IV. MIDDLE MISSISSIPPI "PHASE": CUMBERLAND "ASPECT"

(1) The Cumberland "Aspect"

The Cumberland region of central Tennessee has long been recognized as a center, perhaps one is justified in saying the center, of a very interesting and highly developed culture. From one of its most characteristic features it has most often been referred to as the "Stone Grave Culture". It has also been called "Tennessee-Cumberland". While it is certainly true that stone graves are more abundant here than anywhere else in North

(1) The term "aspect" is here used with unwarranted freedom. I have done so mainly for the sake of consistency with what has gone before, and because, after ploughing through a considerable mass of published and museum material, I feel reasonably sure that an aspect it will ultimately prove to be. I have also a certain measure of authority. Thorne Deuel, of the University of Chicago, has tentatively classified the Kincaid site, still in process of excavation by the University, as belonging to the "Gordon-Fewkes Aspect". Since Gordon and Fewkes, as we shall see, are typical Cumberland sites, Deuel has therefore postulated a Cumberland Aspect, only under a different name. I can think of no good reason why Gordon-Fewkes is a better name than Cumberland, except that it has a slightly more "scientific" ring, and so far as I know it has not been used in any publication, nor has it achieved any sort of currency among workers in the field, therefore I shall adhere to the simpler and, I think, altogether more appropriate appellation.

(2) For some reason, the precise nature of which I have not been able to ascertain, it is often referred to as "Moorehead's Tennessee-Cumberland". In his "Etowah Papers" (1932, p. 166) Moorehead refers to the designation as one that he had "formerly applied" but does not give the reference. It is very likely that he was the first to use the term "Tennessee-Cumberland", "Stone Grave Culture" being the older expression.
America, they are by no means confined to this region, nor are they necessarily always present on sites of the culture to which they have given name. Moreover a descriptive name for a culture often has the effect of over-emphasizing the trait to which it refers, and I think this is no exception. The alternative designation, Tennessee-Cumberland, seems therefore more appropriate. However, I cannot find any good reason for the Tennessee part of the name. If it refers to the State it confuses the issue, because the culture is certainly found outside of Tennessee; if the River is intended, even worse confusion results because for almost its entire length the Tennessee river is the seat of cultural manifestations differing materially from the one in question. It seems therefore preferable to drop the "Tennessee" and call this culture, if we can show that it is in fact a cultural unit, simply "Cumberland".

The distribution of the Cumberland culture is a subject on which I am in no wise prepared to embark. From the immense number of large sites in the immediate neighborhood of Nashville, there can be no doubt that this middle portion of the Cumberland valley is a most important focus of the culture. From here the distribution appears to have followed up the southern tributaries such as the Harpeth, Stone and Caney so that a large portion of central Tennessee is accounted for. How much further south the culture can be traced I am not prepared to say. Earlier writers frequently allude to remains of the "Stone Grave People" in northern Alabama
and Georgia, and there are, indeed, numerous records of the occurrence of stone graves in these regions. The difficulty, of course, is that all writers have proceeded on the assumption that the presence of stone graves alone was a sufficient criterion for the culture. Thus Etowah, because of its stone graves, has been often included. Stone graves are likewise found on the lower Tennessee river, which carries them down into Alabama. Here again, I think, the same doubts may be raised. Stelle's early account of Savannah, not far above the Alabama line, as well as the investigations of C. E. Moore in this part of the Tennessee river, seem to me to indicate a culture similar to, but differing in important essentials from that of the Cumberland.

The extent to which the culture may be traced to the east and northeast is also problematical. It seems to be clearly traceable about to the point where the Cumberland leaves Tennessee and enters Kentucky. From this point on the information is very vague. Webb and Funkhouser record the presence of stone grave sites along the river for a certain distance, but lament the fact that they have all been looted and consequently little information about the associated culture is recoverable. Even assuming that the culture is straight Cumberland, it is apparent from the paucity and small size of sites that we have gone out

(1) Stelle, 1872.
Moore, 1915.
of the area of central importance.

There remains, then, the lower Cumberland, especially that portion that flows through western Kentucky to join the Ohio. The distribution of the Cumberland culture in this direction is a good deal clearer, being supported by evidence from sites recently excavated by Webb & Funkhouser. Finally comes the question as to how far the culture can be followed down the Ohio (perhaps also up) to its junction with the Mississippi. The principal evidence here is the Kincaid site now being excavated by the University of Chicago near Metropolis in southern Illinois on the Ohio river, not far below the mouth of the Cumberland.

Thus a fairly extensive distribution is indicated, involving an immense number of sites. It would be difficult if not impossible to summarize the available information, which is

   A preliminary report of recent excavations by the T. V. A. in the Chickamauga Basin makes it appear quite probable that a culture closely related to the Cumberland extends into this portion of East Tennessee. (Paper by Charles H. Fairbanks, delivered at the Fall meeting of the Society for Georgia Archaeology, Oct. 14, 1938, p. 35).

(2) University of Kentucky Reports in Archaeology and Anthropology. Various numbers.

(3) Unpublished.
surprisingly abundant, in a single operation. Furthermore it remains to be shown that all of the archaeology I have indicated actually relates to a single aspect of culture. Therefore it seems the best course to consider first the middle Cumberland section, the culture of which appears to be the most typical. Then, having gained some notion of what Cumberland culture is, we may examine the Kentucky sites and the Kincaid site with a better opportunity to judge whether or not they also should be included.

The Nashville district: The archaeology of the Cumberland valley "broke" at a time when there were few institutions or individuals capable of appreciating its significance, nor were these few in a position to prevent the wholesale destruction of archaeological evidence. Stone graves, unfortunately, are easily sounded by means of a steel rod, so it is not likely that many escaped. General Thruston estimated in 1904 that somewhere in the neighborhood of 20,000 graves had been "opened" within a radius of 40 miles of Nashville. His word on this point is not to be taken lightly for he himself opened 3000 in a single cemetery just outside the city.

Considering these conditions, we may be thankful that such men as Joseph Jones and General Thruston were on hand. Their

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writings, unmarred by the "mound builder" extravagances that prevailed at this time in many quarters, are still among our best sources for the archaeology of the region. To which must be added the work of Professor Putnam in the late 'seventies and early 'eighties, and the more recent excavations of W. E. Myer for the Bureau of American Ethnology. In addition to these and other lesser sources, I have made as much use as possible of extensive collections in the Museum, particularly in the case of pottery, which is not adequately dealt with in any of the published material.

The number of sites involved in this central area of the Cumberland culture is too great to permit individual consideration, nor would such detailed treatment seem called for. I may remind the reader that my object is merely to bring sufficient material into a rough and ready synthesis, so that the general outlines of Cumberland culture may be clear enough for a consideration of its bearings on the general Mississippi problem.

(1) Jones, 1876.
    Thruston, 1892.
    "  1897.
    "  1898.
    "  1904.

(2) Putnam, 1878.
    "  1882.
    "  1883a.
    "  1883b.

(3) Myer, 1894.
    "  1917.
    "  1924.
    "  1928.
2. **Cumberland culture -- non-ceramic.**

*Cumberland sites:* Information in regard to general site characteristics is not altogether satisfactory. The attention of the earlier investigators was focussed on the cemeteries. Mounds, unless they contained graves, which was not generally the case, were soon discovered to be unproductive of artifacts, thereafter given scant consideration. An exception must be noted in the case of fortified sites which aroused some early interest, so that we have in Jones's excellent work, and in various contributions in the early Smithsonian reports, a number of plans of such enclosures which afford some information on their shape and arrangement of mounds and other features within. To which, of course, must be added the very adequate information furnished by the later explorations of Putnam and Myer. These also are concerned mainly with fortified sites, so the fact remains that we have very little information about sites that were not so defended. This is unfortunate because the early accounts all agree that the great sites in the immediate vicinity of Nashville *(1)* were undefended. This information, perhaps, should be taken with reservations, because of the rapidity with which traces of these low earthen walls are obliterated by cultivation. In any case circumvallations occur with such frequency on sites of this culture, that in describing such a site as typical we cannot be

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*(1)* Thruston speaks of a "cordon" of fortified sites surrounding the large undefended centers in the immediate vicinity of Nashville. 1897, p. 4.
far wrong, though recognizing the possibility that the largest
(and perhaps most typical) sites were not so walled about.

Locations chosen for these fortified villages seem to have
been principally the banks of rivers or streams, one side of
the enclosure frequently being formed by the stream itself, in
which case the normal irregular oval shape is modified to a
D-shaped figure. The embankments forming the enclosures are
variously described. Evidently a great deal depended on the
state of preservation at the time of description. In no case
do they appear to have been more than a few feet high, or, in
other words, what would result from the practice of throwing
earth against the base of a palisade wall to increase its stabi-
licity. Only in one instance, that of the Lindsley site excavated
by Prof. Putnam, is there any mention of a ditch on the outside
of the wall. In the section devoted to Aztlan I have already
had a good deal to say about palisade construction, particularly
with reference to the presence of bastions. This feature is
plainly exhibited in a number of Cumberland sites. Taking into
consideration the ease with which it could escape the attention
of early investigators, it seems quite possible that bastions may
have been a regular feature of Cumberland earthworks in general.
I have found no evidence that these fortifications were plastered
with clay, as at Aztlan, but we do know that wattle-and-daub con-
struction was used for other purposes by the Cumberland people,
so it is not unlikely that their defensive works were so covered.
The arrangement of mounds and other features within the enclosures is not particularly definite. One can say unhesitatingly that nothing comparable to the rather strict regularity and orientation of the various Cahokia groups is apparent. A plaza, more or less centrally located, there is to be sure, but in place of a number of mounds more or less formally disposed about it, we have here normally one big dominant mound abutting on the plaza and perhaps one or two very much smaller mounds showing little or no relationship to the larger structure. The dominant mound is not large by Cahokia standards, but only in relation to the smaller mounds which are inclined to be quite small indeed. Plans of a number of characteristic sites may be seen in Fig. 23.

**Mounds:** Perhaps the most difficult category of evidence in mound archaeology to reduce to generalization are the mounds themselves. The reason is, of course, that our information in most cases is confined to superficial appearance, whereas it is features of interior structure and function that are really significant. The Cumberland area is no exception. To begin with, we may as well consider the burial mounds. Practically all burials in this area are in stone graves, which may be either scattered about indiscriminately, or concentrated in a closely-packed cemetery, or still more concentrated in superimposed layers to the height of several tiers in what to all
Fig. 23. Cumberland sites. a, deGraffenreid (Jones, 1876, Fig. 23); b, Hughes (ibid., Fig. 46); c, Old Town (ibid., Fig. 47); d, Lindsley (Putnam, 1878); e, Gordon (Myer, 1928, Pl. 95).
intents is a mound. Putnam encountered such a mound on a site just outside Nashville. From his description it is evident that a mound of this sort is simply the result of growth by accretion of stone graves, possibly without any conscious intent to raise a mound. This may be the case for all so-called burial mounds in the Cumberland. I find no specific evidence to the contrary. I have raised this point before (see p. 209) because it seems to me that it may be significant of a general distinction between Mississippi and non-Mississippi cultures. What, for example, is the most striking fact in connection with Hopewell mounds? Surely, the fact that their primary purpose is to raise a monument to the dead. There is every indication of conscious deliberation. Such mounds are really burial mounds in the fullest sense, are comparable to burial tumuli the world over. I am beginning to wonder whether anything of the sort is actually present in the Mississippi pattern. So far, at least, the evidence is negative.

