

III. MIDDLE MISSISSIPPI "PHASE": MONKS MOUND ASPECT

The Middle Mississippi region is one of the many celebrated archaeological blind spots on the North American scene. Ever since the brilliant pioneer work of Holmes, if not before, the term "Middle Mississippi" has been in current use, with a somewhat vague but on the whole fairly satisfactory agreement upon its connotation. Holmes's classification was, of course, based entirely on ceramics, but his Middle Mississippi has come to mean, through the course of time, an archaeological area in the full sense of the term. The result is that few students today would question the existence of such a cultural entity, although there would be enormous disagreement as to its precise definition and geographical delimitation. These problems will be our main concern in what is to follow.

In dealing with the Upper "phase" of the Mississippi pattern it was a process of reducing a fair amount of published material to a few rather superficial generalizations. I believe that such treatment, hopelessly inadequate as it must be for the elucidation of any specific problems, was sufficient for the purpose in hand, namely to examine the general classificatory position of the several aspects so treated. The material which is to follow calls for an entirely different modus operandi. To begin with the published material on the various manifestations now recognized, or presumably about to be recognized, as Middle Mississippi, is very scant and for the most part of inferior quality, consequently information that would be considered unworthy of presentation in dealing with Upper Mississippi

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(1) Holmes, 1903.

will be put forward here without apology. More important is the circumstance that, except in some of its northernmost manifestations, Middle Mississippi has not been defined from the classificatory point of view, so that, lacking any guiding lines, it will be necessary to examine all types of information with the greatest possible detail.

I have referred to the fact that only some of the northernmost manifestations of Middle Mississippi have been classificatorily treated. This relates to the work done by the University of Illinois, recently published by Cole & Deuel in "Rediscovering Illinois". In central Illinois they excavated a group of sites showing a relatively pure Middle Mississippi culture, indeed it was chiefly on the basis of this work that Mississippi culture was first defined. Comparison of these sites with the great Cahokia site indicated a close relationship. The relationship between Cahokia and Aztlan, an isolated Middle Mississippi site in southeastern Wisconsin, has long been recognized. Consequently on the basis of these facts the classificatory position was tentatively established as follows:

Pattern -- Mississippi

Phase -- Middle

Aspect -- Monks Mound

Focus 1 -- Rock River

Component -- Aztlan

Focus 2 -- Spoon River

Focus 3 -- Kingston (1)

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(1) Indianapolis Conference Report, 1937, cf. Fig. 2 above.

From the above table it may be seen that all Middle Mississippi manifestations so far recognized in Illinois and Wisconsin belong to a single aspect, which takes its name fittingly enough from the great Monks Mound at Cahokia, the largest aboriginal structure north of Mexico. Unfortunately the position of the Cahokia site itself is not indicated in the classification as published. However, this need not disturb us. For the present purpose it is sufficient to consider the aspect in its more general bearings without becoming involved in the difficulties of focal determinations.

It would be natural to start our discussion of Middle Mississippi archaeology with Cahokia, unquestionably one of the most important and certainly the most impressive sites in the entire Mississippi Valley. Unfortunately we still await the final report of the most recent work done on the site. A somewhat more solid foundation for further consideration of Middle Mississippi manifestations may be laid down by first considering Aztlan, a scarcely less important site, in spite of its marginal position, and one which has been thoroughly excavated and (best of all) thoroughly reported.

1. Rock River Focus: Aztlan

The famous site of Aztlan was discovered hard upon the first opening of Wisconsin to settlement, a time when the romantic imagination still played a role in archaeology. The name, suggested by the theories of Humboldt then current refers, of course, to the legendary place of

origin of the Aztecs. Since 1837, the date of the first published account of the site, it has often been described, occasionally surveyed, and continuously ransacked by local enthusiasts, consequently a great deal is known about the condition of the site before the destruction of many features by cultivation. Excavation was undertaken by the Milwaukee Public Museum in 1919-1920 and again in 1932 and the results published in an excellent and comprehensive report. (1)

The site is located on the Crawfish river a few miles above its juncture with the Rock, in Jefferson county, southeastern Wisconsin. The name Aztlan is ordinarily restricted to a large enclosure and associated mounds on the west bank of the river, but there are additional remains on the east bank as well as various scattered groups nearby, all of which are thought to belong to the same cultural facies, classificatorily recognized under the term "Rock River Focus". For the present purposes it will be sufficient, I think, to concentrate on the main site which exhibits adequately the determinant features of the focus.

The Aztlan defences: The main site consists of a slightly irregular rectangular enclosure, a low earth wall, one of its long sides abutting on the river. Within the enclosure are a number of mounds, and outside it near the northwest corner an additional group strung along in a general north-south direction without any particular

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(1) Barrett, 1933.

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arrangement. A map of the site (Fig. 13) will indicate sufficiently the general characteristics and assemblage. It should be noted, however, that cultivation has obliterated a great number of mounds, the original number of which is estimated by Barrett to have been somewhere in the neighborhood of 100.

By all odds the most interesting feature of the site is the enclosure itself. Therefore I make no apology for devoting a good deal of space to it. The space enclosed is about 17 2/3 acres, total length of the wall being about 4400 feet. In its present condition the wall is about 22 feet wide and averages a foot and a half in height. Formerly it was probably several feet higher, and doubtless not so wide. The exterior border of the wall is extruded at nearly regular intervals to form what have been described as "buttments" or "bastions". Excavation has made perfectly clear the

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nature and origin of these features. The wall consists of earth that was piled against a single line of very large posts, set close together to form a stockade. The bastions are exactly what the term implies, are formed of earth that was similarly piled against the bases of rectangular constructions which undoubtedly supported some sort of fighting platforms from which the stockade could be properly defended.

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(1) Unfortunately, for lack of space, these do not appear on the accompanying plan (Fig. 13).

It must be confessed that this linear jumble of small conical mounds bears a superficial resemblance to an arrangement characteristic of Woodland sites of the Effigy Mound Aspect. It would be rank heresy to suggest any connection.

(2) Barrett, 1933, p. 42 et seq.

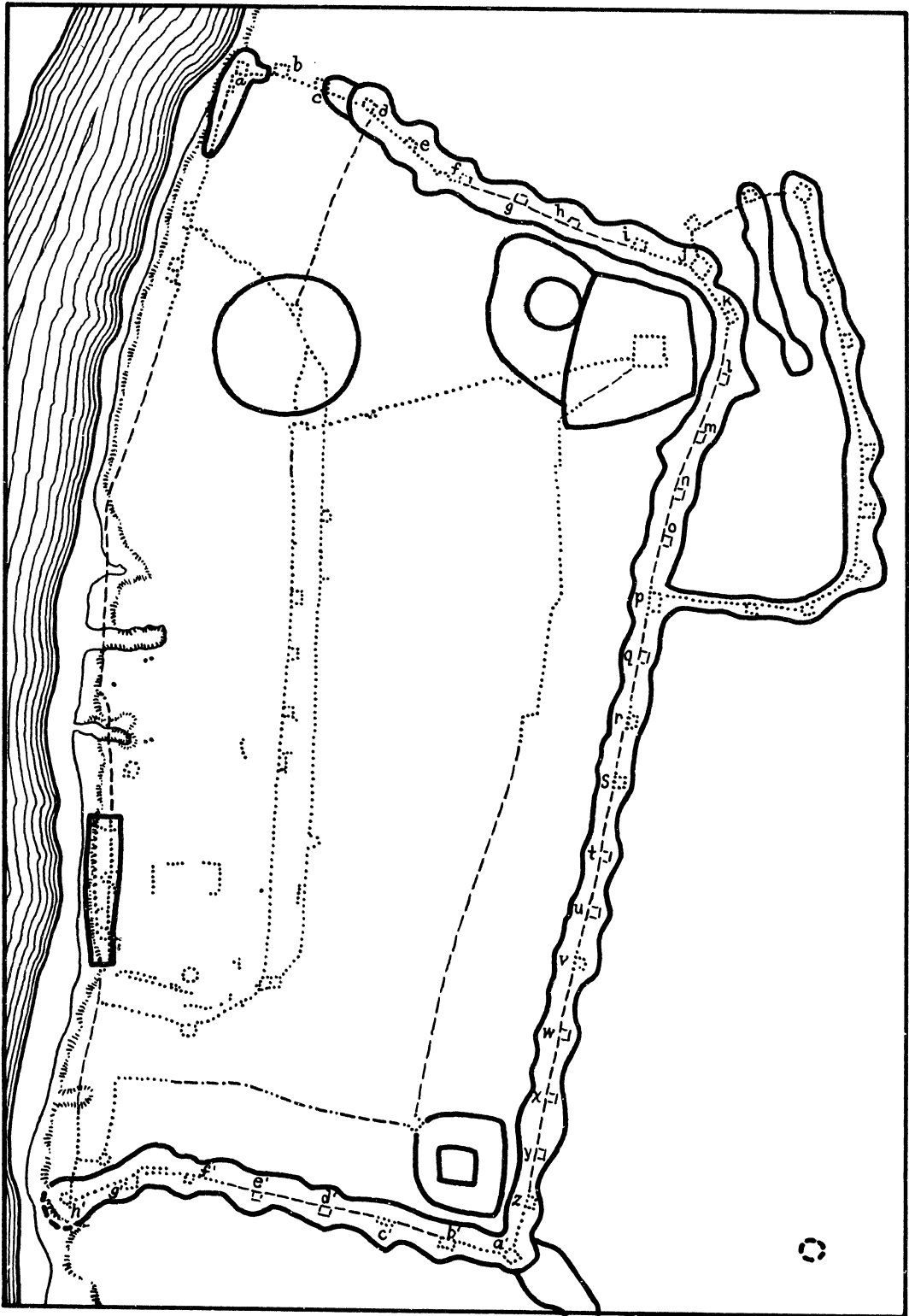


Fig. 13. Plan of Aztlán (Barrett, 1933, map 2.)

A large quantity of so-called "brick" has been found from time to time along this wall, which has naturally led to various surmises concerning its construction. Excavation showed clearly that one, if not both, sides of this stockade construction had been covered with a coating of mud plaster reinforced with grass or other fibrous material, which had been turned to "brick" in the course of the destruction of the stockade by fire. Areas were encountered where this brick material had toppled over after burning in sufficiently large pieces so that the original height of the wall, 12 feet, could be determined.⁽¹⁾

In addition to the continuous outer wall forming the enclosure as described, traces were found of inner lines of defense of the same construction, in some cases two additional lines, making a triple system in all. The question whether these represent successive growth stages of the settlement, or whether the three lines of defense existing contemporaneously, is dealt with at length by the author.⁽²⁾ The circumstance that few house remains were found between the inner and outer walls led him to adopt the second alternative. He found confirmation of this view in Garcilasso de la Vega's description of the fortress of Alibamo, which is not awfully clear but can be interpreted as a description of a triple system of defense. Barrett also cites Cartier's

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(1) Op cit., p. 44.

(2) Op cit., p. 52 et seq.

description of Hochelaga. Here I think he is definitely in error. From additional descriptions (ChAMPLAIN) of Iroquois stockades it is clear that the three parallel lines of posts actually formed a single wall, the outer posts leaning inward against the center line to form an inverted V-shaped construction. However, whether we accept the triple-defense interpretation or not, a very interesting and elaborate system of fortification is indicated.

Distribution of palisade defences: In line with my present purpose, it is important to consider the bearing of this particular type of fortification, as well as fortifications in general, on the classificatory problem of Mississippi archaeology. Is it a Mississippi trait? If so, is it likely to be a phase determinant for Middle Mississippi, or a pattern determinant for Mississippi culture in general? Barrett devotes a good deal of space to a consideration of fortifications as described in documentary sources and to their distribution in archaeology. I shall not follow him in detail, but I think a very brief survey of his material backed up by any additional information readily available may be worth while in order to fix, if possible, the position of this interesting and very important trait.

It is apparent at once, even from the most superficial examination of the evidence, that stockade construction as a generalized culture trait is too diffusive in character, too widely distributed beyond the orbit of Mississippi culture to have much utility as a

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culture determinant. It might be possible to show that its appearance everywhere is due to immediate or remote contact with Mississippi peoples, but I rather doubt it. At any rate I shall not attempt so to do. It is necessary, therefore, to consider the more specific aspects of the trait as it appears here at Aztlan. The rectangular shape is striking but not decisive. Topography obviously enters largely into the selection of defensive sites that it would be only rarely that the absence of topographical features would permit the adoption of an arbitrary plan. We are not surprised in looking over the evidence to find very few examples exhibiting this characteristic. Where they do occur, however, it is interesting to note that it is invariably in association with a Mississippi culture. It might be possible to state weakly that Mississippi peoples betray a tendency to build defensive walls in straight lines according to a rectangular plan when topography permits, which is seldom, though I doubt if one could show that this tendency is invariably operative.

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(1) Roughly the distribution extends from New England and the upper St. Lawrence, across the Great Lakes region to the Missouri (Mandan) down the Mississippi to its mouth. Whether the entire region between the Mississippi and the Atlantic is included I am not sure. It is noticeable that the DeSoto chroniclers, while occasionally referring vaguely to "fenced-about" villages in the eastern part of their wanderings, do not become specific in their descriptions of stockaded works until they get into the Mississippi Valley. That the distribution carries on into Middle America is indicated by several literary references cited by Shipp, one a description of Tobasco from DeSolis, another, an account of a fortified town in Guatemala (Shipp, (Garcilaso) 1881, p. 652-3). These descriptions are so similar to some of the DeSoto accounts that one wonders with disquietude whether there may not have been some borrowing on one side or the other. However, the DeSoto narratives are unassailable on this point since we have the archaeological evidence to back them up.

We come down to the question of bastions. Here is something specific and in all probability significant. The difference between a simple stockade wall, regardless of its shape, and a wall furnished with fighting platforms projecting from its outer face, thereby commanding the intervening spaces of wall, is enormous from a military standpoint. Therefore significant, I believe, from a cultural standpoint. Unfortunately there are not many instances of this type of stockade, either in historical sources or in archaeology. One reason is that the remains of a few feet of earth thrown up against the base of the stockade walls are relatively inconspicuous, easily overlooked in early descriptions of sites, and speedily extinguished by cultivation. The evidence which follows may therefore be assumed to be fragmentary in the extreme.

Second and no less important is the circumstance that at least one face of the stockade, possibly both, was covered with plaster. Here the evidence is likely to be still more fragmentary because the preservation of the plaster coating in the form of "brick", ("briquettes" is the more common term) is dependent on accidental burning. In the ordinary course of decay no trace of the clay covering would remain. I shall consider the occurrence of these two factors, bastions and clay daubing, in combination, though the occurrence of one without the other will not be overlooked.

By merely taking the documentary evidence that comes immediately to hand, one can find a number of highly significant references to

the use of palisade fortifications of the Aztlan type in the Mississippi Valley. The obvious starting point is the series
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of narratives of the DeSoto expedition. The information supplied

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(1) Elsewhere I shall have more to say about the relative reliability of the four separate accounts. Here it is sufficient to note that their dependability is generally rated in the following order: Ranjel, Elvas and DeBiedma (about even), Garcilasso bringing up the rear, lagging considerably at that. This rating is probably correct so far as historical accuracy is concerned, names, dates, numbers of men engaged, etc. Garcilasso is given to immoderate exaggeration. On the other hand, the Inca throws in a great deal of descriptive material, which the others generally omit, and this, as Swanton has pointed out, with due allowance for exaggeration, is generally pretty reliable stuff. Consequently for the purpose in hand, Garcilasso is probably just as good, if not better, than the other less imaginative (or let us say less appreciative) chroniclers.

Ranjel (Bourne trans. 1904). First mention of palisades villages just before reaching Mabila, which latter was also stockaded. The Alibamo fort, here called Limamu, is described as nothing more than a barricade. "And Thursday they came to another plain where the Indians had taken the position, having made a very strong barricade, and within it were many Indian braves. . . ." (p. 136) Pacaha. "This town was a very good one, thoroughly well stockaded; and the walls were furnished with towers and a ditch round about, for the most part full of water which flows by in a canal from the river; and this ditch was full of excellent fish of divers kinds... ." In Aquixo, and Casqui, and Pacaha, they saw the best villages seen up to that time, better stockaded and fortified, and the people were of finer quality, excepting those of Cofitachequi." (p. 140-1)

Elvas (Buckingham Smith translation, 1866). No mention of fortified villages until Mauilla, which country is described as rich and well inhabited, some towns "very large, and were picketed about". (p. 91) Beyond Alimamu, a "staked fort". (Elvas gives all the speeches but doesn't say much about the towns) Pacaha "was enclosed and very large. In the towers and the palisades were many loopholes. . . . At the distance of half a league to a league off were large towns, all of them surrounded with stockades." In addition to a stockade Pacaha was partly surrounded by a moat. Various other stockaded towns mentioned in subsequent wanderings west of the Mississippi, but without descriptive details.

DeBiedma (Buckingham Smith translation, 1866). Four days after Guasili, where they were supplied with edible dogs, they came to a town called Chiha. "In this province, where we began to find the

by the four accounts may be summarized briefly as follows: During the first part of the expedition, as the army blundered about through

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towns set about with fence, the Indians got a large quantity of oil from walnuts." (p. 241). Mavilla is described as "a small town very strongly stockaded, situated on a plain." (p. 243). According to this writer the stockade at Alibamo was a hastily constructed affair thrown up to oppose the oncoming Spaniards. ". . . they had done this to measure themselves with us, and nothing else." This somehow doesn't agree with what we know of Indian methods of warfare. Pacaha, situated on a plain "well fenced about, and surrounded by a water-ditch made by hand." (p. 251).

