles of Hopewellian sculpture and the strong direct expressiveness of the carvings.

Although the most prevalent Hopewellian carvings are the effigy platform pipes found throughout this region, they attained their greatest development and preponderance in Ohio. These display an almost literal realism, with rounded forms defined by careful undercutting and smooth undulating planes integrated into a complete entity (Pl. XII, XAll).
They depict the habits of the animals with a sure understanding of anatomical structure. Parts are life-like in proportion with their effectiveness derived from their relationship to the total form and not from any small or decorative details. To heighten this effect, foreign materials were inlaid. In many cases, surface texture is portrayed by an amazing command of the incised technique which serves to enhance rather than detract from the complete figure. These basic style elements pervade other types of carvings, particularly hollow effigies (Pl.XXXIII, XLIII), rarely found outside the Ohio region.

Human representations are predominant in three-dimensional carvings with the individual characteristics sensitively expressed (Pl. XLIV, fig. 58; Pl. LI, LV). They present no indication of portraiture but are distinct from each other in sexual characteristics, proportion and dress. A remarkable similarity and naturalism make them readily identifiable. In contrast, however, to the full substantiability of the animal figures, these carvings in the round are relatively flattened with a decided effort to give roundness to the frontal aspect of the form.

Two-dimensional designs display an amazing free treatment of natural form, more energetic and personal than three-dimensional figures (Pl. LXXIX, XCI). Manner of handling suggests a sensitivity of touch and an aesthetic interest in effect shown by the adoption of the design to the material,
Elements are unified by the continuous rhythm that flows uninterruptedly throughout the surface, with the complete design characteristically more important than the component parts. Many of these are analogous to carvings in the round by their general design and motifs. As a whole, they bear the typical Hopewellian features of roundness, of form, integration of parts, symmetry and a selection of the essentials.

Hopewellian sites in Louisiana and Illinois are stylistically analogous with Ohio, but with only one or more types of sculpture. These few three-dimensional carvings possess a comparatively lesser degree of likeness and empty feeling. This is especially true in the human figures from Illinois (Pl. LI-LV), which are designed with an obvious disproportion of the figure, yet retain a similarity of features in appearance. In both figural forms attention is focused upon the head with a generalization or reduction of the body. Although animals are singularly represented as in Ohio, human figures are occasionally combined into a meaningful composition (Pl. LII, LIII). Two-dimensional designs from Louisiana of engravings on pottery are handled with an excellence of technique (Pl. XCIV, XCV). Although displaying a definite influence from Ohio, they vary in style with a stronger suggestion of the instantaneous emanating from moving curvilinear motifs. Harmoniously designed in an all-over composition, their energetic quality is expressed in a
horizontal direction or repeat pattern. These regional stylistic tendencies are important for a comprehensive understanding of Hopewellian art.

The art of the Hopewellian culture is direct, strong, and highly developed, crystallized in terms of the many practical methods of carving. Stone was the most basic material, apparent in the many general and specific relationships to figures carved from different materials.

Hopewellian sculpture during its life span of approximately four hundred years\(^1\) was the most highly developed art in the Eastern United States. Related by many common elements, the carvings are readily recognizable and distinct from the art of other cultural groups. Their art emerged from the context of an advanced culture which possessed some political organization and tribal religion evident in the great earthwork constructions and established ceremonial procedures. Comparatively, this mature, sophisticated art style ranks as one of the outstanding aboriginal arts of the Western Hemisphere.

\(^1\) See footnote 2, p. 7.
CHAPTER V

APPENDIX: ADENA ART
For some time the Adena culture has been considered ancestrally related with the Hopewellian culture. Several recent C14 tests have, however, reversed this relationship and position making the culture a derivative of the Hopewellian. The problem remains controversial with its final solution dependent upon further excavations and examinations of materials and data. In this section, the cultural and stylistic features of the Adena culture and their relationships to the Hopewellian have been briefly described. A more detailed analysis is beyond the objective of this work.

Adena sites are compactly distributed, tending to coincide with the area of Hopewellian development in the Ohio River drainage. Obvious relationships exist between these two cultures, aside from a similar type economy. For instance, the Adena people also constructed earthworks and mounds, but not as extensive or complex as the Hopewellian and generally differing in appearance. Distinctive of the culture is the clear evidence of circular house plans on mound floors, rarely found at Hopewellian sites. Within these houses important burials were occasionally interred

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1 Johnson (assem.) 1951. Briefly the dates are as follows: Adena: 1168 ± 150 years; 1509 ± 250 years. Hopewell: 2285 ± 210 years; 2044 ± 250 years.