Having disposed of burial mounds, if indeed they merit that designation, the remaining structures seem to fall consistently into the domiciliary class and to present, wherever information in regard to their construction is available, certain definite characteristics. In reference to Cahokia I spoke of the tendency for mounds of the domiciliary class to be stratified.

(1) Putnam, 1878, pp. 311-12.
Here the evidence is far more striking. All of the mounds on which any information is available had at least two levels, most of them more. One mound showed no less than seven. Such levels consist of hard packed clay floors, usually showing the effect of fire, sometimes presenting a carefully smoothed "glossy black" surface, which I shall speak of later with reference to house types. These floors undoubtedly represent the floors of structures, though not very much information is available as to their exact nature. The technique of post-hole digging had not been perfected at the time when these excavations were made. "Altars", generally found on these surfaces, are of course nothing more than the fireplaces pertaining to the structures in question. Thus the evidence is perfectly clear that we have in these domiciliary mounds, as in the burial mounds, a result of gradual accretion by a succession of buildings one above the other. But, and this is perhaps a significant difference, here I think one can show that the mound intention is a deliberate one. As far as I can make out with the evidence at hand, the lowest level is not usually at the base of the mound. There is at the very beginning of the series a foundation platform, no matter how small. Furthermore, the succeeding floors are separated generally by several feet of earth, which seems to indicate that in each

(1) Jones, 1876, p. 80.
Fig. 24. Schematic diagram illustrating difference between Mississippi and Hopewell types of mound construction. a, Mississippi; b, Hopewell.

case there was an effort to raise the foundation structure higher as well as to make it larger. It is precisely the sort of situation that is revealed every time a pyramidal structure in the Maya area is excavated. It is probably no accident that this is the typical mound structure in the Mississippi pattern, whereas in the Hopewell, even in cases where you do get mounds representing more than one stage of construction, the procedure is entirely different. The difference is shown schematically in Fig. 24.

I have elsewhere given reasons for discounting the mere shape of mounds as a criterion for classification. This is particularly true in a region like the Cumberland, where mounds tend, on the whole, to be rather small. Thus it is not surprising to find that several of the stratified house mounds just discussed are oval, instead of the orthodox rectangular
shape. In many cases this may be merely the effect of cultivation and erosion. At the same time it would seem wise to keep an open mind in respect to this question of mound shape. It might well be that the shape of the mound was determined by the shape of the structure for which it was raised. As we shall see in considering house types, there is some doubt about the inevitability of the rectangular form in houses as well. If it should develop that there were, as in so many other regions, notably the Southwest, a tendency for the survival of a circular principle in religious and ceremonial structures, we should expect that foundation platforms designed for such structures might likewise be circular or oval.

**House types:** This leads directly into the subject of house types, which is a very interesting one in this area. I shall speak of the ordinary dwellings first, then go on to consider ceremonial or religious structures, if indeed the distinction is a valid one. At the very outset we are faced by a situation that requires careful consideration. All descriptions, early and late, dealing with sites that have not been under cultivation, refer to large numbers of circular depressions, "house circles", "hut rings", etc. The most careful study of all the existing literature, with one notable exception, I am convinced, reveals no evidence that does not point to the prevalence of circular house types in the Cumberland culture. Bear in mind that this
includes not merely superficial descriptive material but reports of actual excavations of these "house circles" by Putnam and Myer. The exception is a notable one. T. M. B. Lewis, for several years in charge of excavations in Tennessee for the TVA, in a recent summary report makes the following statement, "The so-called hut rings or house circles of Middle and West Tennessee have been represented by previous investigators to contain the remains of circular dwelling houses. We have made a thorough investigation of many of these and in all instances have discovered rectangular post-mold patterns." This would have been a staggering blow, had we not been prepared for something like it by the discovery that similar depressions in the Spoon River focus likewise revealed rectangular structures. But here in the Cumberland we have categorical statements based on actual excavation that these house types are circular. It behooves us to reexamine the evidence with some care.

Fortunately such reexamination is not very difficult, because there is not very much evidence. After describing the superficial appearance of the "nearly one hundred" hut rings found at the Lindsley site, Putnam goes on to say: "Nineteen of the best defined of these earth circles were carefully explored with very gratifying results, and proved to my satisfaction that the ridges

(1) Putnam, 1878.
Myer, 1928.

were formed by the decay of the walls of a circular dwelling, about which has accumulated, during its occupancy, such materials as would naturally form the sweepings and refuse of a dwelling of a people no further advanced toward civilization than were these mound-builders of the Cumberland valley. These houses had probably consisted of a frail circular structure, the decay of which would leave only a slight elevation, the formation of a ridge being assisted by the refuse from the house." Portions of the floors of these dwellings were uncovered, and beneath them, in some cases were found small stone graves containing child burials. Nothing is said about post-molds, nor is there any other sort of evidence bearing on the question of shape. In other words it appears that Putnam merely assumed a circular shape from superficial appearance as so many others have done, without making any effort to prove it in his subsequent excavation.

Myer goes far beyond Putnam's mere assertion that houses are circular, by showing a number of plans and sections based on actual excavation. This should settle the matter once and for all. They are perfectly circular in outline, being neatly delimited in each case by a single row of post-holes uniformly spaced with the most

(1) Putnam, 1878, p. 349.
(2) Myer, 1928.
surprising precision. We do not ordinarily give the Indian credit for such consistent accuracy. Furthermore they are all exactly alike. It is only when we look through the text to ascertain just how the author was able to locate these posts so satisfactorily that we discover a disquieting fact. He does not seem to have located any post-holes at all! The only reference to such features runs as follows: "At no point in this town were traces of wood or wooden structures found except where the wood had been reduced to charcoal. When uncharred and left to natural decay, all trace of wood vanished. It is well to note that no post-holes, save those with charred wood, were found. It is therefore impossible to state with certainty that structures (1) existed where no trace was found." "There is evidence indicating the existence of the line of wall posts shown in the diagrams of circles Nos. 3, 23, 42, 79 and 84, but time and the elements have destroyed all remains of them. Only in rare instances where the wood had become charred were any traces of wooden (2) objects found on the Gordon site." Just what this "evidence" is the author leaves to the imagination of the reader. I think any one who has tried to work out one of these house floors will agree that, lacking post-molds, it is practically impossible to get any idea of the original shape of the house.

(2) Ibid., pp. 515-16.
Therefore the evidence which Myer refers to was probably the superficial appearance of the "circle" before excavation, in other words the same that had impelled so many previous investigators to postulate a circular house type. It is interesting that in his report on the Fowkes site in the same publication, where Myer found similar conditions, the plans are presented in a different manner, with an honest dotted line indicating the probable outlines, which in no case even approximates a true circle. Even the dotted lines are not based on post-molds, however, for in one plan two post-molds are actually indicated. If he had found more, they would undoubtedly have been likewise shown. This plan is also interesting in that at one point the dotted line makes a definite corner. The contrast between the two methods of presenting what is undoubtedly the same type of house is striking.

There seems to be no real evidence, then, in conflict with Lewis's statement that houses in the Cumberland region were rectangular in plan. Whether or not this rule applies to ceremonial houses as well is a question that should be considered separately. First let us dispose of what little additional information we have on the normal dwelling house type. About all that can be said in regard to their structure is that in some cases a wattle-and-daub construction is clearly indicated. There is no evidence of interior supporting posts, the supposition being that the exterior wall posts were bent inward to form a
dome-shaped roof. There is abundant documentary evidence for this sort of roof in various parts of the eastern United States in the early historic period. However, the evidence is entirely insufficient to postulate definitely a roof of this sort. Interior features are simple enough, a central fire-basin of puddled clay, often very carefully formed, and an occasional storage pit sometimes covered with a clay capping. The fine glossy black floors characteristic of the larger "ceremonial" structures, were also found in ordinary dwellings. An interesting feature was the frequent occurrence of child burials in small stone graves just below the house floors, often in direct association with the fire-basins.

The only information I have about the larger structures that may have been ceremonial or religious in character comes from Myer, whose data I have learned to approach with circumspection. On the Gordon site there was a principal mound, which contained floors at various levels, which were almost certainly floors of structures, but which Myer interpreted as the traces of elaborate fire ceremonies. He thought there was a building on the summit but of course found no traces of it. Adjoining the mound on its west side, however, he found the traces of a large building which he called the temple. According to his plan, one side, the side abutting on the mound, was straight, making altogether a D-shaped figure. Again there is the same difficulty owing to the fact that
he shows a line of wall posts which may have been wholly imaginary. Worse, he shows a line a few feet inside the wall posts indicating the edge of a raised "banquette". One is left to wonder whether the banquette is likewise imaginary. Probably he found traces of it at one or two points and assumed it was circular like the building. On the Fewkes site Myer found traces of two floors in a mound, which he interpreted as pertaining to large ceremonial buildings. It was in these, particularly in the second level, the "House of the Mysteries" (and well named, too) that he uncovered patches of the black, glossy floor surface, which unfortunately lost its lustre upon exposure to the air. He did not uncover very much of either of these floors, but at least in the "House of the Mysteries" he got a corner, which would certainly indicate a rectangular plan.

Lewis's statement, I take it, referred to ordinary houses on the surface and not to structures in mounds, otherwise I should not have wasted so much time over this information of Myer's. The upshot of the whole discussion is, it would seem, a strong probability that ceremonial structures, whether in mounds or on the surface, were likewise rectangular. We have added something, not much to be sure, to our previous knowledge of Middle Mississippian house types and this knowledge has strengthened the presumption that they tend to follow a rectangular tradition. It will be interesting to see if houses in southeast Missouri, where similar "house circles" are the rule, are likewise actually rectangular in fact.
**Burials:** The stone grave burials of the Cumberland have received such wide attention and are so well known generally that it hardly seems necessary to say very much about them. As I have already suggested, there is room for a special study of this type of burial, particularly in respect to its distribution. Without such information it is impossible to gauge the extent to which the presence or absence of stone graves can be used as a criterion for culture determination. The force of this remark will be clear when we come to consider sites on the Ohio river, such as Webb's Tolu site and the Kincaid site in southern Illinois, sites which show close cultural affinities with Cumberland but lack stone graves. For the present we are considering the middle Cumberland district and here the evidence is plain. For this portion of the Cumberland culture stone graves are *de rigueur.* So far as I have been able to discover, they occur on all sites, usually in great numbers, to the virtual exclusion of other types of burial. The situation is not quite so simple, however, as this statement would make it appear.