Garcilasso (Shipp ed.). According to Garcilasso the Spaniards encountered defended towns before they reached Apalache, though no particulars of the defensive works are given. Talisse, "palisaded, invested with very good terraces, and almost surrounded by a river." (p. 375). The town of Mauvila "is on a very agreeable plain, and surrounded with a very high rampart, palisaded with large pieces of wood fixed in the earth, with beams across on the outside, and attached within with strong cords. To the height of the pieces of wood was plastered (sic) with loam mixed with long straw, which filled the void between the pieces of wood in such manner that it appeared a wall of masonry. There were, every fifty paces, towers capable of holding eight men, and embrasures four or five feet from the ground. There were but two gates at Mauvila (one to the east, the other to the west), and a great square in the middle of the town, surrounded with the principal houses." (p. 379) Alibamo. "This fort formed a square with four lines of palisades, each four hundred paces long, and two others within. The first of all had three gates, so low that a cavalier could not enter; one in the middle, and the others at the angles; and only opposite to these entrances they had, in each line of palisades, three others, so that if the first were won, they defended themselves in the next. The gates of the last palisade faced a small river, with wretched bridges, which in certain places was very deep, with borders so high that one could hardly cross on horseback. The Indians thus had built the fort in this manner, in order to secure themselves against the horses, and oblige the Spaniards to fight on foot; for they did not fear our infantry." (p. 401-2). Doesn't sound like the sort of fort that was thrown up in a hurry. The capitol of Capaha (Pacaha in the other relations), "very well fortified, because it was the key of the province. This town is upon a small eminence, and has some five hundred good houses, and a ditch of ten or twelve fathoms, fifty paces wide in most places and forty at others. Besides it was filled with water by means of a canal which they had extended from the place to the Chucagua (Mississippi). This canal was three leagues long, at least as deep as a pike-staff, and so wide that two large boats abreast could very easily ascend and descend it. The ditch, which is filled by the canal, surrounds the town, except in a place which is closed by a palisade of large posts fixed in the ground, fastened by other

what is now Florida, Georgia and South Carolina, very little in the way of defensive fortifications was encountered. There are occasional vague references to fenced-about villages, nothing more. It was only when they reached Mabila (Mavilla, Mauvila) somewhere in the neighborhood of Mobile Bay, that they found fortified sites sufficiently strong to excite comment. All four writers mention the fortifications of Mabila (doubtless because it was here that the Spaniards took a beating), but Garcilasso's description is the most complete. We find that the walls of this town were not only bastioned, but also covered with clay daub. The description so far as it goes would apply to what Barrett found at Aztlan perfectly. Unfortunately Garcilasso doesn't tell us the shape of the site, nor whether the bastions were semi-circular or rectangular. The Alibamo fort is not so clearly presented. Ranjel and De Biedma speak of it as of a barricade hastily constructed to oppose the Spanish advance, though this doesn't square with what we know (or think we know) of Indian methods of warfare. Garcilasso's description, on the other hand, would indicate a more permanent structure, the sort of thing we have been considering. The villages

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cross-pieces of wood and plastered with loam and straw. There were, besides, in this ditch, and in this canal, such a quantity of fish that all the Spaniards and Indians, who followed the general, fished from it without it appearing that they had taken a single fish from it."

of Aquixo, Casqui and Pacaha -- without going into the vexed question of actual place identification we can say they were all in north-eastern Arkansas on the Mississippi -- were mostly fortified, the last one, Pacaha, having not only a stockade but a moat as well. Garcilasso, again, furnishes the best descriptive information, though it is impossible to say just what the relationship between the moat and the stockade was. The important thing, however, is that there was a stockade and that it was, like the walls of Mabila, plastered with clay.

Turning to the later French accounts, in 1700 Iberville visited the Biloxi on the banks of the Pascagoula about 20 miles above its mouth, and described the defenses of one of their recently abandoned towns as follows: "The village was surrounded by palings eight feet in height, of about eighteen inches in diameter. There still remain three square watch-towers measuring ten feet on each face; they are raised to a height of eight feet on posts; the sides made of mud mixed with grass, of a thickness of eight inches, well covered. There were many loopholes through which to shoot their arrows. It appeared to me that there had been a watch-tower at each angle, and one midway of the curtains; it was sufficiently strong to defend them against enemies that have only arrows." Here both factors, bastions and daub covering are explicitly stated. It is particularly interesting in view of the circumstance that, according to Swanton,

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(1) Bushnell, 1919, p. 94-95.

the Biloxi were Siouan and had fairly recently migrated from the
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north.

That excellent ethnographer of the Natchez, DuPratz, describes their forts as follows: "I cannot describe these forts better than by comparing them to a barrel hoop from which the withes have been cut. This circle is relaxed and the outside end is at some distance from the inside end, so that to enter the circle without passing over it, it is necessary to make a turn . . . The wall of these forts is composed of great posts, which are made of the trunks of trees a span in circumference, buried 5 to 6 feet in the earth and extending 10 feet above it, and pointed above. . . This wall is provided outside with half towers 40 paces apart. They make them doubtless to prevent scaling. The lower ends of the posts are supported inside by a
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banquette 3 feet wide by as much in height. . . " In this account there is no reference to clay daub, but elsewhere he tells us that the Natchez houses were often covered with this material, so it is
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quite possible that the palisades were also.

A description of Red Banks, Winnebago village visited by Nicolet in 1634, as it existed in 1855 includes the following:

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(1) Swanton, 1923, pp. 33-43.

(2) Swanton, 1911, p. 133. DuPratz also illustrates a rather sketchy plan of one of these fortifications (ibid. Pl. 3b) from which it would be hard to say whether the bastions were semicircular or trapezoid in shape. The artist seems to have been in some doubt about the matter.

(3) Ibid., p. 59.

"Its walls, at one time, must have been some seven feet in height, or thereabouts, having a ditch or moat on the outside, and provided on its three exposed sides with regular bastions. Its fourth side fronts on a precipice of perhaps one hundred feet in height, whose base is washed by the waters of Green Bay." (1) Another Siouan group be it noted.

Considering the fact that traces of fortifications of the Aztlan type are so easily destroyed by cultivation, etc., and, if not, their nature so seldom understood, there are a surprising number of references in the older archaeological literature. This is particularly the case, as we shall see, in the Tennessee Cumberland district where bastions seem to have been de rigeur. (2) A glance through Brown's "Archaeology of Mississippi" shows that defensive

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(1) Robinson, Chas. D., The Legend of the Red Banks. Wis. Hist. Coll., vol. 2, p. 491 (Reprint Edition 1903) Cited by Barrett, 1933, p. 71.

(2) Thomas (1894, p. 578), speaking of fortified sites in Tennessee generally, says: "It is not unusual to find along these walls slight elevations or projections, supposed by some to have been the foundations for towers or some such works for observation or defense. The inclosure near Sandersville, in Sumner county, before mentioned, furnishes an example of this kind; also that in Wilson county, near Lebanon, which is a circular earthwork having an interior ditch. Slight elevations occur at regular intervals along the inside of this wall. They are somewhat higher than the embankment and slope to the bottom of the ditch. This slope is divided into two parts by a level bench nearly 3 feet wide. Another inclosure in Williamson county, on the West Harpeth river, is of this type, the irregularly circular embankment being wider at intervals as if some tower or defensive structure had occupied each of these points." This is not particularly satisfactory, especially those elevations on the interior of the wall. As bastions they make no sense at all. There follows a description of the fortified site at Savannah, in Hardin county, West Tennessee. This is better. The embankment is five

works were common in that state, but only one site in the extreme northwestern corner of the state shows features of the

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sided (let us hope the sides are straight) the ends terminating on the river bank. "At intervals of 80 yards along this wall are the remains of bastions which extend about 20 yards to the front along the main line and 30 yards at the main angles. About 55 yards in advance of this line, and parallel to it, is a similar but less elevated embankment, now partly obliterated, but still traceable. The bastions of this latter line project 40 feet in front and alternate with those of the main line. Three miles below Savannah, in the same county, a similar system of earthworks is found at the foot of a bluff which rises 50 feet above the bottom lands of the Tennessee river. There is in this instance, however, only a single line of wall with the bastions projecting to the front. In the construction of the walls these works bear a remarkable resemblance to those of "Aztlan" in Jefferson county, Wisconsin. The work in Vanderburg county, Indiana, in the group known as "the Angel mounds," heretofore described, evidently belongs to this type and was probably built by the same people." This is pretty clearly the sort of stockade we are after. Unfortunately I cannot say anything of the culture associations. Moore passed by without stopping on his Tennessee river survey and so far as I know subsequent investigators have followed his example. The nearby site of Shiloh, about 12 miles up the river, has been dug by F.H.H. Roberts but the results have not been published. My own recollection of material seen at Shiloh would relate it rather closely to Cahokia. This is admittedly tenuous in the extreme. Nevertheless I feel perfectly secure in ascribing the Savannah site to the Middle Mississippi Phase, very likely to that aspect of it to which Cahokia belongs. Hence the connection with Aztlan is not too far fetched after all.

Although the Aztlan report was published as late as 1933, for some reason or other Barrett neglected to consider Myer's report on excavations in Central Tennessee published in 1928. One of Myer's sites, the Gordon site near Nashville, furnishes the clearest example of a rampart of the Aztlan type to be found anywhere in the entire Mississippi valley. Furthermore the Gordon site is especially important as a type site of what is called in some quarters the "Gordon-Fewkes" Aspect of the Middle Mississippi Phase, but which I am going to call hereinafter simply the Cumberland. As such it would seem to have important bearing on the question of the classificatory position of Aztlan. The Gordon site is enclosed by a great irregular oval rampart with bastions approximately every 55 feet. Myer excavated a section of this wall but found no post-holes or other indications of stockade construction. He assumes, however, and I think rightly, that a stockade was present nevertheless, and that the bastions

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Aztlan type. There is some possibility, however, that Nanih Waiya, the famous Choctaw shrine, was defended by a wall of this

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were the remains of semi-circular towers. How he knew they were semi-circular if he found no post-holes is another question. How he knew they were 17 feet high is another enigma unexplained in his report. The remains of the bastions at Aztlan would never have suggested a square construction, I am sure, until the location of post-holes revealed their shape. I think it reasonably safe to assume the same condition here.

Somewhat similar to the Gordon site, and near enough to presuppose a relationship, the Lindsley site, near Lebanon, in Wilson county, Tennessee, was partly excavated by F. W. Putnam and published in the 11th Annual Report of the Peabody Museum, 1878. The site was enclosed by a large irregular oval earthwork and ditch. Projecting inward from the wall, at "nearly regular" intervals, were slight elevations about 18 inches above the normal height of the wall. The circumstance of their location on the inside rather than the outside of the wall need not disturb us unduly. No doubt the presence of a ditch (there is none at Aztlan and Gordon) necessitated a modification in the scheme of construction. No excavation was made in the embankment, consequently the assumption that these elevations represented the remains of bastions or fighting platforms is purely inferential, but very likely safe enough. The materials obtained in various mounds within the enclosure is similar to that from the Gordon site, is in other words typical of the Cumberland Aspect, hereafter to be described in detail.

Jones, in his early work on the archaeology of Tennessee, describes a site on the West Harpeth river (Hughes site) surrounded by a small oval earthwork about 8 feet high. "The ditch is on the inside of the line, and at certain intervals the embankment is much thicker, or wider, as if some tower or defensive structure had been erected at these points." (Jones, 1876, p. 80).

Judging from a very rude sketch in Edwin Curtis's field-notes (Peabody Museum files) the Rutherford site in Sumner county, Tennessee, which yielded Cumberland material of the most characteristic sort, was surrounded by an oval enclosure with projecting bastions at regular intervals.

(1) Brown, 1926, p. 120-121. The Bowdre Mounds in Tunica county. Here a rectangular enclosure of three sides, the fourth abutting on a river, is said to be formed entirely of small mounds "sometimes connected by lower elevations". This, doubtless, would be one way of describing the walls of Aztlan in their present condition. The sketch figured by Brown (Fig. 24) is only approximate, but shows a striking similarity to Aztlan in general features.

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 type. A very rapid survey of the literature of Louisiana and Arkansas failed to uncover any evidences of bastioned works, nor are they found, I believe, in southeast Missouri, though in all three states ordinary unbastioned walls are very common. A famous site in southeastern Indiana on Barrett's own word showed striking
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 similarity to the Aztlan defences, and there is a possibility that

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(1) This famous historic Choctaw site, on the upper Pearl river, legendary place of origin of the Choctaw people, is thought actually to have been an older site reoccupied by incoming Choctaw peoples. It was unquestionably a fortified site, though very little is left of the original ramparts today. Swanton, after reviewing a number of early descriptions of the site says: ". . . the engirdling rampart is undoubtedly just what almost every visitor to the spot from Adair down has taken it to be, the remains of a work defending the settlement about the mounds and undoubtedly crowned with a stockade interrupted at intervals by towers." (Swanton, 1931, p. 10).

Swanton is not alone in assuming the presence of towers. H. S. Halbert, referring to the frequent gaps in the rampart says that he is "convinced that these gaps were left designedly as places for the erection of wooden forts or towers." (Nanih Waiya, the sacred mound of the Choctaws", Pub. Miss. Hist. Soc., vol. II, Oxford, Miss., 1899, p. 223).

(2) The Angel Mounds, in the extreme southwestern corner of Indiana, are surrounded by a long curvilinear embankment with bastions at intervals ranging from 97 to 120 feet, in other words very similar to the Aztlan stockade. Barrett visited the site in 1932 in order to check Thomas's description. Found both mounds and their enclosing wall, particularly the latter, badly wrecked, but sufficient remained to satisfy him of a "striking similarity" to Aztlan, also to a site known as the Lynn site in Union county, Illinois. Material from local collections gathered on the Angel site showed a very close relationship to the Lynn site, much closer than to Aztlan (Barrett, 1933, p. 58).

Ely Lilly's beautiful volume on the archaeology of Indiana, recently published, contains an excellent description of this site with a map. The resemblances to the Aztlan defences are unmistakable. "Furthermore, it is almost certain that a high stockade, built of thickly plastered posts and guarded by bastions spaced approximately every hundred feet, extended for twenty-six hundred feet around the north and east sides of the large mound, and served as protection against loud-crying enemies." (Lilly, 1937, p. 44).

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Cahokia was at one time defended in a similar manner.

To summarize the foregoing hasty conspectus of references to fortifications of the Aztlan type one may point out that both archaeological and documentary sources concur in placing the distribution along the full length of the Mississippi valley, but almost entirely to the east of the river. Archaeologically the clearest connections are not with Cahokia, as might have been expected, but with the lower Ohio and the Cumberland in Tennessee. Ethnographically the trait seems to have been shared by peoples as far apart as Green Bay and the Mississippi coast. It is not without interest that at these extremes of distribution the associations are with Siouan groups, the Winnebago and Biloxi. It is perhaps significant also that the gifted Natchez possessed the trait, between whose pottery and that of Aztlan there are striking, though generalized, pottery affiliations. As a provisional conclusion it may be suggested that bastioned and clay-covered palisades are involved in an important complex whose bearing is too wide for classificatory determination within the Mississippi Pattern, but one that can be considered only in relation to the Pattern as a whole.

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(1) The possibility that Cahokia was originally a fortified site is an interesting one, because of the close relationship with Aztlan. An early description (Brackenridge, 1817) refers to a "great number of small elevations of earth, to the height of a few feet, at regular distances from each other, and which appeared to observe some order". Barrett thinks this may indicate a bastioned wall as at Aztlan. It seems far more likely, however, that the description refers to house sites. One would need far better evidence than this before inferring the existence of stockade defenses at this great site.

I have perhaps overdone this matter of the Aztlan defences, but not without a definite object. This is the sort of trait or complex of traits, which is not likely to be used by the McKern classifier as a determinant, for the simple reason that it occurs only sporadically, would therefore tend to weaken the statistical cohesion of a group of sites or cultures. In other words the fact that it can so often fail to appear, even in cases where originally present makes it a hindrance rather than a help to the classifier. Therefore he quite naturally omits to consider it altogether. But its cultural significance is, it seems to me, incontestible. Consistency of occurrence, it would seem, is no index of the cultural significance of a trait. Certain traits, and this is one of them, will depend for their occurrence on local environmental or political conditions. How many fortifications, ancient or modern, can you find in Cambridge, Massachusetts? We must conclude, therefore, that there are traits, culturally important oft-times that are of no use to the McKern classifier, worse than that, they impede his progress, unless he chooses to disregard them altogether (which in nine cases out of ten he will undoubtedly do). If it be granted that this is a weakness, is it not a weakness inherent in any method that attempts to objectify cultural data to a point where it can be dealt with statistically?

Features within the enclosure: The arrangement of features within the Aztlan fortification may be readily seen in the accompanying plan (Fig. 13). Of the two truncated pyramidal

structures in the northwest and southwest corners respectively, the latter is worthy of comment in that it was terraced in two stages. Terraced mounds are by no means common. So far as I know their occurrence is limited chiefly to the lower Mississippi (1) section. A further interesting feature of this mound, and one that may also have a southern flavor, is the large "ceremonial" pole that stood in the center of the platform at the first stage of construction. Du Pratz, speaking of the fortified villages of the Natchez, says: "In the middle of the fort is placed a tree, the branches of which are cut to within 8 or 9 inches of the trunk to serve as a ladder. This tree serves them as a watch-tower, (2) where a young man on guard can discover the enemy at a distance." The third feature, a large low platform, was practically obliterated by cultivation. Very little could be said of its original shape. Excavation revealed it as the site of a large rectangular structure, the nature of which was not quite clear. The remainder of the area was taken up with smaller mounds, vestiges of walls, similar to the main rampart, and house sites, but unfortunately all these minor

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(1) "Terraced" mounds in the lower Mississippi valley are, I believe, rarely if ever in more than two stages, in other words, a small mound superimposed on a larger one. The outstanding example of this type of mound is Troyville in central Louisiana (Walker, 1936). The relations are with a cultural horizon that is thought to antedate the Mississippi type of culture, as we shall see in a later section.

(2) Swanton, 1911, p. 133.

features had been so badly disturbed that it was impossible to reconstruct their original arrangement. Consequently, it is impossible to say whether the plaza type of assemblage, which is so marked a feature of Middle and Lower Mississippi sites generally, is also present here.

As we shall see, a marked tendency for mounds to be oriented in respect to the cardinal points of the compass is one of the characteristics of Cahokia and related sites. With only two rectangular mounds at Aztlan, their shape furthermore considerably altered by cultivation, it would be rash to make a statement on this point. Nevertheless, as may be seen by reference to the plan of the site (Fig. 13), the two mounds in question do exhibit a fairly close orientation with the cardinal points. One might say at least that the situation is not inconsistent with that of Cahokia.

Because of the considerable disturbance to surface features on the site the information on house types is somewhat meagre. Apparently both rectangular and circular forms were encountered, and in at least one instance the floor was slightly below ground level. No details of actual construction were recovered, except that there was abundant evidence of an outer covering of wattle-and-daub. Interior features comprised the ubiquitous fire-basin, in at least one instance carefully made of puddled clay, and storage pits.

The information on burials is equally unsatisfactory. There were numerous evidences of intrusive occupation of the site, consequently with the exception of one burial inclusive in a mound,

Barrett was not sure that any of the burials encountered were associable with the original inhabitants of the site. Therefore the less said about burial practices of the Aztlan people the better.

The less said about unburied human remains the better, also. The inhabitants of Aztlan were cannibalistic to a distressing degree. The evidence on this point is entirely unambiguous. The usual saving formula "ceremonial cannibalism" will not suffice (1) here. As, I think could be shown, for some of the Iroquois, human flesh must be regarded as a food factor of some consequence. Unfortunately, here it is impossible to say who the cannibals were. Were they the peoples responsible for the Mississippi or the Woodland culture at the site? Perhaps both.

Artifacts: Stone: Because of the presence of at least two distinct occupations at the site, considerable care is necessary in discussing the artifacts to make sure that intrusive material is not included. We are interested, of course, only in those types associable with the original inhabitants of the site.

Projectile points show a preponderance of flat triangular forms with straight, or more rarely concave, bases. This basic type is often modified by the addition of side notches, occasionally basal notches. These last are sometimes referred to as the "Cahokia type" because of their frequent occurrence on that site. They have,

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(1) Barrett, 1933, pp. 358-363.

however, a wide distribution in a general Middle Mississippi context. Nevertheless the Aztlan points as a whole, independent of this specialized type, show a very close relationship with Cahokia. Moreover they are definitely associated with the original features of the site, the mounds and enclosing earthwork. Larger points and blades also tend to an elongated triangular form. There were also two very beautifully made knives of a lanceolate or leaf-shaped form, their association, however, was not certain. Flint spades appeared in limited numbers, of a broadly oval type. No hoes were reported. These very interesting and characteristic artifacts will be discussed at greater length in connection with Cahokia, where they are more at home. Sufficient to note here that they are perhaps the significant stone artifacts from the point of view of specific Middle Mississippi affiliations. The 3 specimens found at Aztlan are said to be the only examples that have ever turned up in the entire state of Wisconsin. Furthermore they are made of a flint that is not found in the region. As evidence of southern, and specifically Middle Mississippian connections they are undoubtedly of considerable importance.