2 Detailed investigations of the Adena culture are found in Greenman, 1922; Webb, 1945; and the series of reports published by the University of Kentucky describing the excavation of Adena mounds in Kentucky.
in sub-floor graves lined with logs and bark and covered with logs. The majority of the deceased were probably cremated and deposited on the floors, or possibly in the village area. Basically, the burial complex is similar to the Hopewell. In both cultural groups, burials were accompanied with utilitarian and decorative objects, but far more prolific and varied in the Hopewell graves. Although the Adena people possessed similar materials, obtained either locally or from distant regions, there is no evidence of the widespread trade and contacts observed in the Hopewellian culture. Customarily these materials have been cut into decorative objects or else remain unworked, with the common examples of Hopewell figurative sculpture conspicuous by their absence. Rare finds of plain bowl platform pipes indicate contact and interchange between these two cultures.

To recapitulate; the Adena people probably mastered their environment enabling them to engage in the pursuit of cultural activities and to construct large earthworks. Apparently, they developed widespread social, religious and ceremonial concepts evident in the commonality of plans, constructions and burial procedures.

Adena sculpture is comparatively limited to quantity. The most important finds examined in this study, are found in Ohio, Kentucky, and West Virginia, consisting of a single effigy pipe, tablets engraved with figurative-like designs and a single effigy cut from shell. These objects are all
reported to have been found in mounds, many in association with graves. The majority lack the authoritative documenta-
tion of the Hopewell specimens, but on the basis of style and other associated objects, they are ascribed to the Adena culture.

The only three-dimensional Adena figure is the human effigy pipe carved from Ohio pipestone (Pl. CXII, Fig. 140). Basically tubular in shape, the upper part of the body is carved in the round while the tube extends from the buttocks to the base with the legs modeled in relief on each side. The mouthpiece consists of a projection at the top of the head with the interior channel gradually expanding as it nears the bottom of the tube. The surface is remarkably smoothed and highly polished with no indication of decorative painting. The figure measures eight inches in height.

Stylistically, this dramatic expressive carving is distinct from the Hopewellian style, although they share minor features in common, particularly with the Turner figures. This is apparent in the flattened tapering torso; longitudinal groove along the spine; buttocks modeled beneath the dress covering, and prominent ear spools.

The carving, however, surpasses human Hopewellian figurines in the high degree of refinement, technical skill and forcefulness. A strong vigor and expression pervades the figure. It is a fine example of a purely sculptural expression with its three-dimensionality stressed by the dis-
fig. 140. Human effigy pipe, Adena Mound, Ohio; Ohio State Museum, Columbus, Ohio
distinct emphasis on essential parts. These parts, such as arms, legs, body and head, reveal the fundamental geometric character of the form as an assemblage of separate parts unified into an organic whole. This treatment is foreign to the round, smoothly integrated Hopewellian style. Emphatic undercutting continues in the flexed legs and sharp connection of the hips with the torso and groin, contrasting with the gentle undulation common in the latter group of figures. Open spaces between the body and articulated arms increases the expressive vitality and contributes greatly to the depth of form.

Another distinctive feature is the enlarged block-like head easily supported by the rigid verticality of the body. It is defined by the evenly cut sides that sharply meet the angularly modeled frontal planes. These move forward and backward in depth, accented by the projection and hollowing out of such features as the nose, eyes and mouth. The unusual designed coiffure consists of two rectangular bands extending across the head and divided by a deep central channel. Finely incised diagonal lines representing hair, recall the Hopewell heads from Indiana and Louisiana, but they are more uniformly treated. Also differing from the Hopewell figures is the more elaborate loin cloth with feather-like bustle at the rear and serpent design engraved on the front. This serpent design recalls similar motifs engraved on the Adena tablets.
The sculptor's understanding of structure and his sure command of the medium are apparent in many naturalistic features non-existent on the Hopewell figures. For instance, the slight fullness of the chest and shoulder blades, modeling of elbow joints staggered size of the fingers with nail indicated by undercutting, indication of chin bone, exterior ankle bones and sensitive modeling of the heel, instep and sole of the foot.

In both the basic design and essential features, this figure is distinct from the Hopewellian style. Furthermore, the tubular shape conforms to the common Adena tubular pipes in contrast to the Hopewellian platform type.

Two-dimensional Adena art is best known by figurative and geometric designs engraved on the surface of sandstone, clay and bone tablets. Cut into rectangular and circular shapes, they are relatively small in size, not exceeding four inches in length. Frequently, there are three longitudinal depressions on the rear part of the stone tablets, possibly caused by the artist sharpening his instrument while working. Technically, the designs were either incised on the surface or placed in relief by cutting away the back-

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1 Snow, 1943, pp. 5-7. Such features as the proportions of the head and body, and swelling of the neck has led many anthropologists to consider this figure the representation of an achondroplastic dwarf.

2 Webb, 1940, p. 115-126. The author has illustrated nine of the relatively few Adena tablets.
ground. This treatment ranges in quality from irregular, hesitant lines to the crisp sharp Hopewellian style. There is no evidence of surface painting.