There are at least three types of stone graves: (1) rectangular with extended burial; (2) small rectangular with secondary "bundle" burial; (3) round or polygonal with flexed burial. The difference between the first two types is of little or no significance. The association of extended and bundle burials is apparently a constant characteristic of Mississippi culture in general. We have,
then, merely the adaptation of stone grave construction to a fundamental pattern. The round graves containing flexed burials cannot be dismissed so easily. Unfortunately there is not very much evidence for this type. At the center of a small burial mound on the DeGraffenreid site, a large fortified village south of Nashville, Jones found a hexagonal stone grave containing a "seated" skeleton holding a beautiful long flint blade or "sword", the largest and most perfect chipped stone implement of this kind ever discovered in America or elsewhere." Also in this grave were an earthenware vessel (undescribed) and two large seashells decorated with red paint. The interesting point is that around this central grave were ranged nine ordinary rectangular stone graves containing material which, so far as I can make out from the description, is perfectly characteristic of the Cumberland culture. There is no reason, it would seem, to doubt the association of these two types of graves and their general affiliation with the Cumberland culture. The only other occurrence of this flexed type of stone grave burial I have noted is from Myer's excavations on the Fewkes site. He found two such graves of hexagonal shape in a small mound. The mound had originally contained other stone graves, but these

(1) Jones, 1876, p. 58.
had been destroyed by relic hunters. Myer is very dogmatic about these burials. They are the "flexed-burial people", the first inhabitants of the site and the builders of all the mounds. The only materials found in these graves were two pottery vessels and a few shell beads. It must be confessed that neither of the vessels as they appear in illustration are quite typical, or let us say, among the most typical of Cumberland forms. One of them, a very fat human effigy, would, I think, be more at home in the New Madrid section of southeast Missouri. Otherwise than this very fragile thread, I can see nothing whatever in the evidence to warrant the assumption that a different people or culture is involved.

Nevertheless the presence of flexed burials in however small quantity must not be passed over in silence. Evidence is accumulating in the Southeast generally to the effect that flexed burials are earlier than extended, the latter coming in with, or at least at the time of, the spread of Mississippi types of culture. The survival of an earlier pre-Mississippi practice of flexure might conceivably have a slight chronological bearing on the position of the Cumberland culture.

Aside from the variations just noted, the stone graves of the Cumberland present, on the whole, fairly uniform characteristics. The typical rectangular grave consists of a box-like cist of rough

(1) Myer, 1928, p. 587.
stone slabs on edge, supporting a covering of similar slabs.

The bottom is often paved with a rude mosaic of stones, occasionally with large potsherds of salt-pan pottery. When opened, such graves are generally filled in solid with earth, by infiltration, I presume, though some authors seem inclined to the opinion that they were deliberately filled at the time of interment. In exceptional cases they are found to be quite clear of any fill. Arrangement of graves in cemeteries apparently varied a good deal with local conditions. Certainly in a great many cases they appear to have been crowded together into a very small space, so that the slabs of one grave formed the wall of the next. Perhaps also attendant upon crowded conditions was the tendency to pile them up in tiers, the result being a sizable burial mound almost solidly composed of stone graves. I have already raised the question as to whether such a structure deserves to be called a burial mound.

Abundance of funeral offerings is generally cited as a Mississippi determinant. As a generalization it does not hold in this area. Considering the immense number of stone graves ransacked, the amount of material recovered is not large. I have

(1) Edwin Curtis (Field-notes in Peabody Museum) found at Mrs. Hayes' farm near Nashville a series of graves made of carefully worked stones "jointed and brought to a line". I cannot forbear quoting the whole thing, orthography and all: "I saved six grave rocks but got home with only one whole slab which is perfect the others having broken to pieces in the bottom of the wagon I regreted the loss of those more than I can tell as they were worked like those people worked there flints equally as true they were a prize but it could not be helped I have this one left which is 2 ft. 8 in. by 16 in. wide by 3/4 of an inch thick."
noted several sorrowful accounts in which large numbers of graves have been opened without any find whatever. There is a faint indication that these unrewarding graves were secondary burials, and perhaps this is the explanation.

Again, one is tempted by the possibility of chronological implications in the paucity of artifacts in Cumberland graves. In other sections of the Mississippi valley, notably Arkansas and Louisiana unfurnished graves seems to be definitely a pre-Mississippi condition.

One very interesting point is the constantly recurring evidence of special treatment for children. Most striking is the occurrence of children's graves, likewise in stone coffins, beneath the house floors. This practice, and particularly certain special features in connection with it, offers a temptation to speculation, which we unfortunately have no time for. These sub-floor burials are very close to the surface as a rule, in some cases the cover slabs actually projected above the surface of

(1) The evident richness of the Peabody Museum collections is misleading until one goes to the field notes and discovers how many burials were rifled to produce this amount of material. For example at the Gray site, near Old Town, Curtis cleared 172 graves. The majority were without any artifacts. At Mrs. Hayes' farm near Nashville he dug 137 graves. The material recovered can easily be accommodated by one storage tray in the Museum. About four-fifths of these graves (by actual count) were sterile. At Rutherford's in Sumner county a similar proportion was maintained, 82 graves without artifacts out of a total of 107.
the floor. It is somewhat reassuring to be told that in prac-
tically all cases these burials were secondary. As a trait having
obvious ethnologic significance, this may be useful in linking
the Cumberland with other cultural centers. So far, in our study
of Upper and Middle Mississippi manifestations it has not appeared.
We shall see it occurring, however, in the New Madrid section of
the St. Francis Basin and from that point may be able to trace it
further. One thinks, of course, of the importance of sub-floor
burial in the Mimbres region of the Southwest. In addition to
sub-floor burial one finds frequent notice of special burial fields,
or portions of cemeteries which seem to have been reserved for
(1) children. There is, furthermore, not a little evidence that such
graves are on the whole more productive of artifacts than adult
burials. Such, at least, is my impression. I should not care to
state it as a fact without careful collation of all possible in-
formation. In any case, here are certain indications that children

(1) After clearing 148 stone cists in a mound on the Gray site
near Old Town, Edwin Curtis moved off into an adjoining field
where he found three times as many children as adults. In spite
of the fact that many graves had been disturbed by the plow, he
"had good luck as long as it lasted and I think it must have been
very rich before the plough took the top rock off the graves."
By comparison with the mound it would seem that the children's
graves were more abundantly supplied with offerings than the adults'.
(Field notes in Peabody Museum).

One of the special attractions of Fain King's "Ancient Buried
City" at Wicklyffe, Kentucky, a site closely related to the Cumber-
land culture, if not actually of it, is an infant burial mound.
(King, 1936, p. 36).
deceased were accorded special rites of one sort or another. Tentatively, I believe, this may be taken as a determinant trait of the Cumberland culture.

**Artifacts: Stone:** Notwithstanding the general paucity of grave furniture, the Cumberland culture is by no means a meagre one. There is a moderately large amount of material from literary sources that can be utilized, unfortunately, a much larger amount that, because of uncertain association, cannot be utilized. A great deal of this material is probably all right, but I shall disregard it nonetheless. The resulting picture of Cumberland archaeology will, consequently, err inevitably, but the error will be on the side of safety.

The evidence on which I am obliged to say something about Cumberland stone work is of the most unsatisfactory nature. One of the outstanding characteristics of the culture is that implements of stone very seldom make their appearance among the burial offerings. On the other hand a great deal of excellent stone artifacts have been obtained in the region, as isolated surface finds or caches, frequently on actual stone grave sites. There is a great deal of such material in the Putnam-Curtis collection, very little of which can be positively associated with the Cumberland culture. Unfortunately Edwin Curtis was empowered by the Museum to buy as well as dig and it is not always possible to ascertain either from the Catalogue or from his field-notes which
of the two activities is in question. However, by adding to that portion of the collection, unimpeachable because actually found in stone graves, information culled from the various literary sources, it is possible to give a fairly adequate picture of the stone resources of this interesting people.

Chipped implements: Projectile points are by no means as common as one has the right to expect, either in graves or in general digging, particularly since no evidence of a substitute material for arrowpoints is at hand. Not more than 20 points, of the several hundred in the Putnam-Curtis collection can be definitely traced to graves, and of these only 7 are properly describable as arrow points (Fig. 25). They are of an elongated triangular shape with concave bases. Larger points (presumably "javelin" points) tend to notched and stemmed forms. This meagre sample is borne out by the literary evidences so far as they go. One must conclude, therefore, that the triangular point, said to be such a powerful determinant for Mississippi culture, though present, is of little importance in the culture of the Cumberland.

Beautiful long leaf-shaped blades are of sufficiently common occurrence to be regarded as diagnostic of the culture. Particularly when they terminate in what may be called (borrowing a term from architecture) an "ogee" point (See Fig. 25a). Occasionally the edges are finely serrated. Extremely long blades comparable
Fig. 25. Chipped and partly polished types, Cumberland.
Scale 1:2. (Putnam-Curtis Collection, Peabody Museum.)
to those discovered by Moorehead at Etowah have been reported in definite association with the culture. The identity in material and workmanship of the Etowah and Cumberland examples forms a strong link in the relationship of the two cultures.

Large flaked agricultural implements, (Fig. 26), comparable in every respect with those from Cahokia, though seldom if ever found in graves, are of such common occurrence on stone grave sites that their ascription to the Cumberland culture may be taken as practically certain. As at Cahokia and elsewhere they

(1) Moorehead, 1932, p. 69. Moorehead refers to a collection from Duck River (near Nashville) which contains long blades of precisely similar type and says that they are manufactured from the same "brown flint" as the Etowah examples.

(2) Jones, 1876, p. 58. In a mound on the DeGraffenreid site, on Big Harpeth river. The circumstances of the find merit quotation at length. "In the center of this mound was a carefully constructed octagonal stone grave... This grave contained a skeleton which appeared to have been buried in a sitting posture; the head had fallen down upon the lumbar vertebrae; the arms rested at the sides; and the legs were crossed in front. On the right side lay a long dark-brown silex implement or weapon (spear-head, or sword-blade?), 22 inches in length, and 2 inches in width at the broadest portion, being abruptly pointed and serrated at the cutting end, and tapering at the handle. The edge of this formidable 'stone sword' was uppermost, and the bones of the fingers rested around the tapering portion or handle. This appears to be the largest and most perfect chipped stone implement of this kind ever discovered in America or elsewhere."

The Putnam-Curtis collection contains a broken specimen from the same mound (See Fig. 25b).
Fig. 26. Agricultural implements, Cumberland culture. Scale 1:2. (Putnam-Curtis Collection, Peabody Museum).

exhibit a considerable range of size and shape which has led to their arbitrary classification into "hoes" and "spades". The inadequacy of this treatment has already been remarked. However, for our present purpose, it is sufficient to observe that here, as at Cahokia, the use of these interesting implements seems to offer an extremely useful criterion for the Middle Phase of Mississippi culture.
Ground stone celts of various shapes are present (the grooved ax, never) but far more characteristic are the partly polished chipped celts and adzes (Fig. 25, i, j, k). This is a point of some importance, I believe, for the definition of Mississippi archaeology. The tendency to use chipped flint for various cutting tools with subsequent polishing limited generally to the cutting edge was foreshadowed at Fort Ancient, and, though absent apparently at Aztlan and Spoon River, appeared again at Cahokia. Though the score is not a perfect one, it is sufficiently high to warrant considering this general tendency as a determinant for the Mississippi congeries of cultures. It will be interesting to see how far this is borne out by subsequent investigation of other Mississippi cultures.

The larger implements of this category are very well made and normally present a lozenge-shaped section, or in the case of adzes a triangular section, that makes them very thick at the middle. From this characteristic they are often referred to as "hump-backed". The smaller adzes, a particularly common implement, are, on the other hand, flattish in section.

Before turning to objects in the ground and polished category, it is necessary to refer to those curious and completely unsatisfactory eccentric forms in chipped flint commonly found in the Tennessee-Cumberland area. Unsatisfactory because,
though associated with the Cumberland more closely than with any other culture east of the Mississippi, it is not possible to nail down this association beyond possibilities of doubt. Duck River, a small tributary of the Tennessee, well within the general region of the Cumberland culture, seems to be the headquarters for this type of object. Unfortunately, they have always been found in caches, not in graves, and always under circumstances that render their cultural association doubtful, if not actually suspicious.