The evidence for polished stone is less decisive. Both celts and grooved axes have been found in approximately equal quantity. Barrett assumes, probably with reason, that the celt forms are associated with the original inhabitants, but is unable apparently to prove it by direct association. The apparent absence of the

adze may be significant, also the lack of the small partly polished celts and adzes that are, as we shall see, particularly characteristic of certain aspects of Middle Mississippi, and occurred fairly consistently in Fort Ancient. Discoidals, assumed to be expectable in Mississippi cultures were not found in sufficient numbers either to prove or disprove the assumption. Of four specimens reported only two are complete. Barrett comments morosely: "The use of the discoidal is still one of the unsolved problems of archaeology." (1) So also, I might add, is the actual distribution of this interesting artifact. I have already expressed a suspicion that it may not, after all, be primarily a Mississippi trait. It will, at any rate, bear watching. There were, of course, various types of grinding stones, polishers, arrow smoothers, grooved mauls, hammer stones, etc., which I pass over in guilty silence. They are doubtless not unimportant, but in the present state of our knowledge, at any rate of my knowledge, useless in culture determination.

Ear-plugs of stone are not common anywhere in the central and eastern areas. A fairly large number have turned up at Aztlan, rather unexpectedly, it would seem, in view of the marginal location of the site with respect to what is almost certainly a southern trait. The type is a rather special one, a double-disked affair with an outer disk larger than the inner, (Fig. 14), radically different from the Hopewell type of plug

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(1) Barrett, 1933, p. 277.

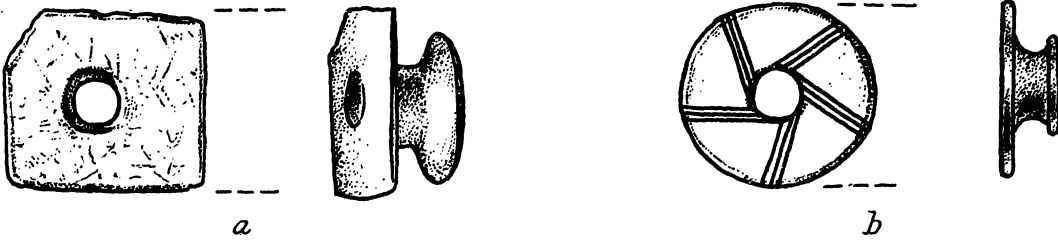


Fig. 14. Stone ear plugs. (Barrett, 1933, Figs. 159-160)

which is more like a rather narrow napkin ring. In one instance the outer face is decorated by a series of incised lines radiating obliquely from the center in a manner very suggestive of the "whorl" type of design on similar objects, as well as pottery, in the Red River district of southwestern Arkansas and eastern Texas. One specimen at least, possibly others, had been originally overlaid with sheet copper.⁽¹⁾

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(1) Barrett, 1933, p. 348 et seq.

The same type of ear-spool was made in pottery, bone and shell. Any proper consideration of distribution should include these materials as well. However, the stone ear-plug of this type, particularly when overlaid with copper, is so characteristic of the middle and lower Mississippi region, that it warrants special comment here. The type has been reported from Cahokia, central Tennessee (Cumberland), eastern Arkansas, the Red River region of southwestern Arkansas and east Texas, the Gulf coast of Louisiana, the famous Spiro mound in eastern Oklahoma. No doubt the distribution indicated here is far from complete, nevertheless I rather doubt if the general outlines would be altered very much by the inclusion of further examples.

Pipes of stone, curiously enough, were practically non-existent. None at all were found in Barrett's excavations. Several fragmentary specimens have turned up in surface collections from the site, but

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- (1) Barrett, 1933, p. 350.
- (2) Thruston, 1897, p. 169.
- (3) Thomas, 1894, p. 225.
Moore, 1911, p. 430.
- (4) Harrington, 1920, Pls. CXXVIII - CXXIX.
Pearce, 1932, p. 676-677.
- (5) Collins, 1927b, p. 205.
- (6) Information from Dr. Forrest Clements.

of course none of them can be correlated with the earthworks. This might not be disturbing, were it not for the fact that no mention of pottery pipes is made. Are we to infer that the builders of the Aztlan site may have been unacquainted with the use of tobacco?

Bone: A large amount of material in bone and antler was obtained at Aztlan, but in somewhat limited variety. There were, of course, a great number of awls and piercing tools of various types, likewise a considerable number of socketed antler points. These we have learned to expect on any Mississippi site, at least in the northern reaches of the distribution of that culture. How far to the southward they uphold their usefulness as a Mississippi determinant remains to be seen. The short cylinders of antler already described, usually referred to as "antler flakers", apparently have a parallel distribution, and a similar importance as a Mississippi diagnostic. They are not mentioned in Barrett's report but several specimens are illustrated. In general the bone and antler output at Aztlan is far less striking than in Fort Ancient and Iroquois. A large number of types, characteristic of these cultures were either lacking entirely or represented by only one or two specimens: fishhook, deer jaw grater, beads, pendants, armlets, comb, flute, friction rattle, were absent altogether; the barbed harpoon and draw-shave beaming tool were represented by one specimen each. I have already suggested that possibly Fort Ancient and

Iroquois did not owe their high development in bone working to their supposed Mississippi ancestry. The situation here at Aztlan appears to reinforce the possibility.

Shell: A similar disappointment follows an examination of shell work at Aztlan. I have so far proceeded on the a priori assumption that this is one of the most useful categories of material for the definition of Mississippi culture. The relative importance of this material in Fort Ancient and Iroquois was confidently put down as in large degree due to Middle Mississippi influence. Here, on an undoubted Middle Mississippi site, we should expect an even greater variety and profusion of shell materials. Which is precisely what we do not find. Instead, we get a meagre inventory, practically confined to perforated hoes, made from a large fresh-water bivalve (*Quadrula undulata*), and a few marine shell beads and pendants. No gorgets, masks, disk-headed pins, shell cups, and no sign of any decorative work in shell, and no fresh-water pearls. A possible explanation of these lacks, of course, is the fact that only one important burial assignable to the Mississippi occupants of the site was encountered. Most of these objects are found only with burials, consequently their absence is not conclusive. Nevertheless it suggests careful attention to the subject of shellwork generally as we proceed further in our examination of Middle Mississippi sites.

Copper: On the occurrence of copper at Aztlan, we cannot do better than to quote Barrett directly: "Though the chief, if not

the only, source of copper available to the aborigines of the major part of North America was located in the Lake Superior region, and though copper implements and ornaments are very commonly found in many parts of Wisconsin, it would seem that this metal was rather sparingly used in ancient times at Aztlan. . . . Few implements have been found at this site and it seems likely that a good share of these were used by other peoples than the actual builders of the ancient works, for we know that this particular locality was inhabited by Indians in post-Columbian times, and it is quite possible also that it may have been occupied prior to the date of (1) the building of the enclosure." Actually the only clear evidence of the use of copper by these ancient ones was a few scraps of sheet copper, and the plated ear spools already described. To which, possibly, should be added a few wretched beads of rolled copper, and a curious serpentine tubular object of extremely thin sheet copper formed around a core of rectangular cross-section. An unique specimen apparently, the use of which is entirely problematical. Other objects of copper found at the site, such as globular beads and small awl-like implements, arrow points, knives, etc. are types common in Wisconsin, and are probably not to be assigned to the Mississippi element at the site.

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(1) Barrett, 1933, p. 344.

The expression of disappointment over the paucity of copper in Fort Ancient and other Upper Mississippi cultures, may be repeated here with additional emphasis. If the Mississippi people who penetrated to the wilderness of Wisconsin carried with them a moderate knowledge of metallurgical techniques, particularly if they had learned to make and use implements of copper, one would expect that the new accessibility of the material, together with the inevitable contact with copper using peoples, would result in an intensification of metallurgical development. Apparently nothing of the sort took place. It has been customary, I believe, to account for the lack of copper implements in southern cultures, particularly those associated with the Mississippi Pattern, by emphasizing the difficulty of obtaining the raw material, at the same time pointing out their high skill in metallurgy as evidenced by the various uses of sheet copper. In other words they could easily have had all sorts of tools and implements, and would have, if the price of copper had not forbidden its use for such terrestrial purposes. Perhaps it is necessary to adopt a slightly different point of view and simply recognize the fact, without trying to account for it rationalistically, that the use of copper for practicable implements is not in the Mississippi scheme of things. It is from this point of view, for the present, that I shall examine the uses of copper by other Mississippi peoples.

Pottery: It is when we come to pottery that the mixed nature of the site becomes most apparent. Both Mississippi and

Woodland types are present in force. Whether the two types were present in stratigraphic relationship, or whether there was a continuous mixture throughout the occupation of the site, is a question that Barrett was unable to answer. The bulk of the site was too badly churned by cultivation to reveal stratification, had it been present. On the other hand, pottery from the great midden at the base of the wall on the river side, to a depth in some cases of seven feet, was mixed from top to bottom. Furthermore there were numerous transitional forms, cases where one type of decoration was applied to the other, etc. Barrett's conclusion, therefore, was that two distinct peoples had mingled here and remained together in association long enough for considerable hybridization to have taken place. Needless to say it is impossible to associate one type or the other definitely with the mounds and fortification. Barrett simply assumes, and we shall do the same, that it is the Mississippi type of pottery that is associated with constructional features. Both are equally out of place in Wisconsin, both have definite southern connections, in brief, both are specifically Middle Mississippian. The chances in favor of their association are, therefore, overwhelming. It doesn't seem to me that we have to consider any other possibility.

Of the two types, Mississippi is easily the dominant ware. A compact, fairly hard, well-fired paste, shell or "cell" tempered (a distinction without a difference), ranging in color from almost

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(1) "Cell" tempering is, as I understand the term, merely leached out shell tempering. If so I see no reason for using the term at all.

black through various grays and drabs to red. Both inner and outer surfaces are smoothed, and quite often highly polished. Texturing by means of a cord-wrapped paddle is not present. As Barrett observes, if such a method was used, all traces of it were obliterated in the smoothing. The absence of cord-marking here may be significant. It occurs abundantly in other foci of the Monks Mound Aspect, and at Cahokia itself. Cahokia, as we shall see, is probably a stratified site. Cord-marking is particularly characteristic of the upper level, whereas it is the pottery of the lower level that shows the closest relationship to Aztlan. The non-appearance of cord-marking at Aztlan, therefore, may indicate that it is not fundamental in this aspect of the Middle Mississippi Phase, but a later development, induced, no doubt, by contact with Woodland peoples. I shall return to this interesting possibility later.

Barrett does not consider redware apart from painted ware, so it is difficult to say much about its relative importance in the sherd content of the site. Nor is it possible to say with certainty whether or not it is analogous to the red slipped ware of regions farther south. The author's description on this point leaves something to be desired. "Painting has been found only in a few instances, where the entire surface was covered with a red coating, or with areas of red and others of white. From its present condition it would appear that this form of decoration was a true painting and not the result of merely applying a slip coating."⁽¹⁾

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(1) Barrett, 1933, p. 326.

Pottery of the Mississippi type at Aztlan shows a great variety of forms and range of decoration. Fig. 15 shows the full range of shapes. Many of these types, of course, are represented only by a single specimen. The dominant forms are as follows: a bowl with restricted orifice, something like the "seed-bowl" of the Southwest (10-12); the carinated bowl or jar (17-20); and the globular jar with or without handles and/or lugs, "the standard Mississippi jar form". Of the minor forms exhibited here, most are far more common to the south; their distribution and significance can be more profitably discussed later. In general one may add that all these shapes, without exception, show a marked contrast to the Woodland forms dominant in Wisconsin, and prove beyond cavil that this type of pottery is intrusive and of southern derivation.

As adjuncts to the standard jar form, handles are more common than lugs apparently. The prevailing type is the common vertical loop, circular or oval in section. No flattened strap-like handles were encountered. Attachment is "integral", i.e. there is no indication of riveting through a perforation in the body wall. The latter is a more satisfactory method, presumably more highly developed, perhaps a later method of attachment. Occasionally handles are modified by a protuberance at the point of juncture with the rim. I have already commented on the presence of this feature at Fort Ancient and its counterpart in a supposed early horizon at Macon. Apparently the thing is going to turn up all over the Mississippi

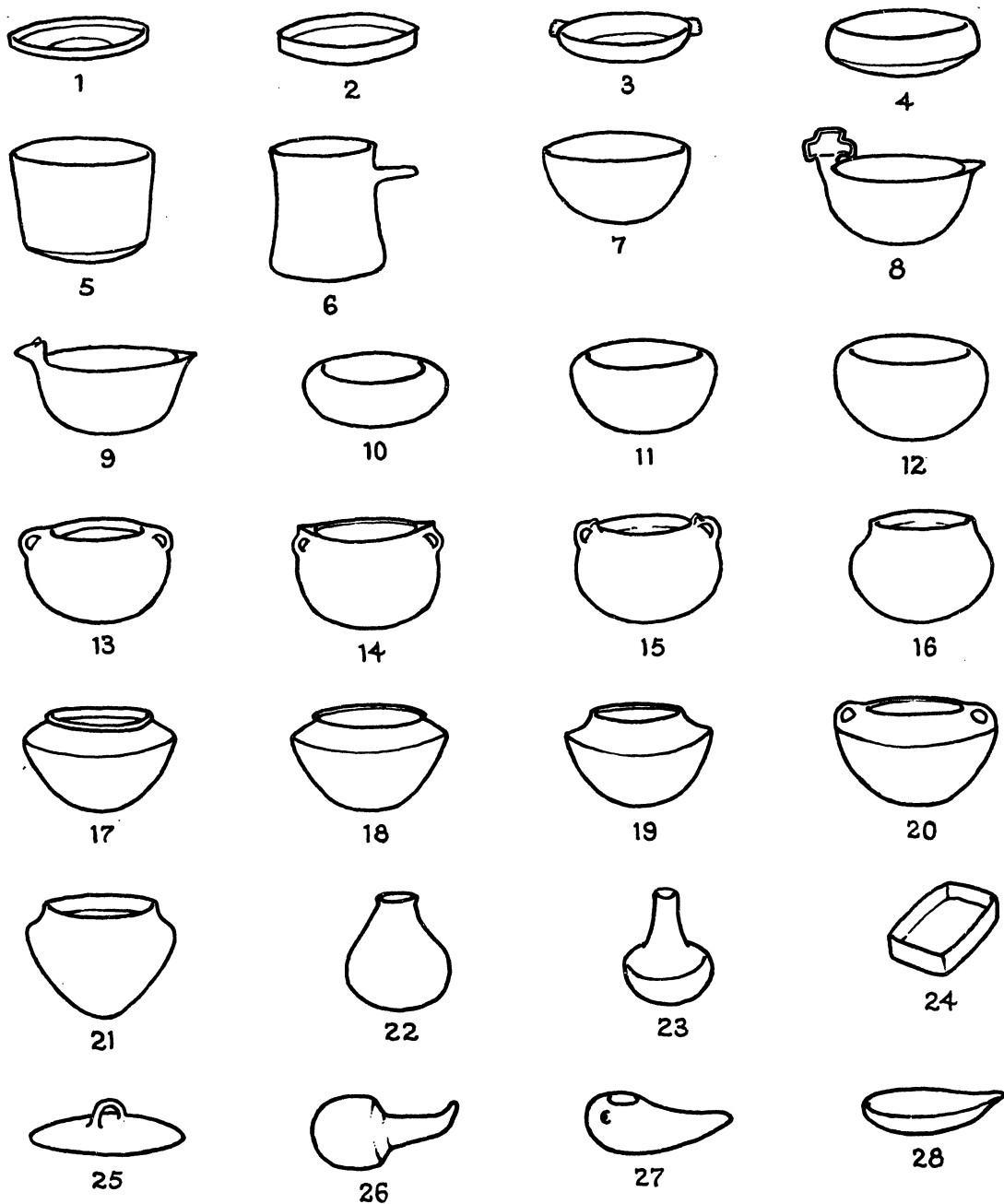


Fig. 15. Mississippi pottery shapes at Aztlan.
(Barrett, 1933, Pl. 97)

area. Lugs are not particularly noteworthy, the commonest, a simple rounded or pointed flange-like extrusion of the rim, one of the commonest ceramic details in all Middle Mississippi cultures.

Decoration is practically confined to incision, with punctation, as usual, in a secondary role. Very few instances of painting in red and white came to light. Incised designs on the whole are simple, recti- and curvilinear motives, predominant among the latter, bands made up of simple interlocking scrolls. Punctate patterns are rare, occurring mainly in association with painted vessels of the seed-bowl type. In some cases, zigzag lines of punctations produce triangular areas which are painted alternately red and white. Without going into (just yet) the complicated question of Mississippi pottery types and their definition, the possibility that this painted-punctate ware may be a distinct type must be recorded. Furthermore it may be a type peculiar to Aztlan. Offhand I do not recall any similar ware in Middle Mississippi cultures further south.

In view of the possibility that this Aztlan material represents an earlier stage of the Middle Mississippi ceramic development, it becomes worth while to consider some of its negative aspects. To begin with we look in vain for the "soup-plate", a dominant shape at Cahokia. Less significant perhaps, but interesting, the absence of basal features, tripod and annular base, of effigy forms, the gourd excepted, and of compound and eccentric vessels generally. In decoration, while a few sherds of red and white painted ware appeared, there is no sign of "lost color", a type of decoration that is quite common in the closely related Cumberland Aspect.

Miscellaneous pottery objects: Under this heading have been grouped the various smaller objects of baked clay that seem to be especially characteristic of Mississippi culture. The list here is not a long one. Miniature vessels are apparently present, "thumb pots" Barrett calls them, though none are illustrated nor described. Ladles, or something very like them, may be seen in Fig. 15, numbers 26 and 27, an example of the "scoop" type perhaps in no. 28. All of these types, however, are represented by single specimens. Pottery disks are present, but not common. There is here, also, a type of pottery disk that seems to have been made direct from the clay, not from a vessel fragment. Pottery trowels or anvils, of a short-stemmed mushroom like form, have appeared. Webb's opinion, already cited, that they may have been used in the manufacture of salt-pan pottery is not borne out here, for no salt-pan ware has been reported from Aztlan. The only object of personal adornment in pottery is a single pottery ear-spool of the double-disk type already described under stone working. The lack of pottery pipes has been commented on, but I cannot refrain from emphasizing it. The wide use of clay in preference to stone for pipes is supposed to be a general Mississippi feature. The complete failure of the Aztlan material on this point is extremely interesting, possibly significant.

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(1) Webb, 1931a, p. 408.