The designs range from identifiable to highly conventionalized conceptions. Although generally distinct from the Hopewellian, they display several similar features, subject matter being the most common. The eagle is frequently represented, whereas, human and animal forms are rarely if ever shown. As in the Hopewell engravings, the eagle is described with the same long curving beak and large circular eye, plain or elaborated with lines. Characteristically, the head is the identifiable element, while the body conforms to the long serpentine shape reminiscent of many Hopewellian examples of style 2, but tightly compressed into a more complex design. Reminiscent of the Hopewellian trait of depicting identical figures and designs is the engraving on both sides of the Berlin tablet. In contrast with the consistent high quality of the former style, the design on the rear is obviously inferior in technique as a preliminary representation or copy by another individual. Another relationship between the two styles is seen in the separation and re-assembling of the most essential anatomical parts of the figure in one design, as in the Florence tablet.

Prominent characteristics of the Adena style include an all-over design that completely fills and occasionally overflows the surface of the object. Where shown, the border
is decoratively elaborated or reduced to a narrow band. Symmetrically planned, the designs are divided both vertically and horizontally into several registers. Occasionally they are bordered above by confronting birds or other designs, while simple or complex serpentine shapes fill the lower spaces. Frequently, the individual registers are distinct in design from each other as the Leigs, Laiken and Wilmington tablets, while the Gaitskill example is remarkably homogeneous throughout.

There is a tendency for complexity integrated elements in contrast to the basic clarity and simple regularity of the Hopewellian designs. Usually many or all the elements of a design elude interpretation, nevertheless, they are imbued with the expressive quality that the artist wishes to impart. Identifiable parts of some examples, are strongly suggestive of common bird features such as heads, wings and claws. Common motifs include circular shapes connected by a central element and occasionally marked by a smaller concentric shape; tightly bent comma shapes, plain or with scalloped edged contours; and curved concentric lines. These motifs are disconnected and irregularly combined with each other in an activated design.

The Wilmington tablet is one of the most elaborate and interesting examples of the group (Pl. CXIII, fig. 141). For instance, the four registers differ from each other in an alternating fashion, seen in the bird of the upper section;
fig. 141. Engraved tablet, sandstone, Wilmington, Ohio; Ohio State Museum, Columbus, Ohio
the one at the left is incised with the features cut out, whereas, the other is cut with the features incised. Furthermore, the designs in the lower registers emphasize this variation, as the irregular shapes varying in width and the opposing scalloped border at the base.

Most closely related to the Ohio Hopewellian style is the animal, probably a rabbit or bear, cut from shell, (Pl. CXIV, fig. 142). Found in the Adena Mound (Ohio), it is strongly reminiscent of the mica figure from the Tremper Mound, (Pl. LXXVI, fig. 95). There is the same basic roundness and simplicity of form, however, the Hopewellian example is marked by a greater clarity of parts seen in the delineation of the head and extremities.

These Adena carvings display general relationships with the Hopewellian style, particularly evident in the selection and rendering of subject matter.
fig. 142. Cut-out effigy, shell, Adena Mound, Ohio; Ohio State Museum, Columbus, Ohio
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Chapman, Carl H.


Cole, Fay-Cooper

Cole, Fay-Cooper and Thorne Deuel

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Mound Group, Ohio; Ohio State Museum,
Columbus, Ohio; 11 1/10" long, copper.
Illustrated In: Shetrone, 1920.

fig. 137  Cut-out shapes, problematical effigies,
Hopewell Mound Group, Ohio; Chicago
Natural History Museum, Chicago, Illinois; 2"
long, copper, two holes at the top.
Illustrated In: Moorehead, 1926.
Pl. CXI


Pl. CXII
fig. 140 Adena effigy pipe; Adena Mound, Ohio; Ohio State Museum, Columbus, Ohio; 8" height, pipestone. Illustrated in: Hills, 1902.

Pl. CXIII
fig. 141 Adena engraved tablet, eagles, Wilmington, Ohio; Ohio State Museum, Columbus, Ohio; 3 1/8" x 2 1/2", sandstone. Illustrated in: Webb, 1940.

Pl. CXIV
fig. 142 Cut-out effigy, rabbit?, Adena Mound, Ohio; Ohio State Museum, Columbus, Ohio; 3 1/2" shell. Illustrated in: Hills, 1902.
AUTOBIOGRAPHY

I, Robert E. Myron, was born in Brooklyn, New York, March 15, 1926. I received my secondary school education at the High School of Music and Art, New York City. My undergraduate training was obtained at New York University which tendered the degree Bachelor of Arts in 1949. The Institute of Fine Arts (graduate school of New York University) conferred the degree Master of Arts. In 1951, while enrolled at The Ohio State University, a one year fellowship was received from The Ohio State Museum. During the following two years I completed the requirements for the degree Doctor of Philosophy.