Of chief interest is the so-called "mace" (Fig. 27). Its resemblance to the object held by dancing figures depicted in

(1) Flints of somewhat different type, but obviously belonging in the same general category, were found at Etowah (Moorehead, 1932, Fig. 55, p. 84). Specimens, more nearly resembling the Tennessee types, were found at Spiro, eastern Oklahoma.

(2) I have been at some pains to get the history of the specimens in the Putnam-Curtis collection. From various allusions in Curtis's notes and letters to Prof. Putnam it appears that they were all bought from individuals who claimed to have dug them up in stone grave sites. Some of these advices are very curious. In reference to the Banks Link site on Duck River, Curtis is constantly expressing his desire to go down there "to find that pile of large stone tools". He speaks of them always as if he knew they were there, as though some one had reported them but hadn't bothered to take them out of the ground. In a letter dated October 20, 1879, he says: "I took the man with me that was with the man that found them and he thought he could go and find them but failed to do so." Later, however, he may have been successful, for the flints found their way into the Museum. Unfortunately I can find no actual record of their purchase.

In this connection it is interesting to note what Moore has to say concerning the activities of fakers in this general region, with particular reference to antiquities from this same Banks Link site mentioned above (Moore, 1915, pp. 175-176).
Fig. 27. Flint "mace", Cumberland. (Putnam-Curtis Collections, Peabody Museum).
shell carving and repousse copper has been frequently noted. Also its counterpart in the similarly shaped wooden object recovered from the muck at Key Marco. The supposition that it may have as a remote prototype some sort of atlatl seems to me to be perfectly gratuitous. These flint maces are by no means common, the only other occurrences outside the region under consideration, so far as I have been able to discover, being in eastern Arkansas and at Spiro, Oklahoma. This is not as surprising as might appear, the correspondences between the Cumberland and Spiro, as we shall see, are numerous and far-reaching.

**Polished stone: spatulate forms:** The term "spatulate celt" or "spud" is loosely used to cover a number of implements in polished stone which may, or may not, have some logical connection. Unhappily it is necessary to go into the subject briefly, because the spatulate in one form or another seems to be identified with a Mississippi type of culture. Without attempting a classification, I shall assume that there are at least three types of spatulate that need to be distinguished. These are shown in Fig. 28. To the first (a) I shall reserve the term "spud". The implement and the name are equally problematical as far as I am concerned. The second (b) I believe is correctly designated

(1) Cf. Figs. 36, 76.

(2) Cushing, 1896.
Fig. 28. Spatulate forms: a, the "spud"; b, the shouldered celt; c, spatulate celt, Cahokia type. (a, c from the Peabody Museum collections; b, Moore, 1907, Fig. 90).

as a "shouldered celt". The third (c), which would seem to lie nearer the original celti-form prototype, may be informally called the "Cahokia" type, in honor of a very beautiful example in the Peabody Museum from that site (not illustrated). May I emphasize

(1) Illustrated in Moorehead, 1928.
again that this is in no sense a classification, but is merely put forward for the sake of intelligibility in what follows.

All three types are said to be found in the area occupied by the Cumberland culture. Except the third, it is difficult to associate them with sufficient certainty to the Cumberland culture. In the case of the third, or "Cahokia" type, there can be little question. Thruston illustrates three examples "from cemeteries in the vicinity of Nashville." A beautiful example in white quartz in the Putnam-Curtis collection is, unfortunately, a surface find. The presence of this type of celt in the Cumberland provides an additional linkage, not only with Cahokia, but also with Moundville, where a precisely similar example was found. The type occurs at Etowah, but only in the form of a monolithic ax, of which more anon. It is perhaps no accident that at both latter sites there were found numerous large "ceremonial" axes of copper, which have, not unnaturally, this same spatulate form. It has been found also at Spiro, in Oklahoma.

(1) Thruston, 1897, p. 230, Figs. 137-138.
(2) Moore, 1905, p. 151, Fig. 26.
(3) Moorehead, 1932, p. 82, Fig. 52.
(4) Moore, 1905, Fig. 28; Moorehead, 1932, p. 53, Fig. 25. The possible derivation of this type of celt from a copper prototype offers an attractive subject for a special study, involving as it does a parallel situation in European archaeology.
(5) Information from Dr. Forrest Clements.
Everywhere, so far as I know, it is associated with fine translucent material, which combined with the excellent workmanship, makes it one of the rarest and most sought-after objects in the whole field of Southeastern archaeology.

The case of the long handled objects for which I have chosen to reserve the term "spud" is not so satisfactory. While they have undoubtedly been found in considerable number in the region occupied by the Cumberland culture, they also enjoy a wide distribution far beyond its boundaries. On the other hand examples figured by Thruston are said definitely to have come from stone (1) grave cemeteries near Nashville. The most that can be said on such evidence, therefore, is that the implement (or ornament) was almost certainly known to the Cumberland people but may very well have been obtained by them from elsewhere. In short, as a determinant for that culture, the spud has little or no value. From the point of view of the general setting of the Cumberland facies, this is by no means disturbing, since I doubt very much if the spud can be shown to be of significance in any other Middle Mississippi culture. From another point of view, however, it offers an interesting subject for speculation. Along with other highly developed traits of the Cumberland (ceremonial flints, the spatulate celt, shell carving, repousse copper, etc.) the spud (2) also appears at Spiro. Now, as I shall attempt to show passim,

(1) Thruston, 1897, Fig. 203, p. 295.
(2) Information from Dr. Forrest Clements.
Spiro is in some way, not yet established, connected with the so-called "Southern Hopewell" and is almost certainly older than the Middle Mississippi cultures of eastern Arkansas. The common possession by the Cumberland and Spiro of traits that do not appear in eastern Arkansas points very strongly to the supposition that the Cumberland, though unquestionably a Middle Mississippi culture, is relatively earlier than the Middle Mississippi manifestations in eastern Arkansas. I shall have a great deal more to say on this point in a later section.

The position of the shouldered celt, in the Cumberland specifically and in Middle Mississippi generally, could be described in the same terms used in the case of the spud, except that its additional presence at Etowah and Moundville brings these two important sites into the question.

**The monolithic ax:** It seems probable that the monolithic ax likewise belongs to this association of elaborated ax forms. In fact it requires no undue imagination to envisage a "cult of the ax". So rare, however, is the monolithic ax, wherever found, that the single specimen reported from the Cumberland becomes an important piece of evidence. It was taken by Dr. Joseph Jones from

(1) Moorehead, 1932, Fig. 50, p. 80.
Moore, 1905, Fig. 11, p. 142; 1907, Fig. 90, p. 393.

(2) As indeed MacCurdy does (1916). "In the New World the cult of the ax is especially evident in the more or less elaborately carved effigy axes of semi-precious stone from Mexico and Central America, in stone statues represented as holding hafted axes, and in the monolithic axes from our own Southern States, the West Indies and the West Coast." (p. 301). He might have added the rare spatulates and shouldered celts mentioned above.
a large stone grave site immediately across the river from Nash-
ville. To make its association with the Cumberland culture doubly
certain, there was found in the same burial a vessel decorated by
the "lost color" process (of which more anon) in the most charac-
teristic Cumberland style. I shall not enter into a discussion
of the distribution and significance of this interesting ex-form,
beyond noting that remarkably similar examples were found both
at Etowah and Moundville (Fig. 29) and that a number of specimens
not yet described have been reported from Spiro. Thus again we
have evidence, slender to be sure, but of unmistakable import, link-
ing the Cumberland with these more conspicuous centers.

I am conscious of having done very little to justify devoting
so much space to these various refinements of the celt. More
careful research would show, I believe, that they all belong to
a complex of advanced ceremonial traits (of which shell carving
and repousse copper are the most conspicuous) shared by sites as

(1) Jones, 1876, pp. 45-46.

(2) So far as I know Spiro is the only site in the Southeast
that has produced monolithic axes "on a commercial basis". So
striking is this fact that some observers are inclined to suspect
their genuineness.

(3) Besides MacCurdy's excellent paper quoted above, the subject
has been dealt with by Saville (1916) and, more recently, by Loven
(1935, pp. 155-163). Loven offers the interesting hypothesis of
a Southeastern origin for the trait. This is contrary, of course,
to the generally accepted supposition that it originated in South
or Central America and entered the Southeast possibly by way of
the Antilles.
Fig. 29. Monolithic axes. (a, Peabody Museum, Yale, provenience unknown, MacCurdy, 1916, Fig. 1; b, Cumberland culture, Thruston, 1897, Fig. 163; c, Moundville, Moore, 1905, Fig. 6; d, Etowah, Moorehead, 1932, Fig. 52e).
distant from one another as Etowah is from Spiro. As this study proceeds I shall have more and more to say about this nexus of traits. For the present it is sufficient to indicate their mere presence in the Cumberland in order to emphasize the connections of that culture with better-known sites such as those just mentioned.

**Discoidals:** Polished stone discoidals are generally considered as markedly characteristic of Mississippi cultures. Their presence, however, in regions to which Mississippi culture never penetrated (in its entirety) is somewhat damaging to this supposition. I have been at particular pains to check their presence or absence in the various Mississippi cultures thus far considered. The results are not very illuminating. Small discoidals were found in Fort Ancient, particularly in the southernmost sites along the Ohio. The trait seemed to fade out northward and was absent in the Iroquois. None were reported from Aztlan, none from Spoon River, and, while they are said to be found at Cahokia, no actual record of occurrence was encountered. We approach the Cumberland, then, with no very strong convictions as to the importance of the discoidal as a Mississippi determinant. Here, however, the case is somewhat better. Small discoidals, both

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(1) Willoughby (1935, p. 111) figures several large bi-concave discoidals from sites in New England. "... the they were doubtless introduced into New England by the old Algonquian people..."
with convex and concave surfaces, are undoubtedly very common. That the beautiful large bi-concave type also belongs to the culture, I am unfortunately unable to say with certainty. They occur in the region, perhaps with greater frequency than in any other part of the Southeast, but almost invariably as isolated (1) surface finds. Again, as in the case of the flint "mace", we may resort to pictorial evidence. The chunky player depicted on the famous Eddyville gorget (Fig. 36 a) is almost certainly hurling an object of this nature.

**Ear-plugs:** Stone ear-plugs are likely to prove important in the working out of Mississippi relationships. The prevailing type in the Cumberland is a narrow napkin-ring-like affair without pronounced flanges. A broad flanged or double-disked type, not unlike the Aztlan (and lower Mississippi) type is present, (2) however, but rare. Both types also were made in pottery, and whether in pottery or stone, were likely to be covered with copper.

**Pipes:** I have already called attention to the apparent paucity of stone pipes in various Mississippi cultures, the simple and obvious explanation being the wide use of pottery pipes in

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(1) Vide Thruston: "The large 'hurling' disks are rarely found in the stone graves in the vicinity of Nashville. So far as we can learn, but a single one has been discovered buried there. . . ." (1897, p. 265).