Summary: Aztlan is undoubtedly one of the most interesting and important sites in the Mississippi Valley. Nor does its excavation and description lack completeness. The results, nevertheless, from the point of view of culture definition, are somewhat disappointing. Perhaps owing to the fact that so few burials were encountered, the cultural inventory is meagre. Information is lacking in some categories of material, notably shell and copper, as well as more specialized types of pottery (mortuary in other words) that ordinarily bulk large in Mississippi sites. Another source of difficulty is that the site is either stratified or mixed, with both Woodland and Mississippi components. Except in a few instances the association of individual specimens with one or the other cannot be fixed. In spite of all these factors of uncertainty there are a few points that come out perfectly clearly: (1) Close relationship with Cahokia is evidenced by similarities in stonework and pottery. Further, the affinity is with the earlier period at Cahokia, as we shall see. (2) In general site characteristics, particularly the defensive factor, relationship appears to be closest with the Cumberland and with Lower Mississippi in general. This last suggestion is backed up slightly by the occurrence of a special type of ear-spool, which seems to be at home in the lower Mississippi region.

2. Spoon River Focus

In the whole field covered by the numerous manifestations of the Mississippi Pattern there are only two instances where the student may have recourse to published lists of diagnostic traits compiled in the manner dictated by the McKern method. One is Griffin's paper on the Fort Ancient, the other, that part of Cole and Deuel's recent book "Rediscovering Illinois" covering what they have designated as the Spoon River Focus of the Middle Phase of the Mississippi Pattern. I did not make use of the first in an effort to avoid unnecessary detail, also because I wanted to present the material in slightly more dramatic form (if one may be allowed to use a wholly inappropriate expression). A list of determinant traits is archaeology at its very dullest! Here I am not under the same anxiety to avoid detail, but I still feel that a more discursive presentation is called for, particularly in view of the necessity of comparison with cultures that have not been reduced to tabular form. For purposes of comparison with the description that follows, Cole & Deuel's table of determinants is reproduced in full, Fig. 16.

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(1) This is, of course, no longer true. Since the above was written a number of important analytical studies have appeared.

(2) Cole & Deuel, 1936, pp. 220-221.

Fig. 16. Diagnostic traits of the Spoon River Focus.
(Cole & Deuel, 1937, p. 220)

1. Rectangular houses.
2. Houses placed in depressions with raised earthen edges.
3. Walls set in shallow trenches; corners apparently do not meet.
4. Storage pits sunk in floors of dwellings.
5. Firepit near center of structure.
6. Burial grounds on bluffs.
7. Burial grounds developing into mounds through successive burials.
8. Burials by interment (i.e. by placing on surface and heaping soil over body).
9. Bodies in pits.
10. Skeletons fully extended.
11. Burials with abundant grave goods.
12. Pottery vessels placed with dead.
13. Bone hairpins.
14. Bead necklaces.
15. Beads, cylindrical, of rolled sheet copper.
16. Whole shell beads (marginella, olivella, snail shells - ground on one side).
17. Use of small and medium-size Busycon shells for ornaments and cut shell beads.
18. Turtle-shell or bone bracelets.
19. Rattles - personal ornament.
20. Equal-armed pipes (stone and pottery).
21. Discoidals.
- 22-26. Pottery, Type 7 (5 points).
- 27-28. Projectile points, Type 4.
 - a) Simple triangular.
 - b) Side notch, often with single basal notch.
29. Flint drills, winged, made from flake.
30. Flake knives, edges chipped on alternate faces.
31. Flake knives, chipping on one face only.
32. Knives, asymmetrical, double-pointed.
33. Shell hoes.
34. Shell spoons.
35. Ladles of marine shells.
36. Bone awls made of deer ulna, tarsal of turkey.
37. Bone fishhooks.
38. Antler projectile points.
39. Digging implements of wapiti bone.
40. Circular disks cut from potsherds - perforated and unperforated.
41. Stone celts.
42. Abrading stones (two types).

Sites: The sites comprising the Spoon River Focus are located along or near the lower reaches of that stream just above its confluence with the Illinois. They are all within the boundaries of Fulton county in west-central Illinois. A number of mounds and three village sites of this focus have been wholly or partly excavated, in addition to which there are a number of cases in which a Mississippi component appears on stratified sites predominantly non-Mississippian in affiliation. To which may be added the famous Dickson cemetery at Lewistown, a large burial mound which has been carefully excavated, the skeletons and offerings left in situ, by the owners, as a commercial attraction.

The result is a large body of material, together with some evidence concerning house types and mound construction. From the point of view of general site characteristics, either the work or its presentation is disappointing. It is impossible to say anything about the general arrangement of mounds and their relation to houses, etc. There is no mention of earthworks or other defensive factors. Mounds themselves are rather ill-defined in shape, seem to have been formed by gradual accumulation of burials rather than by any deliberate intention. The rectangular truncated pyramidal mound is conspicuously absent. In brief, we look in vain for such characteristics of mound and village site arrangement as have come to be inseparably associated with our idea of the typical Middle Mississippi site.

House types: In respect to house types we are in better case. At the Fouts village site appeared fifteen sunken depressions with raised edges. Upon excavation it was disclosed that they were

actually the remains of rectangular houses with slightly depressed floors (about 20" below the surrounding level). Outside walls were defined by shallow trenches, but whether these were made to receive the butts of supporting posts is not clearly brought out. The authors believe rather that they were to receive the bottom edges of the slabs of bark with which the structure was presumably covered. There are occasional post-holes indicating interior supports, but without any consistent arrangement. Compared with analogous house forms in other cultures, it must be confessed that these appear to be flimsy and ill-defined. There was no indication whatever of wattle and daub construction. A detail of possible significance is that fact that the walls did not meet at the corners, a circumstance difficult to account for from the constructional point of view. The openings left were too small to serve as entrances, though to be sure no other entrance was indicated on the ground plan. Evidently it was somewhere above the level of the floor. Interior arrangements were simple in the extreme. A rather ill-defined fireplace, not always centrally placed, and occasional storage or refuse pits. In every respect these houses are unimpressive. If a rectangular plan is supposed to imply a higher development of architecture, this surely is one instance where the implication is completely belied.

Burials: Burials are remarkably consistent, a great deal more so than is usual. They are predominantly extended in the flesh, with a few bundle and an occasional flexed or semi-flexed burial.

Grave furniture is, in the main, abundant, particularly in the form of pottery. Burials may be either in pits or on the surface with earth heaped over them. They are jumbled together in great numbers in a restricted space, which in the natural progress of accumulation becomes a tumulus. It is doubtful whether the term mound, as generally understood in North American archaeology, should be used in connection with these burial accretions, since there is no indication of any deliberate attempt to raise a structure of earth. Perhaps this might be said of a great many burial mounds in the Mississippi Pattern, in Fort Ancient, for example, and in the Cumberland, where mounds are formed entirely by accumulation of stone graves. In any case there is a sharp contrast to burial mounds as understood in the Hopewell and other Woodland cultures.

Artifacts: Stone: Owing to the large cemeteries and the prevailing tendency to furnish the dead rather abundantly with funeral offerings, we are able to give a fairly complete catalogue of material culture. At the same time it is not overweighted on the mortuary side because we have the village site material to go with it. The Spoon River material, thus, backs up the Aztlan and Cahokia information just where it most needs it. Taking all three manifestations together, as I shall do at the end of this section, a fairly comprehensive cultural picture of the Monks Mound Aspect ought to result.

Projectile points are consistently of the small flat triangular type, already encountered at Aztlan, with simple unnotched type

predominating, quite often with side notches, occasionally with basal notches as well. Crude flake knives, retouched on one or both sides, but chipped usually on one face only are apparently quite common. Various types of scrapers, including end-scrapers and spoon-bill types are characteristic. Drills with winged bases are included. Very few polished stone artifacts have been reported, only two celts, which seems curious if the celt really is such a pronounced Mississippi feature, one of which shows a slight flare at the bit. This last is, I believe, an interesting Middle Mississippi specialty, which culminates in the beautiful but inelegantly designated "spuds" which have occasionally turned up at Cahokia and related sites. Only one polished stone pipe, of the equal-armed type, has appeared. It is beginning to look as though the absence of stone pipes might almost be elevated to the dignity of a cultural determinant for the Middle Mississippi Phase. ⁽¹⁾ The list of stone artifacts may be completed by mentioning hammer stones, which after all can scarcely be determinant for any culture, and sandstone abraders, which may be rather better.

Bone: Bonework is varied and fairly abundant. The usual awls and "needles", and other sorts of piercing implements may be taken for granted. Only one beaming tool of the drawshave type

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(1) Exception would have to be noted in the case of large effigy pipes in stone, which are perhaps a Middle Mississippi specialty.

was encountered. Fishhooks of the slotted type of manufacture (cf. Fort Ancient) were found in sufficient number to indicate a knowledge of this important device. There were, however, no harpoons. Antler was used for various digging implements, handles, flaking tools, etc. but in more or less unmodified form. No small cylindrical "flakers" of the type already encountered in Fort Ancient and Aztlan were reported. A number of articles of personal adornment in bone and antler should be mentioned, long bone hairpins and bracelets, in one or two instances decorated by engraving in very simple designs, likewise several small rings made from short sections of antler.

Shell: Shell is apparently the funeral material par excellence. I have come to the conclusion that no deductions as to the importance or lack of importance of shell in a given manifestation can be risked unless there are a substantial number of burials on the sites in question. At Aztlan, shell material was practically non-existent, and I was led to make some suggestions about the possibility of shell not being so important in Middle Mississippi archaeology as I had formerly assumed. But at Aztlan, there was only one burial assignable to the Mississippi component at the site. Here, in the Spoon River Focus, where on certain sites burials are numerous, artifacts in shell abound. On the other hand on the village site (Fv664) where there were no burials, only two items of shell appear in the trait list, each of them represented by a single specimen. Practically all the information that follows is derived from two burial sites (Fol4 & Fo34).

The commonest domestic implement of shell is the so-called "hoe", made from a large *Unio*, perforated for hafting. A similar implement was common at Aztlan, though made from a slightly different species of shell (*Quadrula undulata*). Equally common at Fort Ancient, where it again was made from a species of *Unio* (*Unio plicatus*). It is not unlikely that in this exceedingly terrestrial utensil we have an important determinant for Mississippi culture, though perhaps when we get further south we shall find that its function is fulfilled by agricultural implements of chipped stone. Equally common perhaps is the occurrence of shell spoons, made from smaller river mussels, generally modified as to shape in order to provide a handle. These may be classified according to the extent and nature of the reworking, a refinement that need not concern us here. Although quite certainly articles of domestic use, their occurrence is most often in graves. In certain Middle Mississippi cultures, notably the Cumberland, the occurrence of a shell spoon in every mortuary vessel is almost a fixed rule. This was also the case at Madisonville. The shell spoon, particularly when found in mortuary pottery, is another likely candidate for membership in the select company of Mississippi determinants. One further object completes the short list of domestic utensils in shell, the shell cup or ladle, as it is sometimes called, made from the marine univalve *Busycon*, or related type, by removing part of the whorl and the columella. These, likewise, are found chiefly in graves, indeed it is quite possible that their use was restricted

entirely to ceremonial functions. They are not particularly common in any culture. Here their rarity is evidenced by a single occurrence in the great necropolis (Fo34), the Dickson mound, where more than 230 skeletons and accompanying artifacts lie exposed to the view of the vulgar curious. Their total absence in Fort Ancient has already been noted. We should not expect to find them at Aztlan, in any case, owing to the lack of burials. Whether this feature, again, is a Mississippi trait, remains to be seen.

There is a great variety of articles of personal adornment in both fresh-water and marine shells; disk, annular, barrel-shaped beads, olivella and marginella beads, pendants of cut mussel shells and small Busycon shells, grooved for suspension. There is nothing especially outstanding in this except their profusion of occurrence. Discoidals of shell, however, are missing, nor is there any decorative work on this material. Worthy of special notice perhaps are the rattles of mussel shells, perforated in two places for tying together, found at the ankle of a skeleton, and a pair of ear ornaments in the form of bear canines carved in the round. Altogether the shell materials from these sites bulk large and there is considerable variation, but all within very definite limitations. No examples of what has been, somewhat over-enthusiastically, called "art in shell", have so far been reported.

Copper: Copper comes close to not occurring at all in the Spoon River **Focus**. The only appearance of the metal is in the

form of thin rolled cylindrical beads. There is no evidence of copper overlay, such as was encountered at Aztlan. It is becoming increasingly evident that copper is not a strong factor in Mississippi archaeology, at any rate in such manifestations as we have already considered. It is rather significant that not one copper implement assignable to a Mississippi context has yet made its appearance in the course of the present inquiry.

Pottery: Problems of classification: Spoon River pottery is admirably described in Cole and Deuel's "Rediscovering Illinois", but in accordance with a method of classification differing from that which I shall use in dealing with material from other aspects of Middle Mississippi archaeology. Consequently I shall allow myself the liberty of recasting their material so that comparison with these other groups of pottery may be facilitated. They assign all Spoon River pottery to a single type, which they have provisionally designated "Type 7", breaking it down into sub-types based on various methods of surface treatment, viz: Dull Gray, Polished Ware, Cord-roughened and Painted. The last is further subdivided into Plain Red and Negative Painting in "black on white". While in complete sympathy with the idea of recognizing the generic homogeneity of all these sorts of pottery, since after all they can be shown to occur in a constant association, nevertheless I think their inclusion in a single type is inconsistent with the accepted meaning

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(1) Cole & Deuel, 1936, p. 49 et seq.

of "type" in the only place in North America where pottery classification has been established on a solid basis, namely, the Southwest. Naturally in the classification of eastern ceramics different criteria from those employed in the Southwest will undoubtedly be used. One does not expect that Southwestern methods be followed rigidly wherever they may lead. Nevertheless I think it is evident that, unless we are going to introduce a terrific confusion into the study of North American archaeology as a whole, we must make our basic unit of classification, which is the type, coincide as nearly as possible in equivalent content to the type as already understood in the Southwest. To be sure there is still a great deal of disagreement over the finer points of classification in the Southwest, but I think it is no exaggeration to state that practically all workers in the field agree in the main as to what constitutes a pottery type. The advantage of sticking to this meaning, so hardly won, would seem to be obvious. Some time or other archaeologists in the Southeast will have to make contact with workers in the Southwest, and when that time comes it will be highly desirable that they both speak the same language.

This is, perhaps, the appropriate moment to say something about Middle Mississippi pottery in general, so that the procedure of classification about to be followed may be clarified, and, I hope, justified. To begin with, it seems impracticable to set up a broad classificatory division into culinary and non-culinary wares, as in

the Southwest. Such a division may actually exist, but I am convinced that the overlapping is so great as to render it useless for classificatory purposes. The fundamental plain gray, or as I prefer to call it, drab ware, is predominantly an utility ware, with very few exceptions includes all cooking vessels, but unfortunately one finds innumerable examples of vessel forms which could not conceivably be used for cooking purposes in the same identical ware. From plain drab there is an insensible transition to polished drab, with darker shades predominating, until in some cases you get a true polished black. The vast majority of water bottles, effigy and eccentric forms come under this category. If we were so fortunate as to be always working with whole vessels, a division along these lines would no doubt be possible. In cases where the difference in ware was not apparent, shape would come to the rescue. Unfortunately we have to find a basis of division equally applicable to sherd material. Consequently it seems best to consider plain drab as the fundamental type, with polished drab as a variant. Other variations may find expression in such terms as "Plain Drab Incised", "Polished Drab Incised", etc.

When it comes to decorative variants involving the use of pigments, it seems to me that the time has come for setting up separate types. It is quite possible that the application of a red slip is no more significant per se, than surface alteration by polishing. It has, however, the great advantage of being something perfectly definite. A vessel is either red-slipped or it is not red-slipped, there can be no overlapping, or next to none. Therefore I shall treat redware as a distinct type, not without recognizing,

however, that its association with plain, and particularly polished, drab is apparently constant in Middle Mississippi ceramics.

Painted ware is not so readily classifiable. There are two general categories of decoration involving the use of pigments. In the first, a heavy slip-like pigment of mineral origin, indistinguishable from the slip used to produce the ordinary redware, is used decoratively in a very broad treatment. One could equally well describe it by saying that the vessel is only partially slipped in red, the slip being applied in such a manner as to produce a decorative pattern, necessarily broad in treatment considering the means employed. The vessel is polished subsequent to this decoration, resulting in a characteristic blurring of the edges of the pigmented elements. The alternating spaces between the broad bands or spirals, that make up a majority of the designs, is frequently overlaid with a white pigment, of the same slip-like consistency, and in some instances there is a further addition of a thin black pigment, more properly termed a stain perhaps. Thus we have three variants of this class of painted ware: Red on Buff, Red and White and Polychrome. These are the painted types that are at home in eastern Arkansas. I shall have a great deal more to say about them later. They do not enter into the picture in the Spoon River section apparently, unless Cole & Deuel have simply considered them as included under the general heading of redware.

Another class of pigmented ware proceeds by an entirely different

method to produce an entirely different result. Here is a type of decoration whose chief characteristic is that the design is produced by a negative process, in which the figure is in the body color of the vessel, the background consisting of a thin dark stain approximating to black, but generally faded well nigh to invisibility. In some cases, heavy pigments similar to those already described, generally red, or red and white, are applied secondarily to the light colored design areas, so that you have a negative process followed by a positive one. This is to my mind the most interesting type of pottery in the entire Mississippi area. It is impossible not to see in it an analogous technique to that employed in the so-called "lost color" ware of Central America. I shall have a great deal more to say about it in a later section. Here we are concerned merely with its classificatory position. To include it, along with redware, in a sub-type as Cole and Deuel have done, seems to me entirely inadequate. Whether the technique is actually "lost color", or simply negative painting by a method which merely approximates the result of the lost color process, in any case it is something entirely distinct, not only from ordinary redware, but equally from the commoner sort of painted ware that I have already described. It seems to me that there can be no question that it should rank as a separate type, and I shall treat it accordingly. It is to this type, evidently, that the "painted" ware of the Spoon River Focus belongs.

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(1) p. 334 et seq.

A recasting of the Spoon River material along the lines just suggested gives the following types:

- Drab Ware
 - Plain
 - Cord-roughened
 - Polished
- Red Ware
- Lost Color

Plain Drab: The bulk of the material, as always, comes under the Plain Drab category. The type is characterized by a rather coarse friable paste, shell tempered, gray color predominating, with smaller amounts of red and reddish brown. The term "drab" is used because it comes closer to covering the possible range of color variations. Shapes include the standard jar form, often with handles, shallow bowls, often with lugs or rim flanges, sometimes with effigy features, plates (elsewhere called the "soup-plate"), water bottles with straight necks (Fig. 17). Decoration is generally confined to the shoulders of jars and the inside of plate rims, predominantly by incision in a fine line technique, designs rudimentary, more often rectilinear with the triangular hachure as perhaps the most common motive.

Cord-roughened Drab: This variant differs apparently from the fundamental Plain Drab type only in the application of cord-texturing to a part of the vessel. The only shape reported is the standard

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(1) Color of the unpainted pottery of the Spoon River Focus is not described with reference to a color standard, but would, I am confident, fall easily within the various drabs of the Ridgeway color scale.