(2) The specimen figured by Thruston (1897, Fig. 75, p. 169) is not definitely placed as to its cultural associations, but the finding of a very similar ear-plug in pottery in a stone grave makes it highly probable that the type is Cumberland (Thruston, Fig. 74, p. 168).
their stead. The Cumberland is no exception. After "opening" hundreds of stone graves, Edwin Curtis, in a letter to Prof. Putnam, laments: "I have found no pipes that does not seem to be my luck I have found some fine large beads and small ones I have had good luck with them but no pipes it makes me almost cuss some times." Occasional human effigy pipes have been reported, usually of doubtful association. Prof. Putnam found one very interesting specimen at the Lindsley site. Particular interest attaches to this pipe, because almost identical specimens have been found at Etowah and at the Hollywood mound on the Savannah river just below Augusta, an eastern outpost of Etowah culture (Fig. 30).

Stone images: From effigy pipes to sculptured figures or "idols" is but a short step. Considering the high degree of correspondence between the Cumberland and Etowah, particularly in the matter of stone working, it would be surprising if the Cumberland did not furnish examples comparable to the sandstone figures discovered by Prof. Moorehead at Etowah. There are indeed a great many of them, comparable in every respect, except perhaps somewhat cruder in execution. The difficulty, as in the case of many other larger artifacts in stone, is that they invariably occur as isolated finds without context. Their close stylistic affinity, however, with effigies in clay, which do occur in graves, seems to place the matter beyond question. We
Fig. 30. Small stone effigy pipes; a, Hollywood Mound, Georgia (Thomas, 1894, Pl. XXIV; b, Lindsley site, Cumberland culture (Peabody Museum); c, Etowah (Thruston, 1897, Fig. 82). Scale of b, c, 3:4.

may conclude, then, with reasonable certainty, that the Cumberland people made and presumably worshipped idols of stone. If this can be established as a Mississippi trait, we shall have a factor of considerable interest from the point of view of Mexican relationships. An interest not lessened
by the fact that the style of these figures, in a crude blundering way, is remarkably similar to the scarcely less crude Mexican examples of a late period.

The list of objects in stone may be concluded by the mention of various smaller implements and ornaments. Limestone beads of flattened globular form show remarkably careful workmanship. Unperforated stone balls are also common, their use entirely problematical. Fluorspar, deposits of which occur in the region, was used for beads and pendants, sometimes carved with a high degree of skill. In this connection it may be worth while to mention the small head in this material found at Moundville, which may very likely have been a trade piece from this region.

Conclusions on stone work: Our survey of Mississippi cultures up to this point has produced a general impression with regard to stone materials, in which such familiar traits as the triangular point, polished celt and chipped agricultural implements play an important role, whereas the grooved ax and the various problematical forms are equally important on the negative side. Here in Cumberland, there is a satisfactory persistence of the negative traits just mentioned, and the agricultural tools are duly present, but neither triangular points nor the polished celts maintain their importance. The seeming scarcity of small

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(1) Moore, 1905, Fig. 46, p. 165.
points of any kind is in itself an important departure from what we have come to regard as the Mississippi norm. The polished celt, on the other hand, though present in the smaller sizes, is overshadowed by the chipped or partly polished flint celt, which is rare, if present at all, in the Mississippi cultures so far studied. So far as these standard implements are concerned, then, the Cumberland falls short of expectations. Perhaps even more significant of non-adherence to Mississippi expectations, however, are the considerable number of traits in both chipped and polished stone that appear here for the first time (though some of them might also have appeared at Cahokia with more evidence). Such are the "sword", "mace" and eccentric forms in chipped flint, the spatulate celt (foreshadowed at Cahokia) and monolithic ax, small human effigy pipes and larger images or idols. The relationships of these objects, largely ceremonial be it noted, are with manifestations some of which can only very loosely be regarded as Mississippian. I refer to the great sites of Etowah, Moundville and Spiro. We may hope that additional light on this seemingly anomalous situation will be forthcoming upon consideration of other categories of material.

Bone: Between the "bone-age" Fort Ancient culture and the Cumberland are many evidences of relationship, sometimes of a rather specific nature. However, in the Cumberland, bone seems
to play a minor role. Doubtless the apparent unimportance of the material is merely the result of incomplete information. In any case artifacts of bone are present in small quantity in the Museum collections and are mentioned only sporadically in the literary sources. The commonest implements, as in Fort Ancient, seem to have been awls and perforators of various sorts. Larger implements, such as scrapers, beaming tools, hoes, etc. are not in evidence. Possibly this circumstance is not unconnected with the presence of various types of large flint implements which the Fort Ancient people were without. We often lay stress on cultural differences of this sort, which may actually be due to nothing more than the presence or absence of certain materials. The same explanation may be invoked to account for the scarcity of antler arrow points. The absence of other characteristic Fort Ancient traits is not so easily explained, such as fish-hooks, harpoons, antler flakers, combs, etc. On the other hand, worked astragali, probably used as dice, seem to have been fairly common. One must also mention certain long bodkin-like objects with spatulate heads carved into decorative shapes and probably used as hair ornaments.

(1) For example two peoples may possess a complicated method of dressing skins, in which the various processes are performed in identical fashion, except that at a certain stage the women of the first group employ a scraper made from the scapula of an elk, those of the second substitute a tool of flint. Ethnologically, the two peoples possess an identical trait complex; archaeologically, there is no relation whatever between them.
Here, workmanship in bone reaches a very high level. A single napkin-ring type of ear-plug in the Peabody Museum collection testifies to the same high ability. If the Cumberland people seem on the whole to have made relatively little use of the material, it was certainly not owing to lack of skill in its working.

Work in Shell: Sufficient evidence has already appeared to indicate the importance of shell in Mississippi cultures. In Tennessee, however, we enter a region in which the evidence, though abundant, is not unambiguous. As to the abundance, there can be no question, it is evident from the most superficial survey. The ambiguity derives from the fact that certain sites in east Tennessee, which may or may not be Mississippi in type, seem to be more prolific of shell materials than the unquestioned Mississippi sites of the Cumberland. The actual affiliations of these east Tennessee sites is, fortunately, outside the scope of the present study. It is merely intended here to insert a caution against the

(1) W. H. Holmes, pioneer in this, as well as so many other aspects of North American archaeology, has called Tennessee a "great storehouse" of shell materials (quoted by Thruston, 1897, p. 310). Certainly a very large proportion of the materials presented in his "Art in Shell of the Ancient Americans" (BAE 2nd Ann. Rep. 1880-81) are from this state.

(2) The publication of Dr. Webb’s Norris Basin report promised to throw light on this question. Its appearance, since the above was written, has lifted very little of the uncertainty. It shows merely how complex the subject is, and, while presenting indications that certain sites are affiliated with Mississippi cultures further to the west and south, fails (or rather does not attempt) to establish a definite connection. (Webb, 1938, pp. 378-382.)

Still more recently, the distribution in mimeograph of a preliminary report on excavations by the T.V.A. in the Chickamauga Basin in East Tennessee (Fairbanks, 1938) has made it clear that
too ready assumption, because so much of the evidence hereafter presented points that way, that the use of shell is a Mississippi monopoly. If these east Tennessee manifestations should ultimately prove to be non-Mississippi in type, the importance of shell working as a Mississippi determinant would be considerably weakened.

Elsewhere I have called attention to the circumstance that, archaeologically speaking, shell materials derive almost entirely from graves. An abundance of shell in the Cumberland is, therefore, to be expected. Commonest, of course, are beads of many types, of both modified and unmodified shells, disk-shaped, barrel-shaped, with a new type which I shall call "hour-glass" (Fig. 31), together with various types of simple pendants. Ear bobs or "pins" of both standard types (Fig. 72) have been reported, but rarely. They do not appear in the Putnam-Curtis collection. Fresh water pearls are similarly rare, apparently.

Shell spoons with worked handles made from various species of Unionidae are especially characteristic of the Cumberland culture, must not, however, be unduly stressed because of their wide distribution outside the area. We have encountered them in sites as remote as Madisonville and Aztlan. Quite evidently the trait is not eligible as a determinant for any particular

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not only are Middle Mississippi manifestations present in the area in question, but that some of them are very closely related to the Cumberland. Whether the abundance of shellwork in East Tennessee generally is directly attributable to the presence of these Middle Mississippi cultures is another question.
Fig. 31. Hour-glass beads in pottery, shell and stone, Cumberland culture. Scale 1:1. (Putnam-Curtis Collection, Peabody Museum).

manifestation of Mississippi culture, nor even any particular (1) phase of it.

Large containers or "cups", made from the Busycon perver-
sum or related species of marine univalve occur in the Cumber-
land, but rarely. I have already registered disappointment at
not finding this trait more in evidence in the various Missis-
sippi manifestations so far investigated. It seemed to be

(1) Their occurrence at Aztlan is not necessarily due to its
being a Middle Mississippi outlier. Evidently the trait is
common in that part of Wisconsin. Herbert W. Kuhm, in a
recent paper on the uses of shell in this general region,
writes: "Shown also are tanged spoons of shell, those from
the Lake Winnebago focus being notched varieties, while those
from the Grand River focus remain unnotched. They are worked
Unio shells, each spoon being equipped with a spatulate tang
whereby it was attached to a handle. In instances the tangs
were notched, probably as an element of decoration. Spoons
of this type are characteristic for all Upper Mississippi cul-
ture sites in the eastern half of Wisconsin, but are unknown
for the Mississippi Uplands area. (Kuhm, 1937, p. 4).
absent in Iroquois and Fort Ancient. Its failure to appear at Aztlan was explained away by the small number of burials and consequent general lack of shell at that site. The Dickson mound, on the other hand, produced a tremendous amount of shell, but only one shell cup. In the fairly extensive literature on the Cumberland, not more than a half-dozen occurrences were noted. Casual perusal of Holmes's early, but not yet superseded report, gives one the impression that this apparent rate of incidence would be exceeded in many other sections such as East Tennessee, Georgia, Florida and perhaps the Hopewell in southern Ohio. In other words the shell cup, by itself, does not seem to be sufficiently Mississippian to take its place among the determinants for that culture. It seems, rather, to be a general Southeastern trait, "with its greatest occurrence, as we might expect, nearest the source of supply, on the south Atlantic and Gulf coasts, its distribution radiating out from these coastal regions and cutting pretty well (1) across any presumed cultural boundaries.

(1) Availability of raw materials may, however, be only part of the explanation. According to Lovén (1935, p. 11) the primitive Siboneyan culture of western Cuba was a veritable shell culture "not alone because the ax-blades are made of shell, but by the fact that their vessels were made of the same material. Only in exceptional cases have they secured pottery vessels from the Cuban Tainos." In other words, Lovén feels justified in considering that the use of shell containers preceded the knowledge of pottery in this part of the Antilles. Furthermore he considers (on evidence which I am not competent to review) that the Siboney culture derived from Florida. By extension, therefore, it would appear that possibly the use of shell also preceded pottery in the Southeast. Then, of course, one may ask, "How is it that shell containers continued so long in use after pottery had come in?" The answer "Ceremonialism", inevitable in all such questions, can here be made, I think, with good effect. Shell containers are almost invariably found under circumstances that suggest religious or social significance. This is probably likewise the explanation of the fact that they are sometimes imitated in pottery.
There is, of course, the possibility not to be overlooked, that engraved decoration of shell containers may have some significance, may actually be a Mississippi, or even a Middle Mississippi trait. Offhand its association seems generally with sites that are either outright Mississippi, such as those in the general region of eastern Arkansas, or sites that have possible Mississippi affiliations, such as Spiro in Oklahoma, Etowah in Georgia. Note, however, the wide geographical spread between these two last-named sites, which between them have produced probably more than half of the carved shells in existence. Evidently the subject requires a great deal more knowledge and study than I am able to bring to bear at the present time. Furthermore a consideration of engraved shell must begin with the so-called gorgets, which because of their greater frequency of occurrence and wider distribution would seem to be the more fundamental use of the medium.

**Engraved shell gorgets:** I make no apology for failing to come to terms with the problem of the shell gorget and its distribution, yet, for the purpose of the most superficial evaluation of its importance in the Cumberland and other regions to come, it

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(1) It seems a noteworthy circumstance in this connection that in Hopewell, which culture produces shell containers in considerable abundance, there is little if any engraving on shell, notwithstanding the fact that engraving on bone is one of the most highly developed traits of the culture.
is necessary to get hold of some faint perception of the general outlines of the problem. Any real approach to the subject would entail a good deal of preliminary definition and classification. The gorget, of course, belongs to a larger class of objects, generally referred to as "pendants". Any study of the trait that failed to take this into account is lamed from the start. Next there is the question of the undecorated gorget, which may actually, I suppose, have borne decorations in paint or some other medium. Plain gorgets, centrally perforated, or with marginal perforations, have an immense distribution, one which must perforce bear some relationship to the more restricted distribution of engraved forms.

Notwithstanding these obvious considerations it has been the engraved gorget alone that has received attention, though to be sure not very much attention. Holmes, in the pioneer work on shell, already cited, essayed a classification, which

(1) It was Thruston, I believe, who first made this suggestion (1897, p. 324). Painting on vessels of shell is known in at least one instance (Jones, 1876, p. 59).

(2) The distribution of plain gorgets, particularly the type with a central perforation, apparently cuts across presumed cultural boundaries with the greatest of ease. A prominent Fort Ancient trait (vide p. 32), it is apparently no less at home in the Hopewell (Mills, 1926, Fig. 80). Its distribution in the East is from New England (Willoughby, 1935, p. 267) to Florida (Moore, 1900, Figs. 15, 16). Its western distribution I know nothing about; one has the impression that it is not as much in evidence west of the Mississippi.
so far as I know has not been superseded, though various amend-
ations have been suggested from time to time, notably by MacCurdy,
(1) Harrington, Lilly and others.

Classification problems: Holmes's classification runs as
follows: Cross, Scalloped Disk, Bird, Spider, Serpent, Human
(4) Face, Human Figure. A very hasty survey of the chief literary
(5) sources (most of which were, of course, not available to Holmes)

(1) MacCurdy, 1917.
(2) Harrington, 1922.
(3) Lilly, 1937.
(4) Holmes, 1883, p. 268.

(5) Brown, 1926, Fig. 248.
    Claflin, 1931, Pl. 44.
    Harrington, 1922, Pl. LXXXI.
    Holmes, 1883, Pls. LI-LXXV.
    Holmes, 1903, Pl. XXIX.
    Jones, C. C., 1873, Pl. XXX.
    Jones, J., 1876, Figs. 7-8.
    Lilly, 1937, p. 226.
    MacCurdy, 1913, Figs. 62-77.
    MacCurdy, 1917, Figs. 5-13, Pls. III, V.
    Moore, 1897, Figs. 17-19, 41.
    Moore, 1899, Figs. 53-56a.
    Moore, 1905, Figs. 149, 163.
    Moore, 1907, Figs. 94-98.
    Moore, 1912, Figs. 94-95.
    Moore, 1915, Figs. 55, 60, 74.
    Moorehead, 1910, II: Figs. 523, 527, 530-535.
    Myer, 1917, Fig. 4, Pl. VII.
    Putnam, 1880, Fig. 3, 5.
    Shetrone, 1931, Fig. 222.
    Thruston, 1897, Figs. 229-251, Pls. XVI-XVIII
    Webb & Funkhouser, 1929, Fig. 15.
    Young, 1910, pp. 230-241.
in search of "type specimens" for illustration, showed at once the unsatisfactory nature of the classification. Certain of Holmes's categories, the Scalloped Disk, for example, appear to be types in the strict meaning of the term, others, notably the Cross, are nothing more than broad classes made up of distinct types whose only relationship to each other is that their design in some fashion represents a cross or related figure. MacCurdy has suggested that the category Human Face be eliminated, as applying to something not really a gorget at all, but more properly considered as a mask. I do not propose to set up a new classification, but it seems obvious that in order to deal with the subject at all, one has to distinguish between broad classes held together by some arbitrary and perhaps superficial characteristic on the one hand, and specific types that are culturally significant (or may be presumed to be) on the other. Therefore, henceforth, in dealing with engraved shell gorgets

(1) The fact that in this category we are dealing with a number of types not necessarily closely related is brought out by the wide distribution, from eastern Georgia to western Arkansas.

(2) MacCurdy, 1913, p. 396. A suggestion that I have already followed without knowing it had been made. To be sure, in some cases, as MacCurdy points out, these so-called masks are perforated marginally and probably used as gorgets, nevertheless the great majority are unperforated and their size and shape, it seems to me, makes it necessary to consider them apart from the gorget.
I shall consider them under the following heads:

Class: **Concentric Motives:** The sort of thing generally referred to as "cosmic symbols". This class includes the cross in all its various forms, the guilloche, swastika, etc. It includes, I think, the very well-defined type called "scalloped disk" by Holmes, the "Nashville type" by others, as well as other types exhibiting concentric or rayed motives. It also includes the no less distinctive "woodpecker type" (Holmes's Bird). Finally there is a type of square gorget, generally having a cross or some sort of medallion at the center, which though not always strictly concentric in its lay-out, nevertheless seems to fit into this class better than any other.

Type: **The Spider:** Perhaps belongs in the class above, but the design is, of course, not concentric. Spider gorgets are evidently rare and somewhat limited in distribution, and so far as I can discover apparently fall into a single type.

Type: **Rattlesnake:** There seems to be no occasion for postulating a serpent class, because all the gorgets showing ophidian characters seems to fall into a single well-defined and appropriately

(1) MacCurdy (1917, p. 30-31) attempted to show that the scalloped disk is in reality nothing more than a conventionalized rattlesnake type. Somehow the intermediate examples he shows are not particularly convincing. They could perhaps as well be explained as the result of degenerative convergence rather than evolution.

(2) The type is plainly at home in southeastern Missouri and adjacent portions of Illinois, will be discussed at greater length in the section dealing with that area.
designated "rattlesnake" type.

Class: **Bi-lateral Motives:** As a "class" this group is admittedly weak. The only design that occurs with sufficient frequency to constitute a "type" is one in which two birds face each other on either side of a longitudinal axis. Moorehead found a number of these gorgets at Etowah and they have also been reported from the Cumberland. The term "Etowah type" might be apposite, but I am saving it for another more interesting series. Also exhibiting a bi-lateral symmetry, but different in other respects, is the "fighting warriors" gorget from Sevierville, East Tennessee.

Class: **Naturalistic Motives:** "Free-style" might perhaps be a better term. Actually the designs are not naturalistic or representational in the true sense of these terms. They are quite plainly dictated by a rigid ceremonial or religious tradition. For the most part designs are anthropomorphic, representing human figures, personages or deities in ritual guise. Animal and bird attributes are often present. In spite of the comparative scarcity of these interesting gorgets, it is possible to recognize several distinct types. These will be discussed later. It is, of course, this class of gorgets that bears the closest relationship to the engraving upon shell vessels and whole shells, as well as designs in repousse copper.

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(1) The rattlesnake identification was first pointed out by Professor Wyman (5th Ann. Rep. P. M., 1872) and has not since been questioned. In giving the term "serpent" to this type, Holmes evidently was allowing for the possibility that other variants, not necessarily based on the rattlesnake, might arise. So far as I know this has not been the case.
The "Nashville type": Turning now to the shell gorget in the Cumberland, we find most of these groups represented. Outstanding in the class exhibiting concentric designs is the scalloped disk type. Its center of occurrence is so plainly in the Nashville district, that the term "Nashville type" seems not only admissible but particularly appropriate, I shall therefore use it henceforth. Examples of the type may be seen in Figs. 32 and 33. Of all gorget types this one runs truest to form.

We have no less than fifteen of them in the Museum, all taken from stone graves in the immediate vicinity of Nashville, and from the same sites that furnished the particular specialized pottery traits diagnostic of the Cumberland culture. One has no hesitation in regarding it as a specific determinant for the culture.

Owing, perhaps, to its rather surprising degree of uniformity, this type has been made the subject of considerable speculation as to its origin and meaning. I have already referred to MacCurdy's theory that it is nothing more than a highly conventionalized form of the rattlesnake type of gorget, a theory which cannot be passed over in silence for the following reason. The rattlesnake type has a wide distribution but is most at home in East Tennessee and northern Georgia. If the Nashville type is nothing more than a conventionalized rattlesnake, its derivation from East Tennessee is indicated. In a general way, I think, the probabilities are entirely in favor of such a derivation, but the evidence in this
Fig. 32. Engraved shell gorget, "Nashville type", Cumberland culture. Scale 1:1. (Holmes, 1883, Pl. LV).

particular case is far from convincing. Several fully developed Nashville gorgets have turned up in East Tennessee sites, a circumstance of no particular significance as they might have been introduced in trade. In addition to these, MacCurdy presents a number of crude examples, one of which shows the incorporation of very much broken-down rattlesnake (1) elements. With this single supposedly intermediate specimen

(1) MacCurdy, 1917, Fig. 11.
MacCurdy attempts to build an evolutionary sequence, rattlesnake to scalloped disk. He does not consider the possibility of degenerative convergence which would explain the evidence just as satisfactorily, if not more so. Therefore, though one cannot deny the likelihood of some ultimate relationship between these two gorget types, one certainly must demand more conclusive evidence before accepting MacCurdy's facile explanation of its nature.

The older interpretation of Holmes and Thruston may still be the correct one, namely that the scalloped disk represents a time symbol analogous to the calendrical wheel of the Mexicans. The analogy, however, cannot be pushed...
very far.

The distribution of the Nashville type makes it clear that we are dealing with a specific localized phenomenon centering in the Nashville district, extending from there northward down the Cumberland into western Kentucky. Whether it reaches the Ohio, as do so many Cumberland traits, is not brought out in the published evidence. Its absence at Tolu would suggest a negative answer. One or two occurrences have been reported from sites on the lower Tennessee river and it is likewise known to occur further up in East Tennessee, but rarely in its fully developed form. The few examples encountered, with one exception, show signs of degeneration (though one is at liberty to

(1) Holmes, 1883, p. 275.
Thruston, 1897, p. 326.
An interpretation fostered by the frequency with which the outer bosses of the disk are said to number thirteen. Thruston writes: "The circles on the rim nearly always number thirteen, and are of uniform size. Occasionally one is found . . . with fourteen circles" (op. cit., p. 326). This statement is not borne out by examples in the Museum collection. In fifteen specimens examined the number of bosses was as follows:

12 -- 1
13 -- 6
14 -- 5
15 -- 0
16 -- 1
17 -- 1
18 -- 1
\[ 15 \]

Even supposing that 13 was the number aimed at (and often narrowly missed), the fact that the central whorl is almost invariably a "triskele", that is to say three-part rather than four-part, militates against any close relationship with the Middle American calendar system.
interpret them as evolutionary, as MacCurdy has done). One
single example from southwestern Arkansas on the Red river
appears to disturb our complacency. The resemblance to the
Nashville type is unmistakable. However, one must bear in mind
the fact that the whirling swastika is a common motive in Red
River design, so the resemblance may be merely fortuitous. The
type is notably absent at Etowah and Moundville.