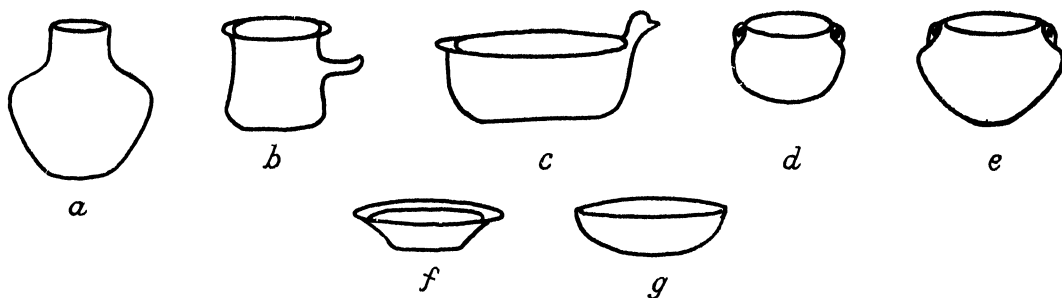


Fig. 17. Pottery shapes, Spoon River Focus.
(Cole & Deuel, 1937, Fig. 11)

jar form and the cord-marking is generally confined to the portions below the neck and shoulder. I have noted the presence of cord-marking in the Upper Mississippi Phase and its absence at Aztlan and will return to the possible chronological implications of its distribution later.

Polished Drab: This variant is relatively rare in Spoon River sites. Whether the lustrous surface often met with in this ware is the result of a slip, as Deuel seems to think, or whether it is simply the effect of polishing the surface under certain conditions, in other words what has been variously styled a "mechanical slip" or a "pseudo-slip", I am not prepared to say, since I have not seen the material. By analogy with similar material I would favor the second alternative. Generally speaking the paste in this variant is superior to that of the dull ware, is relatively thin-walled and finer in texture. Shell

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(1) Cole & Deuel, 1937, p. 51.

tempering predominates, but some of this ware exhibits no tempering material at all. Surface color is variable, ranging from dark or greenish gray to black. Deuel notes its tendency under certain conditions of exposure to deteriorate to a point of close similarity with the commoner Plain Drab ware. Shapes are said not to differ greatly from those of the plain ware already enumerated, except that two additional forms appear, an angular shouldered or carinated jar and the angular beaker or "beanpot", a shape that is particularly diagnostic of the Monks Mound Aspect, as we shall see (Fig. 17).

Redware and Lost Color: Both are extreme minority factors apparently. One understands now why Redware and Lost Color were grouped together; between them they scarcely produce enough examples to be worth mentioning. "The former has been noted on shallow bowls and beakers ("beanpots") only, the latter on water-bottles exclusively." (1) Actually only one water bottle of Lost Color type is specifically referred to, furthermore its actual association is (2) not unquestioned.

Miscellaneous objects of pottery: Under this heading there is surprisingly little to report. Two elbow pipes of the "equal-armed" type, one of them with anthropomorphic factor, a small number of pottery disks, one of which was found in interesting association

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(1) Op.cit., p. 53.

(2) Op.cit., footnote, p. 124.

with a pottery trowel, or anvil, the convex surface of the anvil
resting on the slightly larger concave surface of the disk. ⁽¹⁾ Whether
this association indicates any functional connection or was simply
fortuitous is anybody's guess. Miniature vessels were, of course,
present. One is beginning to surmise that their presence is not
culturally indicative except in a most general sense.

Conclusion: In reviewing the culture of the Spoon River Focus
as a whole, one cannot help putting a rather low estimate upon it,
from the point of view of cultural advancement. The general lack
of conspicuous mounds and earthworks is not compensated by any in-
creased richness of cultural material. In turning from it to the
closely related sites in the Cahokia region, we may permit ourselves
to hope for more interesting developments.

3. The Cahokia Complex

From this point on we lose contact altogether with the McKern
Classification. It will be noted in the tentative classification
(Fig. 2) that although this entire northernmost aspect of Middle
Mississippi takes its name from the great mound at Cahokia, nothing
is said about the actual classificatory position of Cahokia itself.
As we proceed further down the River and off into the Tennessee-Cum-
berland region, we shall be dealing with material that has not, so

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(1) Cole & Deuel, Fig. 25: 24, p. 127.

far as I know, been subjected to any classificatory analysis whatever. A slightly different procedure will therefore be required. Instead of merely examining the culture of a group of sites, already recognized as forming a cultural unit, we shall be under the necessity of attempting to form such units before any summarization of their culture is possible. This simply means that we shall have to examine a great many sites, and in doing so will be obliged to rely on information very uneven in quality. This is my excuse for so much of the tedious exposition that is to follow.

One further explanation and we may proceed. The tentative grouping which I shall attempt to establish for the remainder of the Middle Mississippi Phase is in no sense to be regarded as an effort toward classification in the McKern sense. For such an effort a great deal more material from actual site excavation would be required. The grouping here is merely an arbitrary expedient to facilitate description in order that in the end a full-length picture of Mississippi culture, more especially Middle Mississippi culture, may be obtained. Without some sort of grouping any such result would be out of the question. If I continue to use the term "aspect", it is simply to be consistent with what has gone before. If I were writing for publication I should certainly employ another term. Certainly I am not competent, and I doubt if any one else is, at the present time, to set up any "aspects" in the true McKern sense in this portion of the Mississippi Valley.

On the east bank of the Mississippi, extending from the mouth

of the Missouri southward for some 50 or 60 miles is a rich alluvial plain eight or ten miles in breadth dubbed somewhat inelegantly the "American Bottom". Scattered over its surface are shallow lakes and ponds, vestiges of former meanders of the great river. It would be difficult to find a more productive area. It is not surprising therefore to find here evidences of a relatively dense aboriginal settlement. Approximately in the center of this plain lies the great site of Cahokia, and its related mound groups, dominated by the great Monks Mound itself, the largest aboriginal structure north of Mexico. Here, to judge from the magnitude and extent of purely physical remains, was perhaps the most important center of aboriginal occupation in the whole Middle Mississippi section, if not the entire Mississippi valley. So favorable is the situation from the geographic standpoint that, if the remains were not here, we should almost be obliged to postulate them. Just below the confluence of the Illinois, Mississippi and Missouri, and not far above that of the Ohio with its affluents the Tennessee and Cumberland, the position is one that might well have dominated the trade of the whole continental interior. Unfortunately we have to be content with "might have"; we have no evidence that such was actually the case. Our lack of knowledge of Cahokia is almost as monumental as the earthworks themselves!

The archaeological history of Cahokia begins in 1921 with Dr. Moorehead's explorations for the University of Illinois. Previous to that time there had been some desultory digging, undocumented

for the most part, and a great deal of pothunting. Owing to its nearness to St. Louis there was a good deal of disinterested archaeology by railroad and highway contractors. The literature of this period is considerable and contains some interesting information, if one has the patience to read it with the critical discrimination that this sort of literature requires. Dr. Moorehead worked here four seasons, 1922, 1923, 1924 and 1927, and published the results (1) in several issues of the University of Illinois Bulletin. Subsequently work was carried on by the University under the direction of Dr. Arthur Kelly. Unfortunately Dr. Kelly's work has not been published, so we are forced to rely on the summary reports of the excavation up to and including those of 1927, with the doubtful addition of whatever information can be gleaned from the voluminous literature of the earlier period.

This material unfortunately gives us a very imperfect picture of the archaeological situation at Cahokia. This may not be altogether due to lack of information, however. One has the distinct impression that, for a site of such magnitude and complexity, Cahokia is singularly barren of material. It would be difficult, I think, to find anywhere in the eastern United States an instance where so much work has yielded so little material return. This at any rate is certainly true of the mounds. Village site excavation I believe was more productive, but it is this phase of the work that remains for the most part unpublished.

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(1) Univ. Ill. Bull., vol. XIX, no. 35 (1922); vol. XXI, no. 6 (1923); vol. XXVI, no. 4 (1928). The two earlier publications are reprinted in the third, so all references hereinafter will be to the publication of 1928.

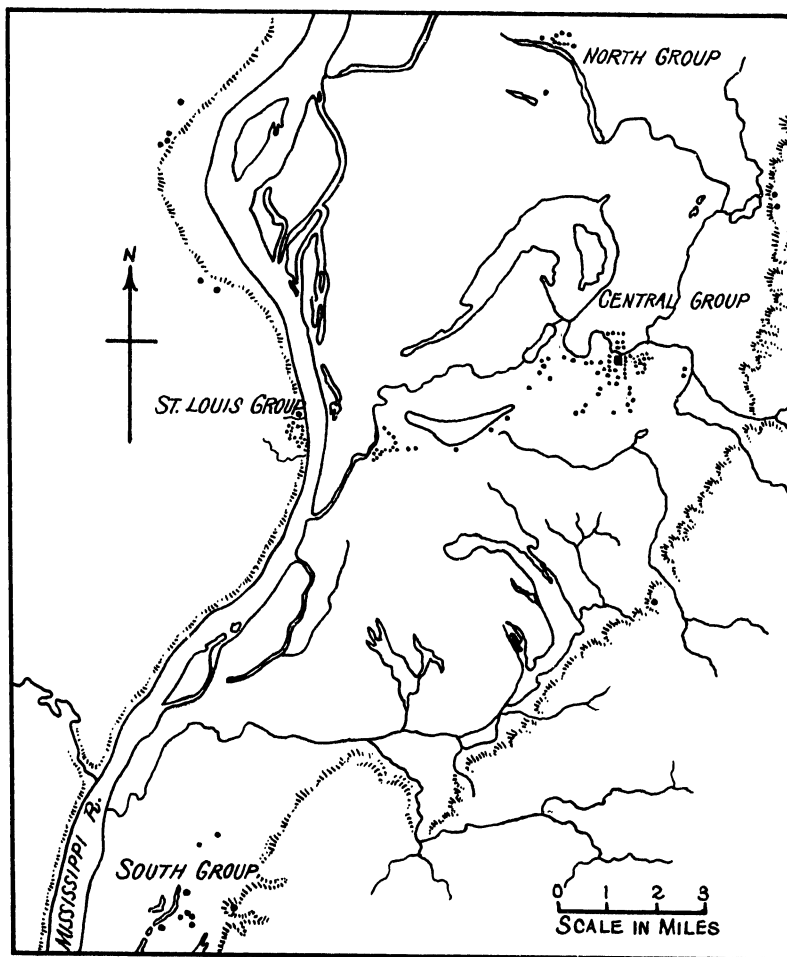


Fig. 18. The Cahokia Mound Groups.
(Bushnell, 1922, Fig. 99)

Before attempting a description of the Central Cahokia or Monks Mound group, where all of the archaeology has been done, it will be necessary to consider several outlying groups of mounds, which, it is generally agreed, are tied up in the same complex. Monks Mound and its satellites seem to form a nucleus for at least three other distinct groups. The geographical relationship may be seen in Fig. 18.

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(1) Bushnell, 1922, Fig. 99.

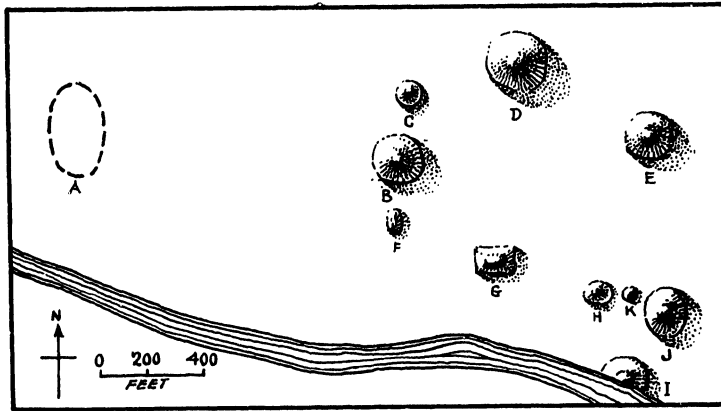


Fig. 19. The North Group, Cahokia Complex.
(Bushnell, 1904, Fig. 7)

The North Group: Using Bushnell's designations, we may begin by considering the North Group, situated on the north shore of Long Lake, about 7 or 8 miles north of Cahokia. According to Bushnell's survey of 1900, there were at that time 11 mounds arranged as may be seen in Fig. 19. The actual size and shape of the mounds could not be determined owing to long continued cultivation. Only mound G appeared to have been rectangular. It must be noted, however, that the effect of continuous ploughing is to render a small rectangular mound indistinguishable from a circular or oval one. It is quite clear in any case that the mounds were arranged about a plaza, thus giving a characteristic Middle and Lower Mississippi type of assemblage. The indication of some attention to orientation further emphasizes the formality of the arrangement.

Lying immediately to the west of this group is what remains of Mound A, dotted on the map, which boasts the rather unusual distinction of having three railroads passing through it. This is probably the mound whose demolition was witnessed by Dr. Henry Howland in 1876, by whom a number of very interesting copper artifacts were secured. Howland's admirable description of these objects deserves to be quoted at some length, owing to the fact that Dr. Moorehead found no copper whatsoever in all the digging at Cahokia. If the connection between this group and Cahokia be admitted, of which more anon, then this is practically our only published information in respect to the use of copper by the
(1)
Cahokia people.

Mound A is shown on Bushnell's map as elliptical, and described
(2)
by Moorehead as 260 ft. long, 27 ft. high, the width not given. Howland describes the mound whose destruction he watched as conical, 120 ft. in diameter and 27 ft. high. There is an obvious discrepancy here, and it is possible that the pitiful remnant transfixed by three railroads is not the same as Dr. Howland's. (There were three of these large conical mounds west of the main group in Howland's time, so there is a possibility at least of error.) In any case there can be no question about Dr. Howland's account of what he saw and the artifacts he secured.

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(1) Howland, 1877. A recent publication (Titterington 1938) gives some additional information concerning copper at Cahokia.

(2) Moorehead, 1928, p. 60.

When he arrived, attracted by a newspaper article, the work of demolition was already far advanced. At some four or five feet above the base of the mound, the workmen had come upon a stratum of human bones, about eight inches thick, six to eight feet wide, extending apparently clear across the mound (east to west) as though a large number of bodies had been deposited in a trench. On this level were found, besides a large quantity of matting woven of coarse cane-like material, a number of copper objects, of which Dr. Howland secured the following:

Three small turtle shells of beaten copper, their shape remarkably true and perfect, the sutural lines faithfully reproduced. These articles were wrapped in a way suggestive of the care with which mummies are prepared: first, an inner covering of woven cloth of vegetable fibre; this was covered in turn with a softer finer fabric formed of twisted strands of animal hair, laid or matted closely together but apparently not woven; over this a dark colored layer of skin; finally as an outer covering a membranous material, possibly the intestines or bladder of some animal.

Next in point of interest were two deer mandibles, in which the anterior portions and the teeth were covered with beaten copper. The rami were perforated presumably for suspension. The same curious wrappings were observed here also, but in less good condition.

Portions of bone ear-plugs plated with copper.

A wooden rod, 8 3/4" long plated with copper.

Eight thin plates of wood, 3" long, 2 1/2" wide, rounded at one end, pointed at the other. Evidence that they were also copper covered.

Five flat copper rods, 3 1/8" long, pointed at one end, fastened together picketwise with plates of the same material.

One double pointed spear head, "precisely similar to those made by the American Indians" (It is necessary to recall that this is 1876!).

A bundle of eight copper rods, 14 to 18" long, wrapped in matting.

Bone needles and awls.

Beads carved from the culumella of Busycon.

Necklace of flat crescent shaped ornaments of shell, 3" long, perforated at one end.

A further reference to this demolition of 1876 is given by
(1)
P. F. Titterington. In describing a certain rare type of flint
"spud" which may be a Cahokia diagnostic, he says that a cache of
these objects was found in the course of destruction of this mound,
only one of which has survived and is now in the collection of the
Missouri Historical Society.

Between 1877 and 1923, at which time Dr. Moorehead visited
these mounds -- called by him the Mitchell Mounds -- in connection
with the Cahokia survey, the only reference in the literature is
that of Bushnell, from which the map, Fig. 19, is taken. Bushnell
did no excavation, but contented himself with a brief description
of the condition of the mounds at the time of his visit. Moore-
head approached these mounds with the definite purpose of ascertain-
ing whether or not they were built by the Cahokia people. Mound C
was first attacked but with disappointing results; next Mound A, or
what was left of it, which yielded two burials in poor condition
and a half dozen triangular points; next Mound G was trenched with
the same depressing result, a few sherds, some ashes and charcoal,
no more. Mounds D, J and E were then tested with augurs and pits.
In one of the pits in Mound E was found a flint spade about 8 inches
long; otherwise the results were negligible. Moorehead's conclusion,
based on the potsherds -- but judging from his account there must
have been few of them -- was that the Mitchell Mounds "are a part of
(2)
Cahokia culture."

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(1) Titterington, 1936, p. 321.

(2) Moorehead, 1928, p. 62.

While one cannot accept Dr. Moorehead's verdict without question, in view of the sketchy nature of the evidence, one feels nevertheless that the balance of probabilities are in its favor. If it is too much to say that this northern group is an actual part of the "Cahokia Complex", it is at any rate closely related to it. Going back for a moment to the McKern terminology, the site unquestionably belongs to the Monks Mound aspect. The point of this tedious discussion is, of course, that it permits us to take into account Howland's evidence concerning the use of copper. It takes on added importance when we recall the very slender evidences of copper so far encountered in this aspect.

The St. Louis Group: Next to be described, still following Bushnell, is the West, or better, the St. Louis Group, a plan of (1) which is shown in Fig. 20. This plan, as reproduced by Bushnell, was redrawn from a survey made by Major Long's party in 1819. It probably comes very near showing the mounds in their original condition, and furnishes an excellent example of assemblage and orientation. Highly reminiscent of the North Group, already described, is the enclosure of smaller mounds, with a large isolated oval shaped mound nearby, and it is from this mound, just as in the other case, that our only information comes. When the smaller mounds were destroyed is impossible to say, but the large mound was leveled in

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(1) Bushnell, 1904, Fig. 4.

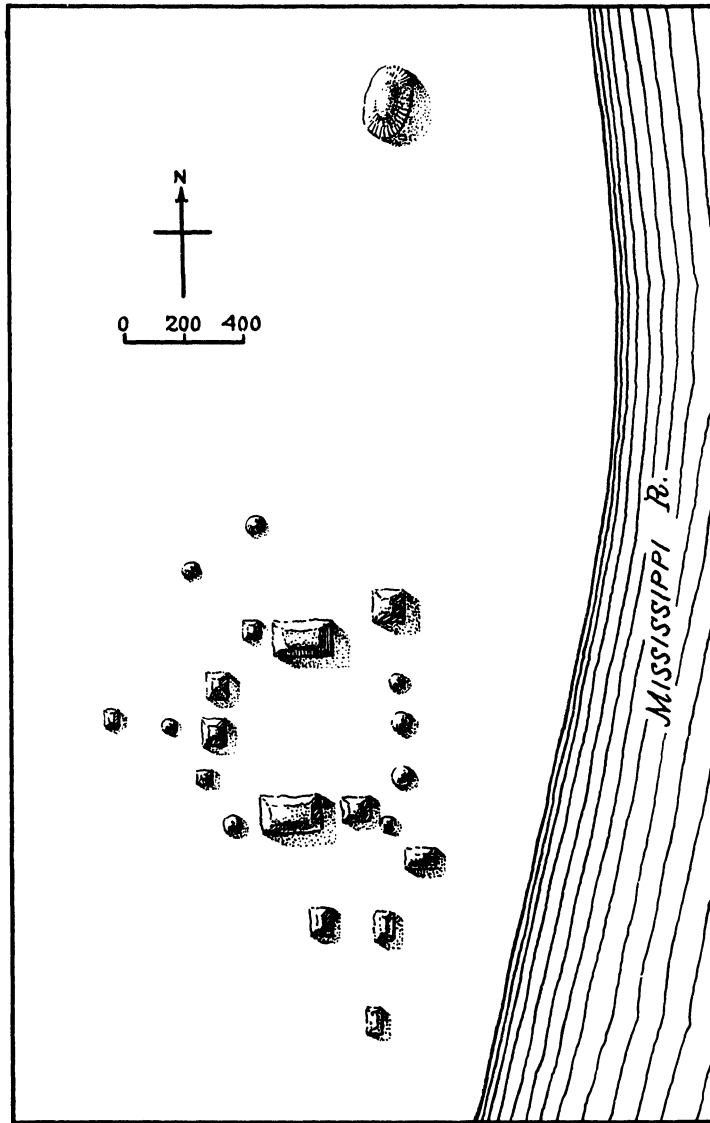


Fig. 20. The St. Louis Group, Cahokia Complex.
(Bushnell, 1904, Fig. 4)

1869 and we are again fortunate in having the account of an
(1)
eyewitness.