The Nashville type, then, by its very nature, backed up by
its distribution, is an extremely useful diagnostic for the
Cumberland culture. It may be regarded as the end product of a
specialized development, which betrays very little of its earlier
stages and gives no hint of its origin. Except in the direction
of East Tennessee the evidence of relationship with other areas
furnished by it is practically negligible.

The Woodpecker type: Another gorget characterized by a concentric
design, but otherwise entirely different from the one just con-
sidered, is the so-called "woodpecker type", of which an example
is shown in Fig. 34. No less definitely a "type" than the
scalloped disk, it is, however, far less common apparently. The
majority of its few recorded occurrences are in the Nashville
district. Whether or not one is justified in regarding it as a

(1) Moore, 1912, Fig. 94.
Fig. 34. Engraved shell gorget, "woodpecker" type, Cumberland culture. Scale 1:1. (Holmes, 1883, Pl. LVIII).

Cumberland type, at least one can say that at present no other (1) center of distribution is indicated. Because of its rarity, not much, if anything, can be said of it as an evidence of cultural relationship. One cannot fail to note, however, the close resemblance in style, particularly in the treatment of

(1) Of the three recorded instances outside the Cumberland, one is simply "from Mississippi", which may mean anything, another from Wayne county, Tennessee (not far from the Tennessee river at the point where it leaves Tennessee), the third from a site in northeastern Alabama on the Tennessee river not far below Chattanooga.
the bird heads, to bird representations in the incised pottery
(1) of Moundville. Going further one may call attention to the
common decorative device in Moundville pottery consisting of
a set of parallel lines running around the vessel and looping
four times in the course of the circuit (Fig. 35). This is
precisely the same motive as the looped square of the wood-
pecker gorgets, only applied to a different purpose and

Fig. 35. Vessel showing "looped square" design, Moundville.
(Moore, 1905, Fig. 73).

(2) modified accordingly. Therefore, if this be a Cumberland type,

(1) Somewhat more carefully and realistically presented, the
Moundville birds have been identified as the ivory-billed
woodpecker. The term "woodpecker type" is therefore appro-
priate enough.

(2) This looped square is of considerable interest. Holmes
(1883, p. 285) pointed out that a similar motive occurs several
times in the Mexican manuscripts, and that in each case a cross
occupied the enclosed area. He figured one example from the
Vienna codex (Fig. 5, Pl. LIX) in which the resemblance is cer-
tainly very striking. The circumstance that these gorgets have
analogies with Moundville and at the same time with Mexico is not
surprising, since it is at Moundville that Mexican features in
general are most clearly exemplified.
as present evidence indicates, it points to a fairly close con-
(1)
nection with Moundville.

The two types already discussed are perhaps the only ones
belonging to the concentric class that can with any degree of
certainty be considered as Cumberland types. A few simple
(2)
cruciform gorgets have been reported but without a sufficient
degree of uniformity to be characterized as a type. The same
(3)
may be said of the occasional appearance of square gorgets.

(1) One would, of course, like to know whether woodpecker gorgets
have turned up at Moundville. Their absence in Moore's reports
need not be taken as conclusive.

Another aspect of this type of gorget that might be of in-
terest is the extent to which they depart from the usual rule
that the engraving is on the concave surface of the shell. In
several instances it is pointed out that the carving is on the
convex surface, and in all cases not specifically referred to,
the illustrations look as if such were the fact. Thruston makes
a statement on this point, emphasized by italics, to the effect
that designs "always appear on the concave side of this disk"
(1897, p. 328). One feels sure he intended to say "convex",
otherwise there would surely have been no occasion for italics.

(2) Most of the gorgets based on the cross and related forms are
either from East Tennessee or from southeastern Missouri and ad-
jacent portions of Illinois. Evidently the motive is not common
in the Cumberland, owing perhaps to the dominance of specialized
types such as the woodpecker and scalloped disk. However, in view
of its distribution on opposite sides of the area, bracketing it
so to speak, one would hesitate to attach any great importance to
the apparent lack.

The cross illustrated by Thruston (1897, Fig. 232) is pre-
cisely similar to a copper disk figured by Holmes (1883, Pl. LII:4)
from "one of the Ohio mounds". Generally this phrase "Ohio mounds"
means Hopewell. If so, we have here a precise correspondence be-
tween Cumberland and Hopewell, worth mentioning only because such
correspondences are extremely rare.

(3) One square gorget from Castalian Springs, figured by Myer
(1917), is of interest because of its evident relationship to a
bi-lateral type from Etowah (Moorehead, 1932, Fig. 32). The accu-
mulation of specific analogies between the Cumberland and Etowah,
on the one hand, and the Cumberland and Moundville, on the other,
is extremely interesting.
The Spider type: No less well-defined than other types already described is the spider, an example of which is shown in a later section (Fig. 57). Like the woodpecker its rarity makes it ill-suited for purposes of culture determination. The limited evidence (not more than a half dozen occurrences all told) points to the New Madrid section rather than the Cumberland as the center of distribution. I shall, therefore, refer to the type in greater detail in the section devoted to that region. Only one example is recorded from the Cumberland, and that of some-

(1) what doubtful association. On the other hand the spider occurs (2) (3) at Etowah and in East Tennessee though in somewhat different guise.

Rattlesnake type: The rattlesnake is perhaps the best-known and certainly the commonest type of engraved shell gorget in the Southeast generally. It has a wide distribution, but one which is not, I believe, coextensive with that of the other types already considered. The center of greatest frequency of occurrence is unquestionably East Tennessee, northern Georgia and, very likely, contiguous portions of the Carolinas. It has been known

(1) Young, 1910, Pl. on p. 230.
(2) Moorehead, 1932, Fig. 32b.
(3) Holmes, 1883.
to occur in regions occupied by Middle Mississippi cultures, as in the Cumberland, western Kentucky, Indiana. Against these occasional sporadic occurrences in the Middle Mississippi region, it would be possible to assemble evidence of several hundred finds in the South Appalachian region. Furthermore, it would be possible to show, I believe, that the rattlesnake gorget is a late trait in this region of greatest occurrence. It then becomes an important question as to how closely it is associated with other

\[ \text{(1) Thruston, 1897, p. 331.} \]
\[ \text{Young, 1910, p. 238.} \]
\[ \text{Lilly, 1937, p. 226.} \]

\[ \text{(2) At Pine Island, Marshall county, Alabama, Moore found a crude but perfectly typical rattlesnake gorget in a burial, immediately adjoining which another similar burial yielded a celt of iron or steel and a tomahawk of the same material. Another grave on the same site contained a quantity of glass beads. (Moore, 1915, p. 306). I have no doubt that other similar occurrences in association with European trade material could be cited.} \]

Harrington believes they were worn, if not made, by the Cherokee. "Whatever other people or peoples may also have used the triskel, mask and rattlesnake type of shell gorgets, the writer is convinced that the Cherokee owned and wore many of them, whether they actually made them or not. His reason for this belief lies in the fact that not only were they discovered in Cherokee graves by Messrs. Barnes and Benham but that Mr. Moore found them associated with a series of artifacts, which the writer from his own studies considers typically Cherokee, on a site near Citico Creek in the vicinity of Chattanooga; and MacCurdy reports them so associated at the Brakebill mound near Knoxville." (Harrington, 1922, p. 252-3).
gorget types that seem to be affiliated with Middle Mississippi culture. MacCurdy's theory of the derivation of the Nashville type from the rattlesnake has been discounted. Nevertheless, it must be admitted that the association of elements from both types on a single gorget argues for a general contemporaneity. In more general terms, the similarity of the rattlesnake motive to representations on Moundville pottery, the upturned snout and prominent canines that bespeak relationship to the general serpent-cat concept of the Middle Mississippi, all these features make it difficult to separate the rattlesnake from what appears to be more authentic Middle Mississippi types except typologically.

The conclusion, for the general purposes of this study are not insignificant: first, that the engraved shell gorget must not (1) be considered as an exclusive Middle Mississippi trait; second, that it bears strong evidence of a late prehistoric or protohistoric date.

Of bi-laterally similar types there are, so far as I have been able to discover, no examples emanating from the Cumberland. The best exemplars of this class, perhaps the only ones (in which case the class becomes a type) are the bird gorgets from (2) Etowah, a number of which are figured by Moorehead. For our

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(1) Since the above was written evidence has been published (Webb, 1938, Fairbanks, 1939) indicating clearly the presence of a Middle Mississippi type of culture in eastern Tennessee. The conclusion adumbrated above, that the engraved shell gorget is not confined to the Middle Mississippi, is therefore no longer tenable.

(2) Moorehead, 1932, fig. 32.
present purpose a discussion of this type is not in view.

Naturalistic types: This brings us to the last and most interesting class of gorgets, namely, that characterized by the use of naturalistic or semi-naturalistic motives in a somewhat freer style of drawing, a class in which is found some of the best products of the artistic capabilities of the mound-building (1) Indians. They compare very closely with engraved designs on whole shells, such as the famous examples from Spiro, Oklahoma. Any real attempt to deal with these gorgets, therefore, would necessarily consider them in relation to these other forms. In short what is called for is a comprehensive study of shell carving as an art form. To which the next step would be a consideration of shell carving in relation to incised pottery decoration and repoussé copper. Unfortunately such is outside the scope of the present study. Here we are concerned merely with the shell gorget as a Cumberland trait, and the evidence which it may or may not offer of relationships elsewhere.

Only two examples that fall within this category have been reported from the Cumberland area, and only one of these was found under circumstances that indicate direct association with the culture we have been designating as Cumberland. These excellent specimens may be seen in Fig. 36. The first was found

(1) Since writing the above a paper by Frederick Starr has come to my notice, in which is a resume of the then existing examples of human figure gorgets in the Southeast. These are described in a manner suggestive of classification, but without, it seems to me, contributing anything of great value from the classificatory point of view. I shall, therefore, not apologize for not making use of it. (See Starr, "A shell gorget from Mexico", Proc. Dev. Acad. Sci., vol. VI, p. 174-75).
Fig. 36. Engraved shell gorgets, naturalistic designs, Cumberland culture. Scale 1:1. (a, Holmes, 1903; b, Thruston, 1897, Fig. 247).
on the lower Cumberland river at a place called Eddyville, in Lyon county, Kentucky. It appeared in a cemetery whose excavation was incidental to some sort of quarrying operations, so that no satisfactory data on its associations were obtained. In recording the site and this find in their survey of Kentucky archaeology, Messers Webb and Funkhouser give the impression, without explicitly stating as a fact, that the site is a typical Cumberland site. For the second we are in somewhat better case. It was found by W. E. Myer in a stone grave mound at Castalian Springs, a site in Sumner county, Tennessee, not far from the Cumberland river some distance above Nashville. The site has yielded abundant materials of the typical Cumberland culture, so there can be no doubt whatever of the association of this gorget with the culture in question. Such being the case, it seems safe to assume that the Eddyville specimen belongs to the same culture, since the two objects are stylistically so closely connected.