Conant's account opens impressively by stating that "of
all sepulchral mounds thus far examined this was the king."

.....

(1) Conant, 1879.

Its dimensions, quoted from an earlier writer, were 150 ft. long by 30 ft. high. At the northern end about three feet below the surface were found two burials and with them the columellae of ocean shells, "ivory" (by which I suppose is meant bone) beads and ear spools, and two "curious articles of copper", about 3 inches long, half as wide, in shape something like a flatiron, much corroded but still bearing traces of some sort of engraved decoration. "From the center of the finished upper side an arm projected at right angles, about $5/8$ inch in continuous width and $2/8$ inch in thickness at its juncture, which tapered to a thin edge. "Impossible to make out just what sort of an object this describes, but the interesting feature is that there were unmistakable traces of "engraving" on it. It seems very probable that we have here an occurrence of repoussé technique, and if it could be safely associated with the Cahokia complex, we would have another important diagnostic. Of course the burials could have been intrusive. The other artifacts described, however, fit perfectly into the Cahokia picture.

The real feature of this big St. Louis mound was the central burial chamber with sloping clay walls and caved-in timber roof, of uncertain dimensions, 8 to 10 ft. wide, about 8 ft. high and upwards of 70 ft. long. In it was found a large number of skeletons in the extended position (somewhere between 20 and 30)

(1)

with beads and marine shells in prodigious numbers.

I can find no specific evidence or even opinion linking the St. Louis mounds with Cahokia. However, the fact that their external characteristics agree, coupled with the close proximity of the two groups, amounts to a strong presumption in favor of their connection. Fowke makes an interesting suggestion, that St. Louis and Cahokia were formerly on the Missouri side of the river, the latter site being situated on a large horseshoe bend, which was subsequently eliminated by a "cut-off"⁽²⁾. To which may be added the very striking parallels in arrangement and construction between St. Louis and the North Group at Mitchell Station. Nor is there anything about the artifacts, so far as our meagre accounts describe them, to raise any serious difficulty. So far, at least, there seems to be no good reason for questioning the generally accepted opinion that these three sites form a fairly homogeneous cultural manifestation.

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(1) The only other reference I can find to artifacts from this mound is by T. T. Richards in 1871 (The American Naturalist, vol. IV, Salem, 1871, p. 62). He describes the great trench grave in much the same terms as Conant, but says that the skeletons were in a sitting attitude (by which it may be presumed he meant flexed). He refers to articles in his possession as follows: perforated shell disk, oblong beads, 2 copper ornaments (from behind the ears of a skull) shaped like the bowl of a large tablespoon, "from the convex side of which extends a long sharp horn", two large conch shells, etc.

(2) Fowke, 1912, p. 92.

The South Group: One more outlying group remains to be considered, and about this we have even scantier information, if such a thing were possible. This is the South Group situated on the lower portion of the American Bottom across the river from Jefferson Barracks, about 10 miles down river from St. Louis. Previous to Bushnell's description of 1921, I can find no reference to these mounds whatsoever. At the time of his visit they were much diminished from their original size and several had disappeared altogether. According to Bushnell the group must have originally formed an enclosure similar to that of St. Louis and Mitchell Station, and (an additional feature of resemblance) several large and prominent detached mounds of conical shape. The mounds abutting on the plaza, of which only five now remain, are too far gone to determine their shape with any degree of accuracy. At least one of them was rectangular and must have been very large, and was oriented according to the cardinal directions. Bushnell's final observation is that this group must have been very similar to the St. Louis and the North Group, must have been formerly quite as imposing as these, and in every respect as important to its builders.

Cahokia: The central Cahokia group sprawls out over the rich bottom lands across the river from St. Louis along the banks of Cahokia creek. The exact number of mounds has never been determined. Moorehead numbers 85 on his map (Fig. 21). Undoubtedly many others have been entirely eliminated by the plough, or by the aggradation

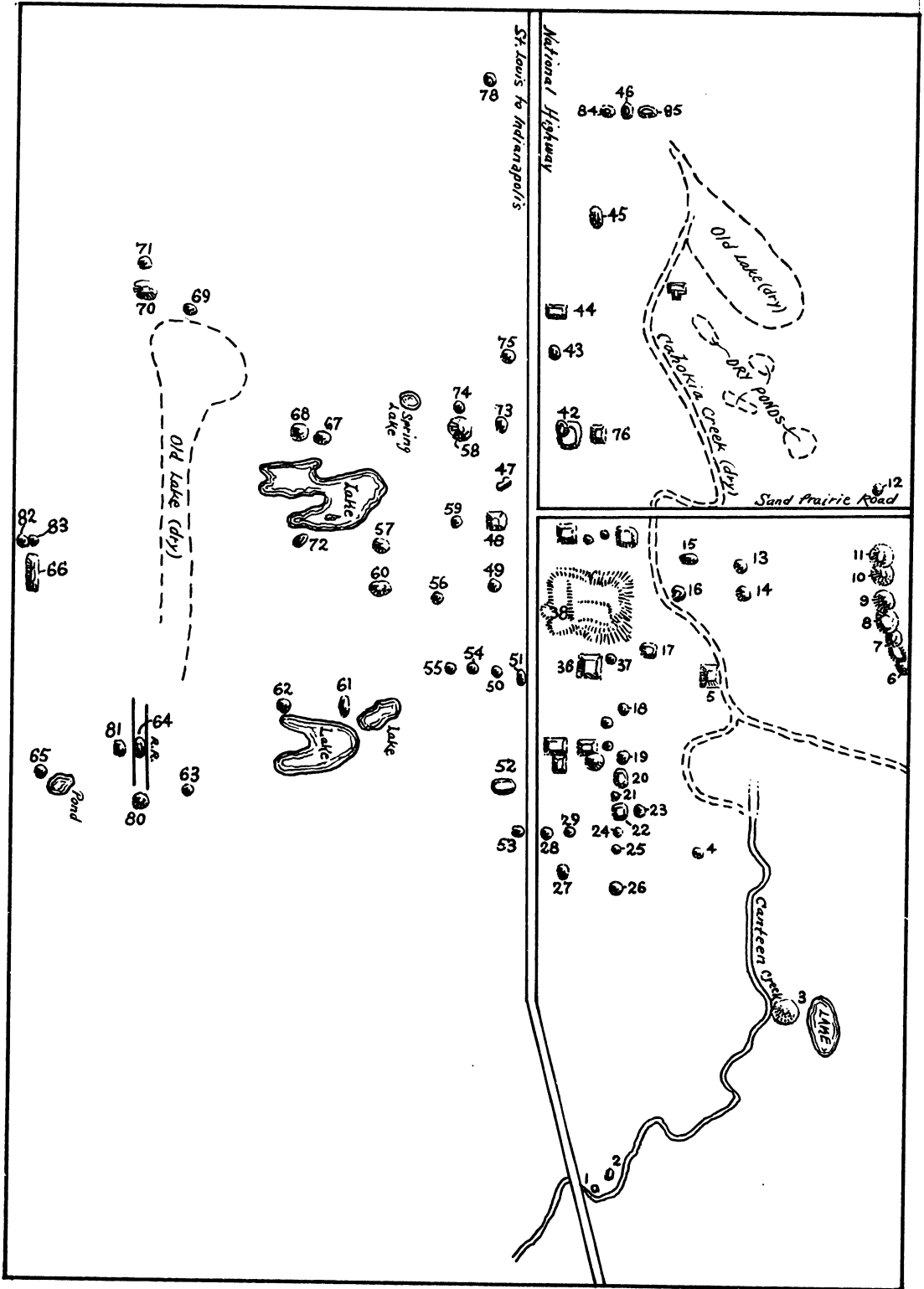


Fig. 21. The central Cahokia group (Redrawn from Moorehead, 1928, facing p. 10, a reproduction of map made by J.J.R. Patrick about 1880).

of the Mississippi. The mounds vary in size from Monks Mound which is the veritable grandfather of all mounds, to low conical elevations that are barely perceptible above the surface of the plain. In general the larger mounds are rectangular, though just as in the outlying groups already discussed, there are a number of sizable conical mounds. The divergence in size between conical and rectangular mounds may be more apparent than real, first on account of the overwhelming bulk of Monks Mound itself, second owing to the fact that smaller rectangular mounds lose their contours in cultivation and get to be classed as conical mounds.

The group as a whole, from the point of view of assemblage, is difficult to characterize in an off-hand manner. There seems to have been no comprehensive plan. The very definite tendency to group mounds about an open space or plaza, seen in the three outlying sites, is not apparent here. To be sure, just east of the great mound is an arrangement of smaller mounds that suggests a plaza, but if so, it is entirely out of keeping with the immense scale of the site as a whole. On the other hand, orientation in accordance with the cardinal directions is strictly adhered to. This is perhaps not the place to discuss any theoretical considerations in regard to orientation, but I can scarcely refrain from commenting on the futility of precise astronomical observations for the purpose of determining whether these structures were aligned on Polaris or some other star that may in a remote time have represented true north. Or the hope that by comparing the

declination from true north of two structures an indication of their relative age can be obtained. It has struck me that, not only here but elsewhere, wherever the question of primitive man's astronomical knowledge comes into play, we obscure the main fact with technicalities. The main fact at Cahokia is that all of the rectangular mounds are oriented within some five and a half degrees of true north, some on one side, some on the other, a total divergence of 11 degrees. It cannot possibly have been accidental. They were deliberately shooting at true north, (or some other direction, why does it always have to be north?) and they came about as close to hitting it as we might expect. The fact that they hit or missed is not especially important. The thing that is significant is that astronomical ideas of some sort were dominant in the planning of their structures. The implications of this fact, from the point of view of southern contacts seem to me to be inescapable.

Barrett, in his Aztlan report, sees some reason for believing that the site may have been originally enclosed by a rampart with bastions similar to that of Aztlan. He quotes an early account which refers to "a great number of small elevations of earth. at regular distances from each other, and which appeared to observe some order", suggests that they may have been remains of bastions since destroyed by cultivation. By analogy with sites

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(1) Barrett, 1933, p. 59.

in southeast Missouri and the Cumberland Valley (in cultures closely associated with Monks Mound as we shall see) it seems far more likely that the "small elevations" referred to house sites. In any case this is no sort of evidence upon which to attempt to postulate a defensive factor, especially in view of the complete lack of such evidence for any of the outlying groups of the Cahokia Complex.

In this connection a suggestion put forward by Thruston in his admirable book on the Cumberland Valley may be of interest. He notes the occurrence of strongly fortified sites to the west, south and east of Nashville, but none in the immediate vicinity of Nashville itself, and none to the northeast, following along down the Cumberland and Ohio to the Mississippi. Here were peoples closely related (1) so that no fortifications were necessary. It is possible that the same conditions of peaceful intercourse obtained as far north as Cahokia. Certain it is at any rate that this entire intervening stretch of river valleys was inhabited by peoples closely related culturally if not politically. What I am getting at is this: that probably Barrett is right, that the Cahokia people did possess the trait of building fortifications of the Aztlan type, and would have done so if they had felt the need of them. A tricky sort of trait, its absence may be more significant of relationship than its presence.

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(1) Thruston, 1897, p. 4.

Monks Mound, so called because a group of Trappists are supposed to have established themselves on its summit for a brief period early in the 19th century (1) has been the subject of so much enthusiastic literature, that a description need not detain us here. The question as to what extent it is artificial, however, is of some importance. The controversy over this point has been long-standing and is by no means settled. Fowke, Thomas and others have argued with some show of plausibility that the accumulation of so much earth (some 22,000,000 cu. ft.) is by no means an impossible feat for an Indian tribe of ordinary dimensions. By computing the number of basket-loads per Indian per day, not without making generous allowance for an assumed disinclination toward such labor, Fowke concluded that ten years would suffice for the job. Such calculations, quite in the Mound-builder "slumping" tendencies of the day, are not particularly convincing. Furthermore the fact that such a heaping up of earth could have been managed by no means proves that it was. In going over the literature, I was much surprised to learn that Monks Mound has been tested by borings on the summit and various points on the slope, but at no point to a greater depth than 25½ feet. The

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(1) Local antiquarians, however, seem to be in agreement that the Trappist establishment was located on one of the smaller mounds.

(2) Crook, 1922, p. 5.
Moorehead, 1928, p. 21.

cores secured showed unquestionable artificial construction, but it must be admitted that the real heart of the mound has not been touched. Other smaller, but still very large, mounds of the group have been thoroughly excavated to base line and below, and in no case is there the slightest question of their artificial origin. So far as the evidence goes, then, Monks Mound is artificial. The archaeological and, I believe, the geological probabilities favor the supposition. On the other hand the possibility that buried within its vast bulk is an erosional remnant that formed a nucleus for mound construction has not been entirely eliminated.

Except for an unsuccessful attempt to reach the center of the mound by tunneling "many years ago" Monks Mound has, through sheer bulk, thus far escaped excavation. Moorehead's excavations of many of the smaller mounds of the group merit description in detail, but we shall have to be content with a bald summary. Numbers refer to Moorehead's map, Fig. 21.

No. 11. A large conical mound, estimated to have been originally about 400 ft. in diameter and not less than 50 ft. high. Trenched at base line almost to center. The mound was evenly stratified horizontally. There were floors at various depths, one of which, 18 feet above base level, contained a basin of hard-burned clay. No burials were encountered.

No. 30. Truncated pyramid, 180 feet square, about 5 feet high. Trenched and tested with pits. Nothing found but midden material including lumps of burnt clay having impressions of reeds and rushes (briquettes?).

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(1) Moorehead, 1928, p. 19.

- No. 24. "A rather small mound". Extended burial at 4 feet, flint knives and potsherds at the head. Trench 60 by 20 feet was run through the structure.
- No. 25. About 7 feet in height (no other dimensions given). Trenched and tested with pits. Found no burials but discovered some scales of copper at the base line.
- No. 56. Jesse Ramey Mound. Not clear whether pyramidal or "oblong". Base diameter about 300 feet, about 20 feet high. Trench 10 feet deep nearly to center, test pits and post-augers holes sunk in bottom of trench. A few scales of copper and some fragments of highly finished pottery. Recommended for further exploration. (!)
- No. 64. Mound considerably damaged in railroad construction. Tested with pits. No objects recovered.
- No. 39. Sawmill Mound. Truncated pyramid, 240 feet square, not more than 7 or 8 feet high. Burials found in a line "along the southern slope" at depth of 30 inches. Trench on east side found no burials. Pit sunk in center also without result.
- Nos. 19 Three low mounds very close together, edges overlapping.
20 & 21. Number of burials with pottery. Skeletons not measurable.
- No. 80. No dimensions given. Trench 50 by 6 feet. Large amount of "village site material", no burials.
- No. 33. James Ramey Mound. Originally conical with a height of somewhere around 38 feet. Diameter not given. This mound was regarded as important and a thorough investigation was undertaken. A large trench about 55 ft. in width was run through the center down to base line. At the approximate center of the mound at base level were found two circles, one formed by a trench, the other by postholes, and a number of baked clay fireplaces or "altars". In addition to the floor represented by these rings was at least one other floor at a higher level. The relationships of these floors is not clearly brought out. It seems quite likely that this was a stratified mound, in other words, its structure seems not to have been essentially different from that of the typical pyramidal mounds of the region. Dr. Moorehead failed to bring out this point, due I think to a misconception of the nature of the two circles at the base of the mound. These he regarded as "ceremonial", the fireplaces associated with them as "altars". In short he envisaged a situation comparable to the familiar Hopewell arrangement. What he had rather, to judge from his account, was the sort of stratification by superposition of living or ceremonial surfaces, that is characteristic of the majority of mounds in the Southeast.

- No. 86. The Jondro Mound. A mile and a half west of Monks Mound. Circular, 140 by 130 feet in diameter, 4 to 6 feet high. Mound was pretty thoroughly trenched and a considerable number of burials in very poor condition found. With one exception all were without artifacts.
- Sam Chucallo Mound; (not on map). Whether conical or rectangular not stated, apparently difficult to ascertain. Dimensions about 150 by 120 feet and some 10 feet high. Mound was trenched and a number of burials without artifacts found. Burials were partly "bunched", partly extended.
- No. 14. Low conical mound north of Cahokia Creek. Tested with pits and auger without results.
- No. 79. Rectangular mound, 130 feet long, width not given, 10 feet high, with a long low platform or "apron" extending 150 feet on the east side. "A trench was extended a distance of about 30 feet in the mound down to within a few feet of the base line, then the post augers were brought into service." (Italics are mine.) "Practically nothing was found."
- No. 61. Mrs. Tippetts' Mound. A large oval mound. Dimensions not given. Very promising, but pits and augers yielded nothing but disappointment.
- No. 66. The Harding Mound. A long oval mound, 520 feet long and 30 feet high (about 220 feet wide) very symmetrical. There were a great number of burials in very poor condition, apparently mostly in the form of bundle or "bunched" burials. At one point there was a continuous stratum of human remains. Altogether an estimated 150 burials, almost entirely unaccompanied by artifacts. Most curious circumstance was that all the burials were in the upper levels of the mound.
- No. 65. Almost circular in plan, diameters 230 and 200 feet. But halfway up the slope the outline became "noticeably rectangular". In any case it was truncated. Height 20 feet. Forty-one test pits were put down but no remains of any kind were found.

The above list gives some idea of the character and extent of Moorehead's work at Cahokia. In addition to the mound excavations listed, he carried on from time to time extensive village site

explorations. (The entire area left vacant by the mounds appears to have been one great village site.) There were occasional burials, but nothing describable as a cemetery came to light. No information on house types or other forms of construction was secured. One gets an impression of barrenness from reading the reports of this work. Whether due to something inherent in the methods of excavation (the rather heavy dependence on test pits and auger holes) or resulting from the manner in which the excavations are described, one distinctly feels that for such an outlay of work, the yield was unaccountably small. This is said partly in self-defence, because the cultural inventory that I shall endeavor to set forth below is very largely dependent on Moorehead's work. I am only too well aware that more recent excavation has been done at Cahokia and its results are shortly to be published. I wish I might make use of them!

As I have already suggested, there is very little (from published sources) to add to the above. One or two half-paragraphs on the work subsequently done by the University of Illinois have appeared in "Notes-and-Comments" sections of various publications. These in all cases have to do with the excavation of the Powell mound. The information vouchsafed by these second-hand notices (1) is extremely sketchy, nevertheless cannot be neglected.

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(1) El Palacio, vol. 30, p. 205.

Since the above was written a paper by P. F. Titterington has appeared (Titterington, 1938) containing some description of the 1931 excavations.

I have made little use of McAdams's "Antiquities of Cahokia" (1883) because of certain peculiarities of the material presented. McAdams found a burial place "at the foot of the Cahokia temple",

The Powell mound is the subject of a brief reference by J. L. B. Taylor in the Moorehead report. Its dimensions given as 310 feet long, 170 feet wide and 40 feet high. Although he does not say so, I think it is safe to infer from the dimensions and from the photograph reproduced by Moorehead that it is (or was) a rectangular truncated pyramidal structure. Though only third largest in size of the Cahokia mounds, being exceeded by Monks Mound and No. 66, it is regarded by Taylor by reason of its regular outline as the most imposing member of the group. It is, therefore, rather surprising to be told that it does not appear, or at any rate cannot be identified by number, on the map, used by Moorehead and reproduced here.

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from which about a hundred pottery vessels were recovered. "It is surprising to observe how these vases and long-necked water bottles resembled in appearance and shape the ancient vessels of the Nile, but what is more strange is that several of these vessels have painted on them in bright red pigment some of the same symbols as used by the sun-worshippers in Egypt, and very similar symbols on similar vessels taken by Schliemann from buried Mycenae and Troy (see illustrations)". It is no less surprising to see how closely these painted water bottles illustrated by McAdams resemble pottery from southeast Missouri figured by Evers. Indeed on closer examination one finds that they are actually the same illustrations! Such thrift is not commendable in scientific publications.

(1) Moorehead, 1928, p. 84.

(2) Ibid., Pl. XXXIX.

Late in 1930 the destruction of this mound by steam shovel began and proceeded for 16 days before the University of Illinois succeeded in converting it into an archaeological excavation of sorts, under the able direction of Arthur R. Kelly. Kelly's report, unfortunately, has not yet appeared. Titterington, in a recent publication, furnishes some very interesting information that came to light during the period before the University came onto the scene. (1) "Soon after the contractor started, a black humus line, approximately 4 inches thick, was seen near the base. It gradually rose to about the middle of the mound and kept this level for the greater part of the distance of the long axis, when it began to descend again toward the base. It was also seen to slope toward the base at the sides, giving the impression of an original flat-topped mound which had been covered over by a secondary mound." (2) Upon this humus line, which clearly marked the separation between a primary and secondary mantle, each approximately 20 feet in height, two large group burials were encountered, apparently of rectangular shape, one of them as much as 30 feet across. "Through the courtesy of the contractor, several of us had the opportunity of studying rather closely the vertical face of the mound through this group burial. He put us into the scoop of the shovel and raised us up to the level of the burial. Our impression of what we saw was that cedar sticks, about 1 inch in diameter, had been laid down parallel

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(1) Titterington, 1938.

(2) Ibid., p. 14.

to each other about 3 feet apart on the top of the humus line. These had been covered over with layers of bark and the burials placed on top of the bark. The burials were covered by from 1 to 5 layers of Marginella shells. These shells were in such definite rows, and covered areas sufficient in size, to suggest that they had been attached to garments or robes. Over the top layer of shells was a layer of bark, and above this was the secondary mound." Additional strata seem to have been present. A brief notice of Kelly's work in El Palacio refers to "at least six strata". From this one would be led to infer that the mound presented the typical features of a stratified domiciliary mound such as are commonly found in various Middle Mississippi cultures. Titterington's information, on the other hand, would indicate that it was primarily a burial mound. Without Kelly's report we are left in uncertainty on this important point.

An earlier publication by Titterington remains to be mentioned, description of a large collection of surface material from that portion of the Cahokia village site lying southeast of Monks Mound. It is unfortunate that his report deals primarily with stone artifacts. In the state of our present knowledge of stone techniques

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(1) Furthermore these shells were perforated as though for attachment (p. 14).

(2) El Palacio, vol. 30, p. 205.

(3) Titterington, 1933. The more recent paper already referred to (1938) gives considerable additional material, particularly on the side of pottery.

in the eastern United States, this sort of information is perhaps the least useful of any. However, Dr. Titterington furnishes some very helpful notes on other types of material including pottery.

So much for the materials out of which some sort of summarization of Cahokia culture must be attempted. A few other minor sources of information will be brought in as occasion offers. I will not waste further space by elaborating on the apologetic remarks already given. A full-length portrait is patently out of the question. What follows is nothing more than a sketch, but a sketch which is nonetheless essential for a further penetration of the Middle Mississippi area.

Culture of the Cahokia Complex: Mounds: Mounds vary enormously in size and shape. The truncated pyramidal type seems on the whole to be more characteristic. This is certainly true in the sense that it tends to distinguish Cahokia from other mound-building culture manifestations of the Upper Mississippi Valley. There is likewise a tendency for mounds, whether pyramidal or conical, to be stratified. The stratification seems to be the result of the superposition of occupational or ceremonial floors. This has, of course, a decided southern flavor, but we must be careful not to force the evidence, which is not of the best. Burials occur in mounds but rarely, and for the most part directly on the above-noted floors. In more than one case the remains of some sort of wooden structure in connection with the burials is noted, but here again the nature of our evidence precludes any definite statement. The case of the "Big Mound" in

St. Louis at the base of which was a long trench-like sepulchre roofed with logs will be recalled. In general, however, the Cahokia mounds would seem not to have been burial mounds, but rather the sort of thing that is somewhat imprecisely covered by the term "domiciliary", that is, they served at various stages of their construction, or solely upon final completion, as elevated platforms upon which perishable structures were erected. It must be admitted, however, that this definition, however loosely construed, does not explain all of the mounds by any means. The shape of many would render them unsuitable for foundational purposes, which, together with their lack of burials, demands some other explanation. The problem of classifying mounds from a functional point of view is a very difficult one. I shall find it convenient to avoid it as far as possible.

In the matter of assemblage, it must be confessed the Monks Mound group does not conform to the practice, so well exemplified in the smaller outlying groups, whereby the mounds are arranged more or less regularly around a plaza. However our map may be at fault here (it has let us down on other occasions) and in any case there is a suggestion of such an arrangement in petto in the section immediately east of the big mound. We are justified therefore in holding this not-too-formal plaza assemblage as a tentative Cahokia characteristic. The fact of orientation in accordance with the cardinal directions is clear and unmistakable. The evidence in

favor of defensive works of any sort is almost completely negative.

House types: When it comes to the question of houses the hopeless inadequacy of our information begins to reveal itself in no uncertain fashion. Our single bit of evidence concerns the two circles that Moorehead found at the base of Mound 33, and these he thought were ceremonial. Even assuming them to have been house circles, their position at the base of an important mound would render them useless as an indication of the sort of houses regularly used by the Cahokia people. This gap is one that is sure to have been filled by Kelly's researches, and it may therefore be significant that Deuel, who has no doubt first-hand knowledge of Kelly's material, presumes Middle Mississippi (1) houses in general to have been more commonly rectangular. If we know nothing about Cahokia architecture in respect to design, we do at least know something about construction. The occurrence of briquettes, i.e. lumps of accidentally fired clay with reed or cane impressions, is general enough to permit the inference that the Cahokians employed some form of wattle-and-daub construction.

Burials: Obviously the information at hand does not make possible any general statement in regard to burial rites. Dr. Moorehead repeatedly deplores his failure to find a cemetery.

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(1) Deuel, 1935.

Burials in mounds cannot safely be regarded as typical. So far as it goes, then, the evidence indicates that the prevailing treatment was extended burial without orientation. There is very little evidence of flexed burial. Secondary burial in the form of bundle or bunched burial seems to have frequently occurred, and there is pretty good evidence of some form of mass burial but whether primary or secondary is not quite clear. Bones were uniformly in very poor condition, the amount of measurable skeletal material being practically negligible. Grave furniture seems to have been at a minimum, a circumstance of some interest in view of the fact that abundance of pottery in graves is said to be one of the determinant characteristics of Middle Mississippi culture. Here again it must be cautioned that burials in mounds may not be typical. The earlier pothunters seem to have done rather well on the plain between the mounds.

Artifacts: Stone: Thanks to the papers by P. F. Titterington, already cited, it is possible to deal with stone work at Cahokia in at least a superficial manner. It is hardly necessary to call attention to the insufficiencies of evidence derived almost entirely from surface collections. A great many of the more advanced types of stone artifacts are not likely to occur as chance finds on the surface.

Most typical in the chipped department is the thin triangular point, with or without side notches, more rarely with basal notch. The side notched points are often provided with additional notches,

increasing in number pair by pair until in some cases the points are classified as serrated. I have already referred to the basal notched point, the so-called "Cahokia point", in connection with its occurrence at Aztlan and Spoon River. Thus it is by no means confined to Cahokia, nor for that matter to sites in the Monks Mound Aspect -- it has been reported from sites further down the River. Nevertheless it occurs here in sufficient numbers to indicate that it is at home here. When (hopefully) the typological classification of Mississippi stone industries comes to be written, I should think it likely that the "Cahokia type" will stick. As an additional special feature, the type is said to be generally associated with the use of fine translucent materials.

Evidently quite as characteristic, and a good deal more interesting are the large flaked "agricultural implements", found at Cahokia in considerable numbers as well as at many other sites of Middle Mississippi affiliation. Their occurrence as a minor factor at Aztlan has been already noticed. Curiously enough, none were reported in the Spoon River Focus. The source of the material, so far as Cahokia is concerned, appears to have been the famous Mill Creek quarries of Union county, southern Illinois. This rather coarse, dirty-tan-colored chert occurs in very large flat nodules, lens-shaped in section, consequently eminently suited for the manufacture of large flat blades. It is soft in comparison with other flints, has little or no lustre, but evidently flakes readily. The

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(1) Phillips, W. A. Aboriginal quarries and shops at Mill Creek, Illinois. Am. Anth. n.s. vol. 2, 1900, p. 39.

possibilities of this material were fully realized by the Cahokians and related peoples.

These large flints are arbitrarily divided into two groups, "hoes" and "spades". The division is based for the most part on mere size, "the hoes under eight inches in length and the spades over eight inches", but the names are unfortunate in that they imply, not only a different method of hafting, but also a different method of use. I think there can be no reasonable doubt that both sorts were hafted and used in precisely the same manner, that is with the blade at right angles to the haft, hoe-fashion. Rather than this two-fold grouping, a classification based on significant morphological differences all along the line would be far more useful, but so far as I know nothing of this sort has been attempted.

A detailed description and study of distribution of these large flints would be an excellent subject for a special inquiry, and one that would have, no doubt, an important bearing on the definition of Middle Mississippi. One feels no hesitation in assuming that it would prove to be one of the most reliable criteria for this phase of culture. Furthermore, typological differences from one aspect to another would very likely be equally definitive. Nor must the possibility of a connection between these and analogous artifacts in the Southwest be overlooked. Large chipped blades, not dissimilar in form are found in the Mimbres culture of southwestern New Mexico, and are here likewise

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assumed to be agricultural implements.

Rarer than the agricultural implements just described, but evidently characteristic of the Cahokia culture, are beautiful large leaf-shaped knives. Very similar blades are fairly common in the Cumberland culture as we shall see. It may prove to be an important minor determinant for the Middle Mississippi phase.

Information in regard to polished stone cutting tools is very meagre. About all one can say with any certainty is that the grooved ax is very rare if not absent entirely. Celts appear not to have been abundant, are referred to as "small". Perhaps the general negative aspect in this department is due to the fact that cutting tools of this class were often chipped from flint or flint-like materials, were either only partly polished or polished not at all. This applies particularly to the so-called "turtle-back" adze, as well as long narrow-bitted types usually referred to as picks or chisels. This tendency toward partial polishing of chipped cutting tools has been previously noted, in connection with its occurrence as a minor factor in Fort Ancient. The trait was not present at Aztlan and Spoon River. I believe, nevertheless, that it is a Middle Mississippi diagnostic, though perhaps it would be wise to

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(1) Nesbitt, 1931, p. 80, pl. 35. Nesbitt calls them hoes or spades. Were found in large caches (reminiscent of mode of occurrence in the Mississippi). These Mimbres examples, however, are longer, narrower, and show no evidence of hafting. Furthermore, they taper slightly, and the business end appears to have been the smaller, just the reverse of the Mississippi types. They are really more like picks than hoes. In spite of these obvious differences, there may yet be some significance in the circumstance that in both areas chipped stone was a material for agricultural tools.

see how its distribution can be followed southward before venturing any positive assertions on this point.

One of the celts from Spoon River exhibited in rudimentary form a tendency, which, coming into its full development at Cahokia, resulted in a very interesting type of artifact, the spatulate celt, or "spud". Such implements are, of course, very rare, but enough examples have turned up in the neighborhood of Cahokia to warrant the assumption that it is a Cahokia feature. Recently I have seen photographs of precisely similar implements taken from the famous Spiro mound in eastern Oklahoma.

Discoidals of the bi-concave type occur at Cahokia, but are perhaps too rare to be cited as a common characteristic of the culture.

Various writers (McAdams, Moorehead) figure stone effigy pipes, but it is difficult to find out how many of them actually came from Cahokia. We have, however, in the Museum a cast of part of one that is described in the catalogue as having been taken from a small mound a mile and a half from the great Monks

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(1) Cf. Titterington, P. F. "A Flint Spud from Cahokia". Am. Antiq., vol. 1, No. 4, April 1936, pp. 321-22.

(2) Titterington's large collection contains but 4 complete and 4 fragmentary specimens. A cache of 6 discoidals is said to have been found a number of years ago about 300 yards east of Monks Mound (Titterington, 1938, p. 8).

Mound in 1873. "Original is in the Missouri Historical Society. It is made of catlinite. Part of the head and other portions of body are present in the Society." (Peabody Museum Catalogue).

This is unquestionably the same specimen figured by McAdams in (1) its restored condition. Considerable interest attaches to this pipe, because of the obvious similarities to the very fine pipes recently obtained from the Spiro mound in Oklahoma. Other pipes figured by McAdams show even more striking analogies. It is a pity that they cannot be definitely associated with Cahokia.

Taken in conjunction with the flint "spuds" which also have their counterparts at Spiro, a fairly strong line of connection between the two sites is indicated. While on the subject we may recall that the stone ear spools overlaid with copper at Aztlan also (2) found their counterparts at Spiro.

Bone: Perhaps owing to the nature of the evidence very little can be added to what has already been said about the role of bone materials in Middle Mississippi culture. The high promise held out by the Upper Mississippi sites has not been fulfilled. Bone is principally in the form of awls and needles; a few bone beads

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(1) McAdams, 1883, P. II, no. 16.

(2) Since writing the above my attention has been called to the fact that while the commoner types of points at Spiro are notched and stemmed, there occurs as a minority factor a triangular side-notched point, which occasionally also has a basal notch, in other words the "Cahokia type".

(1)
and a few antler tip arrowpoints complete the inventory.

Shell: The general statements concerning the use of shell by the Spoon River people could be repeated here without change. All authorities are in agreement as to the importance of shell in collections from Cahokia. In view of the paucity of burials so far encountered, this abundance appears the more striking.
(2)
Engraving on shell, however, does not appear.

Copper: The reports indicate that implements and tools of copper were very rare if not lacking entirely, but that there was considerable use of it in the form of plating over objects of wood and bone.
(3)
The question of copper plates decorated with a repoussé technique is raised by an early reference to certain small plates taken out of the Big Mound at St. Louis which bore traces "of some sort of engraved decoration."
(4)
Repoussé copper and engraved shell seem to go hand in hand in the Southeast, the design elements in both media are frequently the same. In this connection it is interesting that the "Eagle Eye" (of which more anon) a prominent feature in repousse work is said by Moorehead

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(1) The importance of the antler point as a Middle and Upper Mississippi determinant here receives a serious check. In a collection that numbers over 3500 chipped arrow points, Titterington reports only 4 fragmentary antler points. (Titterington, 1938, p. 11).

(2) Thruston says gorgets of spider type have been found near E. St. Louis (1897, p. 335).

(3) The Titterington collection includes one diminutive copper celt, but the author does not refer specifically to the circumstances of its discovery. (Titterington, 1938, p. 11).

to be a characteristic Cahokia symbol, occurring as pottery decoration. In view of the importance of repoussé copper and engraved shell as diagnostics in the Southeast generally, it is unfortunate that the Cahokia evidence is not more revealing.

Pottery: The inadequate and hopelessly superficial account of Cahokia pottery that follows is based on a limited amount of sherd material examined at the Ceramic Repository of the University of Michigan together with information furnished by J. B. Griffin and W. C. McKern. I am particularly sensitive on the score of its inadequacy in view of the fact that Dr. Kelly is at the moment preparing his final report which will deal at length with the pottery situation, particularly from the point of view of stratigraphy. For Cahokia, it appears, is a stratified site with at least two horizons correlated with distinguishable types of (1) pottery.

The first and older complex of types associated with Kelly's "Old Village culture" is, according to Griffin, practically indistinguishable from the pottery of Aztlan, with its predominance

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(1) It is suggestive of the present status of pottery studies in the Mississippi Valley, that for any published description of Cahokia pottery per se one has to go back to an excellent paper by Charles Rau published in the Smithsonian report for 1866!

Since the above was written Titterington's latest report on Cahokia village site collections has appeared. It contains some descriptive material on pottery and refers to the stratigraphic division between the "Old Village" and the "Beanpot" culture, but does not attempt to divide the materials described on this basis (Titterington, 1938, pp. 11-13).

of fine polished dark ware often with incised decoration. The prevailing shape, a carinated bowl with short, sharply outstanding rim, decoration on the upper zone or shoulder. There are also globular bottles with short necks, seed bowls, and tall cylindrical vases slightly constricted in the upper portion. One sherd noted had fine post-fired engraving with a cross hatched design very similar to the sort of thing encountered further down the river in eastern Arkansas, also at Moundville. Moorehead illustrates (1) several sherds of this type. Unfortunately I am unable to say whether or not redware and painted ware occurs in this earlier level. McKern thought that they did, but doubtless would not want to be quoted on this point. He was fairly explicit, however, as to the absence of cord-marking in this horizon, an extremely (2) interesting circumstance.

Pottery of the upper level, the "Beanpot Culture", so-called from one of the outstanding shapes, is said to be as closely related to Spoon River, as that of the lower to Aztlan. There is, in other words, a fundamental Drab Ware, with Cord-roughened and Polished Variants and a Redware. If Lost Color enters the picture I have no record of it. There is in addition a variant in which cord-marked vessels are red slipped on the interior. The slip is, I believe, normally confined to the interior of the rim. This may be a specialized Cahokia feature. I do not recall having seen it elsewhere. A description of these types, on the limited

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(1) Moorehead, 1928, Pl. XX, 8; Pl. XXI, 2, 3; Pl. XXII, 4.

(2) Information by W. C. McKern.

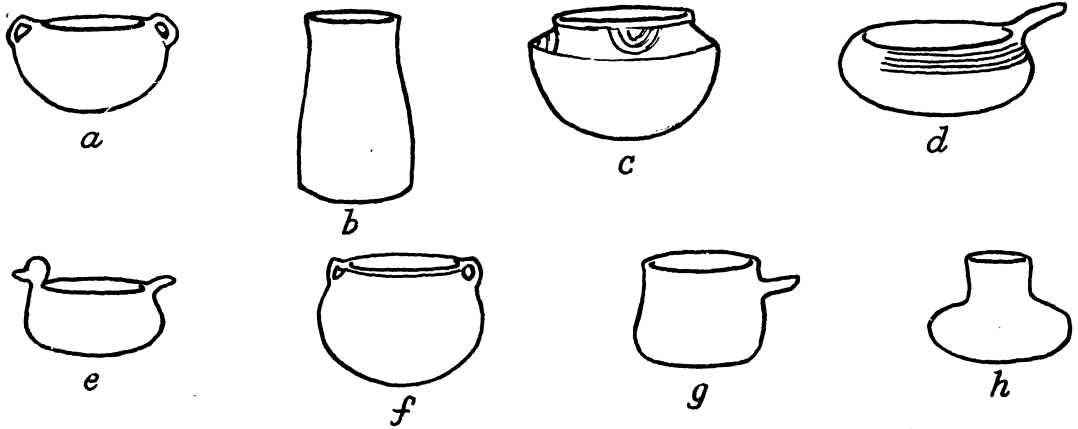


Fig. 22. Characteristic Cahokia shapes. a-d "Old Village culture"; e-h, "Beanpot" culture. (Titterington, 1938, Figs. 39, 40, 43.)

data at my command, would be nothing more than a repetition of the section devoted to Spoon River pottery. As far as I can see the parallelism is very close. Redware, perhaps, makes a better showing at Cahokia. A special kind of beanpot with handle modelled to represent a crude arm and clenched fist seems to have been frequently, if not always, executed in red ware. At any rate a large number of these "Soviet salute" handles appear in sherd collections.

A small series of Cahokia pottery shapes is shown in (1) Fig. 22. In the top row are shapes characteristic of the "Old Village" culture, the remaining shapes belonging to the coarser "Beanpot" culture, which takes its name from the so-called "beanpot" shown in g. Aside from the ubiquitous "standard jar

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(1) From Titterington, 1938.

form" (a, f) which occurs in both, there is a marked difference in the style and treatment of the two groups. The close similarity of the Old Village material to pottery from Aztlan scarcely requires emphasis. There is, however, the possibility of a remoter resemblance, which cannot be passed over without comment, a resemblance to certain lower Mississippi types, notably the "Caddo" of southern and southwestern Arkansas. This is seen in the tendency toward pronounced carination, resulting in the well-known "cazuela" form shown in c, and the tall cylindrical vase form which can be matched in the beautiful "seed urns" of the Ouachita river. The resemblances are general rather than specific, but are nonetheless sufficient to suggest a very interesting consideration which I shall return to presently.

The second and presumably later "Beanpot" group of shapes, besides the patent relationship to Spoon River already referred to, shows general and far-reaching affiliations with practically all known manifestations of the Middle Mississippi phase. Except for the beanpot itself, which is apparently a fairly local specialization, these shapes can be duplicated over and over in the Cumberland, in the Cairo Lowland of southeast Missouri and in eastern Arkansas. There can be no question, then, that the

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(1) The term "casuela" was introduced into Arkansas archaeology by Harrington (1920) and promptly became "cazuela".

(2) So far as I know, this type of vessel, which has a local distribution along the Ouachita river in the vicinity of Arkadelphia, Ark., has not yet been illustrated in any publication.

Beanpot culture is Middle Mississippi in the full sense of the term. What about the Old Village culture? This is said to be Middle Mississippi as well, but of a slightly older vintage, in fact both levels are presumably included in the same aspect of the Middle Mississippi Phase. The "southern" appearance of the pottery shapes mentioned above, combined with certain indications of a similar nature at the closely related site of Aztlan (bastioned palisade defences, double-disk ear-spools) suggest that the difference between these two levels may be more far-reaching than is recognized by the classification. It is the Old Village culture that is associated with the period of great mound building activity at Cahokia. The Beanpot-Spoon River facies appears not to show any pronounced mound building tendencies. Is it not possible that the Old Village-Aztlan facies represents an advanced mound building culture of more definitely southern inspiration than the later and more typically Middle Mississippian culture at the site? The answer to this query, so necessary to an understanding of the whole Middle Mississippi problem must await the publication of the University of Illinois' excavations.

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- (1) Titterington, 1938, p. 15.
- (2) Report Indiansopolis Conference, 1937.
- (3) Titterington, 1938, p. 15. "Certain artifacts and traits have been found to have been associated definitely with the Monks Mound or "Old Village" culture. These are the platform mounds, split-bone and polished bone awl, ear-spools, thin polished pottery, three-notched triangular points, chert spades, mushroom-shaped pottery trowels or shapers and burial extended in the flesh."

Until we know more about the actual stratigraphy at Cahokia, we shall have to ignore, as the classification has done, these all-important chronological implications and lump all the Cahokia-Aztlan-Spoon River material together regardless of time considerations into some sort of definition of the "aspect" we are considering. It is, it seems to me, a perfect example of the prime folly of archaeological classification without chronology!

A specialized type of pottery, hereinafter to be described, commonly referred to as salt-pan ware occurs at Cahokia but unfortunately I have no information as to the nature of its occurrence. A few sherds are illustrated by Moorehead but I can find no reference to them in the text. One would like especially to know whether the type is present in lower or upper levels at the site. From its absence at Aztlan one is tempted to the conclusion that it is late, but it was also lacking at Spoon River. Salt-pan pottery is undoubtedly an excellent diagnostic for Middle Mississippi culture, but owing to its specialized function in connection with the evaporation of salt, it is not likely to be found except in the vicinity of saline springs. As a determinant in the McKern sense, it is open to the same objections as the practice of building palisade fortifications. Its presence is interesting, perhaps significant, but its absence may have no meaning whatever. I shall have a great deal more to say about salt-pan ware in

connection with the Cumberland aspect of Middle Mississippi
(1)
culture.

Miscellaneous pottery objects: The nature of the evidence at Cahokia does not permit one to say much about the occurrence of the various smaller objects in clay that we have come to regard as peculiarly diagnostic of Mississippi culture. Titterington illustrates a pottery disk, a trowel and a few beads, one of owl effigy form. (2) Pipes are commonly of pottery and show a close adherence to the general Middle Mississippi "equal-arm" type. It is particularly unfortunate that information relating these various objects of pottery to one or the other of the two levels is entirely lacking. One has, nevertheless, a distinct impression that they tend to associate with the later "Beanpot" horizon.

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(1) From this very feeble consideration of the pottery stratigraphy at Cahokia, certain tentative suggestions of an interesting nature present themselves. First, that cord-texturing may be a relatively late introduction so far as Mississippi ceramics is concerned. Second, that certain forms highly characteristic in this section of the Middle Mississippi, the soup-plate, beanpot and rim effigy bowl, may likewise be relatively late. I wish it were possible to go further and infer that the use of pigments, either as a slip or in painting, is also late, but this is merely an impression which I am unable to support with evidence. One has the same impression with respect to salt-pan ware, and the same inability to objectify it.

(2) Titterington, 1938.

4. Summary of Monks Mound Aspect

We are now theoretically in position to summarize the culture of the Monks Mound Aspect as represented at Aztlan, Spoon River and Cahokia. This is not as simple as first appears. Cahokia is obviously the key to the situation. The relationship between Aztlan and Spoon River derives mainly from the fact that both are related to Cahokia. But Cahokia, we are assured, is a stratified site with two levels. The connection of Aztlan is with the earlier, that of Spoon River with the later of the two horizons. Again we see the difficulties resulting from classification by deduction. Should it develop that the two levels at Cahokia represent two different aspects, which is not altogether impossible, then obviously Aztlan and Spoon River could not be included in the same aspect. Yet, to carry our suppositious reasoning a step further, it might be perfectly possible for their relationship in the same aspect to be established in spite of their separate connections with discrete aspects at Cahokia, owing to a partial convergence of the older culture at Aztlan with the newer at Spoon River. This is becoming a little involved. What I am getting at is simply this, that the McKern system works best in two dimensions, when a third, namely chronology is introduced, grave complications are likely to result. I believe this is a case in point.

It is scarcely necessary to add that generalizing on the culture of the supposed Monks Mound aspect, without more information on the nature of the stratigraphy at Cahokia, is a very

shaky proceeding. However, all cultural summarizations in the present treatise are put forward merely as tenuous expedients, whose sole purpose is to furnish the groundwork for still more tenuous generalizations of wider scope. The summary that follows is particularly so.

Sites of the three manifestations are so entirely different in general characteristics that it is impossible to bring them together into any sort of general statement. In respect to planning and assemblage of mounds and other features, Spoon River can be counted out at once, it is not even evident that mounds here were deliberately constructed qua mounds, but rather just came about as the result of certain burial practices. The arrangement at Aztlan may have been dictated more or less by the exigencies of defence. The Cahokia sites, on the other hand exhibit some pretty clear cut characteristics. Mounds are grouped about some sort of plaza in a manner which shows regard for orientation. Orientation tendencies are likewise observable at Aztlan. This factor alone is, I feel, of the utmost significance. As I have said before, the extent to which efforts at a true and consistent orientation on some fixed celestial point were successful is of little consequence. The fact that they made the effort at all sets the Cahokians apart from the Woodland peoples and equally from the Upper Mississippi peoples we have so far considered. That such town planning is a southern factor scarcely needs to

be pointed out. Nevertheless it is interesting to note that other Middle Mississippi cultures, to which Cahokia stands closest geographically (and presumably culturally) do not exhibit these tendencies to the same degree. For anything comparable we have to go down the River to Louisiana and Mississippi. Thus we have at Cahokia a trait which appears more clearly as a Lower rather than a Middle Mississippi determinant. Clay-covered palisades with projecting bastions point in the same direction, though with special emphasis in the direction of the lower Ohio valley and the Cumberland.

Coming to the question of mounds as such, generalizations become difficult if not impossible. I am convinced that too much has been made of the distinction between pyramidal and conical mounds. It would be very well if it were possible to show that the former were always designed as foundation platforms and the latter as burial tumuli. Unfortunately such is not the case. Furthermore, in the aspect we are considering, there is no clear segregation of the two types. Large pyramidal and large conical appear in approximately equal numbers. Smaller mounds are generally conical, but here destructive factors come into play to alter the shape. The large pyramidal mounds seem mostly to have been foundation platforms, built up by gradual accretion. The large conical mounds have in some cases contained burials, important group burials in log chambers; in other cases they have presented superimposed floors and remains of structures comparable to conditions

revealed by the pyramidal mounds. Thus it is possible that pyramidal mounds are always domiciliary, though I doubt it, whereas conical mounds may clearly be either domiciliary or mortuary (or both- that possibility must also be considered). The sort of burial mound that occurs on Spoon River sites is another thing entirely. Here it is questionable whether what may be called the "mound concept" comes into play at all. At Aztlan we encountered two other factors, a terraced mound, probably domiciliary in purpose, and a mound which may have been designed merely as a platform for the erection of a "ceremonial pole". It may be seen that the classification of mounds is not an easy matter.

Some sort of general statement, nevertheless, I am determined to make. Might it not be put this way? The importance of mound building in the Monks Mound Aspect is attested by the number, size and variety in form and function, of mounds exhibited. A slight preference for the rectangular truncated type is displayed, though perhaps overemphasized by the fact that the great Monks Mound itself is of that type. There is a marked tendency for large mounds, regardless of shape, to be stratified by the superposition of floors, in short, to be domiciliary in function, and it is this tendency, I believe, more than the superficial form, that constitutes a determinant for Middle Mississippi culture.

The evidence in regard to house types offers little chance

for elaboration. Houses at Spoon River were rectangular but in all other respects of an elementary simplicity. There was no evidence at Aztlan and next to none at Cahokia. The circular structures found by Moorehead may have been, as he suggests, ceremonial. Wattle-and-daub construction has been inferred from the presence of briquettes at Aztlan and Cahokia. However, at Spoon River, where actual houses were excavated no briquettes were encountered. Briquettes at Aztlan might conceivably relate only to the palisade construction, there is no proof so far as I know that houses were plastered. At Cahokia there seems not to have been a palisade. The inference here that briquettes refer to domestic structures seems not unwarranted. In any case the use of clay daub as a general trait is unquestionably a valid determinant of the Monks Mound aspect.⁽¹⁾

It is impossible to say much about burial practices, except for the Spoon River sites. The necropolis of Cahokia, if there is such a thing, has so far eluded the search of generations of diligent pot-hunters -- and archaeologists. Apparently the dominant form is extended burial, with secondary "bundle", and occasional mass burials as important minority factors. No orientation is observable, a circumstance seemingly at variance

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(1) The absence of clay daub at Spoon River suggests that this may be another of the traits peculiar to the "Old Village" culture not shared by the later "Beanpot" people, in which case it could be added to the list of "southern" features belonging to the earlier cultures.

with the regard for orientation shown in the placement of mounds. Grave furniture was fairly abundant at Spoon River, rather poor at Cahokia. Often cited as a determinant of Mississippi culture, abundance of grave furniture seems not to be particularly applicable here.

Of stone artifacts the definitive type is the small flat triangular point, unnotched or with side notches, more rarely basal notch ("Cahokia point"). Large points and knives also run to triangular and lanceolate forms. Large flaked agricultural implements are certainly characteristic of Cahokia and are present at Aztlan, but cannot be said to be determinant for the whole aspect, because of their absence at Spoon River. Closely associated with them are various chipped cutting tools, variously referred to as picks, chisels, adzes, celts, "turtle-backs", etc., whose chief characteristic is that they are only partly polished, usually at the business end which is brought to a fine edge. This, I believe, is an important Middle Mississippi character. Polished celts with flared bit, though rare, seem to be diagnostic. They reach their peak in technique of workmanship in the so-called "spuds" of Cahokia. Discoidals may or may not be determinant. They occur, but in no remarkable profusion. The position of the discoidal in Middle Mississippi archaeology will perhaps be clarified by study of the regions further south. Special features of

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(1) Titterington states that "chert spades" are associated definitely with the "Old Village" culture at Cahokia, hence their absence in Spoon River may be another chronologic indication. He doesn't say anything about "hoes", however. (Titterington, 1938, p. 15).

considerable interest are stone double-disk ear-spools, sometimes overlaid with copper, and large human effigy pipes. Both point straight to Spiro with resemblances that are too close to be fortuitous.

Generalizations in respect to bonework are precluded by the almost complete lack of evidence for Cahokia. Besides the common artifacts such as awls, needles, etc. the only things that can be said to be determinant on the inadequate evidence before us are (1) socketed antler arrow points. One feels reasonably certain that with more evidence, the small cylindrical flakers could be added, possibly the bone fish-hook. But even with the evidence as it is, it seems safe to venture the suggestion that the use of bone and antler is a good deal less comprehensive than in the Upper Mississippi cultures we have considered. From now on our efforts to define Mississippi culture in its Middle and Lower phases will depend less and less on these materials.

Not so with shell, however. If the evidence of this material has seemed unsatisfactory, it is because of the paucity of burials at Aztlan and Cahokia. At Spoon River shell was most abundant.

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(1) Titterington's recent paper, (1938) which appeared since the above was written, makes it quite clear that the bone point is not a Cahokia feature. Its importance, therefore, as a Mississippi diagnostic is considerably lessened.

There can be no doubt that a prolific use of shell, particularly marine species, is one of the outstanding characteristics of Middle Mississippi culture. A recapitulation of the great variety of objects in this material is unnecessary. Aside from the "Unio" hoes and spoons, they are chiefly comprised under the category of personal ornamentation, beads, pendants, ear ornaments, etc. No doubt certain specific types will be found to be determinant for this aspect of culture, but it is such detail that I am anxious to avoid.

One or two negative factors, however, cannot be overlooked. We find no mention of shell gorgets or masks, both of which, it will be recalled were found in Fort Ancient. Furthermore there is no evidence of carving or engraving in this material. I should not like to push this too far, however. From the general nature of things at Spoon River, one would not expect objects representing the more highly developed aspects of the culture. Cahokia is the place where such things might be expected. With more burials they may yet be found.

A fairly large amount of evidence of copper was obtained, but without exception it relates to sheet metal in the form of overlay or rolled beads. I can find very little evidence of implements or utensils definitely associable with the culture. Titterington's large Cahokia collection contains one small copper celt. McAdams figures a number of copper implements "from the mounds", but I have learned to be very wary of this

writer. The flared celt suggests very strongly a copper prototype, something similar to the long ceremonial axes found at Moundville. (1) One of McAdams's axes is of this type. It is unfortunate that we cannot pin this question down one way or the other. The use of copper in the Mississippi pattern is becoming one of our major points of inquiry.

Generalizations having to do with the pottery of the Monks Mound aspect are rendered impossible by the presence of two distinct pottery complexes, each with its own peculiar characteristics and with very few features common to both. Shell tempering, that well-nigh universal Mississippi diagnostic, predominates in both groups, and the "standard Mississippi jar form" with minor differences is the common cooking-pot in both. The "Old Village"-Aztlan ware is characterized particularly by its thin paste, dark polished surface, spiral meander decoration and sharply profiled shapes. The later "Beanpot"-Spoon River pottery, on the other hand, is marked by the usual Middle Mississippi fundamental drab ware with cord-roughened and polished variants, coarser and thicker paste, with more variety and less refinement in shape and less of both in decoration. There is perhaps greater use of red pigment and there are indications that the specialized salt-pan ware is present only in the later period. The earlier ware has a distinct lower Mississippi "feel". The

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(1) McAdams, 1883, Pl. I.

second group, on the other hand, is the more thoroughly Middle Mississippian. The interesting thing is that it is difficult if not actually impossible to derive the second from the first. One is unable to escape the impression that two discrete ceramic strains have met and mingled at Cahokia, rather than that one evolved out of the other.

It is impossible to conclude this section on the Monks Mound "aspect" without emphasizing again the importance of the stratification at Cahokia and its implications for Middle Mississippi in general. Both the "Old Village" and the "Beanpot" levels are unquestionably Middle Mississippi according to present acceptance of the term. But the divergences between them seem to be sufficiently far-reaching to suggest that Middle Mississippi is far from the simple cultural manifestation in two dimensions envisaged by the classification, but is perhaps susceptible of division throughout on a chronological basis. At least the evidence at Cahokia, so far as it goes, indicates that an earlier phase (impossible to dispense with the term, here used, of course, without classificatory significance) characterized by elaborate and formalized mound complexes and defensive works, highly ceremonialized burial customs involving mass burials, a high development of minor sculpture (effigy pipes, ear-plugs, spatulate celts, etc.) and a relatively simple but highly finished ceramic,

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(1) One cannot help thinking in this connection of the large-scale funerary sacrifices of the Natchez.

was succeeded by a phase in which the construction of mounds and earthworks fell into abeyance, burials became more casual, though more profusely furnished with offerings, and in which pottery had become more complex, particularly on the side of form, at the expense of finish. It is unquestionably the earlier phase that shows the closest relationships with the South generally and with the great sites of Etowah, Moundville and Spiro in particular. This was the period when the culture of the Southeast reached its apogee. The succeeding phase appears by comparison as one of decline, except in pottery-making, a decline that ushered in the period of white

(1)
domination.

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(1) An interesting speculation -- whether it was not the pressure of the expanding colonies in the East setting in motion such aggressive groups as the Iroquois and the Sioux that was the chief factor in the decline of the great mound-building peoples of the interior?