(1) Webb & Funkhouser, 1932, p. 247. "Archaeologically Lyon county shows the typical material of the well recognized Cumberland River Valley culture but does not show a large number of sites now recognizable. Much excellent material has come from the county but a considerable amount of it represents scattered and superficial finds. The only important sites to be reported are as follows:" (Immediately follows a description of the Eddyville site.)

(2) Myer, 1917, p. 100. Moreover, in the same grave were four other gorgets, two of the woodpecker type, two of a variant Nashville type already discussed (See Fig. 33).

Another, and entirely different type of human representation, which might be styled "embryonic" or "larva-like" or by some other such qualifier, is not found in the Cumberland, consequently may be dismissed briefly. In this type the depiction of a human figure is either so undeveloped, or so far gone in conventionalization (degeneration is perhaps more appropriate) that it is scarcely
It may seem ridiculous to speak of a type, which is represented by only two specimens. On the other hand, so close is their stylistic affinity that it becomes desirable to treat them as one. The Eddyville specimen is better known, but that from Castalian Springs is better documented. Therefore the name Castalian type seems to be in order. Henceforth, purely as a matter of convenience I shall refer to them under that designation.

One's first thought on regarding these specimens is "Etowah". On looking at the Etowah material, however, one is surprised that the closest correspondences are not with the Etowah gorgets of which a typical example is shown in Fig. 37, but with the famous repousse copper plates (Figs. 76 - 78). One may see at a glance the stylistic affinities between the Castalian gorgets and the Etowah copper. It is scarcely necessary to point out the detailed correspondences, the curious vane-like headdress, the waistband with pendant pouch or "brush", recognizable as such. This type has, I believe, a more easterly distribution, though I should not care to insist on this point. Because of its non-appearance in the Cumberland I have not given the matter sufficient attention. The point here is that it is certainly stylistically far removed from the sort of thing found in the Cumberland. That this divergence seems to be paralleled by the factor of distribution is a matter of some comfort. The type is not without interest, however. In spite of its broken-down degenerate condition it still often looks more Mexican (Huastec) than any other type in the Southeast.
the mace in one hand, severed head in the other. More significant perhaps is the similarity in style of drawing and presentation of the human figure, the position of the legs suggesting movement as in the dance. One is justified in stressing the naturalistic side of these representations,

![Engraved shell gorget, Etowah type. Scale 1:1.](Moorehead, 1932, Fig. 29).

I believe. It is not nearly so evident in the Etowah gorgets. These are in all cases less freely depicted, less human. There is an hieratic suggestion in the rigid pose, in the theriomorphic attributes, the arms and legs terminating in monstrous claws, the curious serpentine appendages, the ever-present eagle wings. The Etowah designs are not entirely free
from the canon of bi-lateral symmetry. This is strikingly
brought out in the famous fighting figure gorget from Sevierville,
(1)
East Tennessee. This is unquestionably a gorget of the Etowah
type but shows a rigid conventionalization quite foreign to the
easy naturalness of the Castalian forms.

If one were allowed to speculate on entirely insufficient
evidence, it is as though the Etowah carvers of shell had allowed
their art to become circumscribed by the limitations of their
medium and the field to be covered, possibly also by the dom-
inance of a narrow tradition. Limitations which in the field
of copper working did not apparently to the same extent apply.
It is clearly to the less restricted tradition of the copper
workers that the shell gorgets of the Castalian type refer.
If it should develop that the differences between Etowah copper-
work and shell are due to time, such idle speculation might not
prove unfruitful.

In most cases in the Cumberland in which affinities with
Etowah were disclosed, similar affinities with Moundville were
also noted. The present is no exception. Moundville also pro-
duces naturalistic gorgets (Fig. 38). While not precisely simi-
lar to our Castalian type, the general stylistic affinity is
sufficient to indicate a common tradition. More powerful evi-
dence of close relationship, however, may be seen in a fragment
of a shell cup from the same site (Fig. 39).

(1) Holmes, 1883. Plate LXXIV.
Fig. 38. Engraved shell gorgets, Moundville. Scale 1:1. (a, Moore, 1907, Fig. 98; b, ibid., Fig. 97).
Fig. 39. Fragment of engraved shell, Moundville. Scale 1:1. (Moore, 1905, Fig. 34).
On the other side, that is to the north and west, analogous shell carving appears only in the New Madrid section of southeast Missouri, whence, as we shall see, have come several examples of this same free style that I have chosen to regard, with some qualifications, as naturalism. They will be dealt with more fully and illustrated passim (See Fig. 58). To which must be added the occasional examples of shell carving that have come from Arkansas and the very remarkable collection from Spiro, Oklahoma. These will be discussed, so far as I am able to do so, in due course. Here I shall anticipate only slightly by saying that all the evidence taken together indicates one of two things, either there was somewhere in the Southeast a center of intense development and a great and far-reaching trade out from that center, or there was a period in which a very large part of the Southeastern tribes was brought under the influence of a common religious and ceremonial tradition. As a matter of fact, since the art style is plainly a religious expression, the first perhaps presupposes the second. It is difficult to see how objects of religious significance can be disseminated among peoples who do not also share the religion they express. Furthermore, were it simply a matter of trade, one would expect to find greater similarities than actually obtain, and would be justified in expecting some indication of a center of distribution. The importance for our particular present
problem is obvious. We have in these few examples of naturalistic engraving alone, sufficient evidence that the Cumberland culture was linked in significant fashion with Etowah, with Moundville, with sites in southeastern Missouri, and even with a site as distant as Spiro in Oklahoma, in a manner suggestive of intimate contact. The implication of approximate contemporaneity logically follows. The only escape from this conclusion is to suppose that objects of esoteric significance can be diffused from tribe to tribe over an enormous extent of country through the ordinary channels of trade. I may as well admit that I have just stated here what is likely to become the theme song of this present undertaking. Far more interesting to me than problems of culture classification, which is, in the last analysis, cultural differentiation, is the problem of similarities in respect to objects that reveal common intellectual and aesthetic tradition in otherwise discrete cultures. The Cumberland is a different culture from that of Etowah, it is more different perhaps from that of Moundville, still more unlike that of Spiro, nevertheless in some way, which I should like very much to understand, all four manifestations reveal evidence of an adherence to a particular set of religious beliefs expressed in a particular style of art.

(1) I shall say nothing at this time of the very vexed question of the possible derivation of the art style discussed above from Mexico, a question that has been dealt with by several writers (Thruston, 1897; Starr, 1897; Holmes, 1904; Moorehead, 1932, etc.) without any conclusive results one way or the other. The difficulty, as usual in cases of analogy hunting, is that resemblances of too specific nature are sought, made too much of when found, their lack
**Engraving on whole shells:** Engraved decoration upon large marine univalves, or vessels made from them, is one of the most conspicuous features of the famous Spiro mound in Oklahoma. Unfortunately such finds have occurred only very rarely elsewhere. The Cumberland is no exception. The single occurrence to which I have been able to find reference was so poorly preserved as to offer very little evidence of relationship with (1) Spiro or any other culture. However, the close stylistic affinity between the Spiro shells and the naturalistic gorgets described above, makes it appear very likely that, with more evidence, decorated shells of the Spiro type will turn up.

**Copper:** The suggestion of anomaly with respect to the use of copper by Mississippi peoples was made in connection with Fort Ancient and repeated with emphasis in the Azlan section. The point of view was adopted, provisionally at least, that the use of copper for practicable implements simply was not in the Mississippi scheme of things. Subsequent information has only served to bear this out. Even the Cumberland, which enjoyed a

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too much deplored when not found. If a set of religious notions and an art style developed to carry them ever found its way from Mexico into the Mississippi valley, we must be very naive to expect a trail of precise reduplication from one end to the other. We must expect, it seems to me, correspondences less precise but more pervasive.

(1) Jones, 1876, Figs. 29-30.
fairly high level of culture, is no exception. I have been able to find only two recorded instances of finds of copper implements (celts) and in both there is more than a little uncertainty that the sites were actually Cumberland sites. Otherwise the same story everywhere, copper not uncommon, but invariably occurring in the form of sheet metal or overlay on objects of wood and other materials. In short, its use is purely decorative, or at least completely non-utilitarian.

Sheet copper occurs in various interesting guises. Small pendants, either with cruciform shape or embellished with crosses in repoussé are reported in two separate instances (Fig. 40). The larger type strongly recalls similar examples from Fort Ancient (Madisonville), at least one of which was executed in European metal (pp. 34-35), thereby raising the question of a possible late date. The smaller ones, on the other hand, resemble no less closely examples from Moundville. Any sort of argument based on single finds of this nature is, of course, absurd. The most that one can say is that an approximate

(1) It should be noted, however, that large copper celts (probably ceremonial) do appear in Etowah and Moundville. In view of the close connections of the Cumberland with these sites, an occasional copper celt would not be matter for surprise.

(2) Moore, 1905, Fig. 104, p. 197. Pendants of the same type from the Toasi cemetery in central Alabama are illustrated in "Arrow Points", vol. 2, no. 1, p. 19. The associations of the find, however, are not given.
Fig. 40. Copper crosses, Cumberland culture. Scale 2:3.
(a, Peabody Museum; b, Jones, 1876, Fig. 25).

general contemporaneity of the Cumberland and Moundville with the admittedly late site of Madisonville is indicated. It suggests that any effort to differentiate these various manifestations chronologically must be taken as dealing with relatively brief periods of time.

Circular copper plates with some sort of decoration, probably repoussé, have been reported. Somewhat similar

(1) Putnam, 1878, p. 343, "An ornament of very thin copper which was originally circular and with a corrugated surface. Only fragments of this could be preserved and its full size could not be determined, though it was probably 4 or 5 inches in diameter." Again p. 344, "Portions of an ornament, circular in shape and about 5 inches in diameter, made of two sheets of copper closely united, similar to that found in one of the oldest graves, and like that, also resting on the breast bone, which, with the ribs, had been discolored and preserved by the contact."
objects also occur at Moundville.

More common than objects of sheet copper was its use as overlay on objects, chiefly ear-spools, of wood, stone, bone and even tortoise shell. In some cases the workmanship shows a high degree of skill in handling the metal. In the Putnam-Curtis collection, for example, is a pair of imitation milkweed pods of wood partly preserved by their copper overlay. These were evidently made to open longitudinally disclosing an arrangement of tiny pebbles combined with some fibrous material laid in in such manner as to represent the seeds of the plant.

It is disappointing to find no specific references to repoussé decoration on copper, aside from the somewhat doubtful instance mentioned above. The small cross illustrated in Fig. 40b bears a very rude embossed decoration, and the similar crosses from Moundville referred to in that connection are decorated in a more advanced repoussé technique. Furthermore, considering the very close similarity of certain types of Cumberland shell carving to the repoussé plates of Etowah, it would be very surprising if the latter technique were not known to the Cumberland people also. It must be recalled that repoussé copper is extremely rare in any culture. It is nonetheless disappointing not to be able to associate with the carved shell of the Cumberland its usual concomitant—repoussé copper.

(1) Moore, 1905, Fig. 42, p. 164; Fig. 134, p. 216.
Miscellaneous: A number of miscellaneous materials may be mentioned briefly and our catalogue (excluding pottery) is complete. Mica occurs sparingly in very small cut-out plates, probably used decoratively in connection with some other material now disappeared. Cannel coal is found in various natural shapes but showing a high polish as if from prolonged handling. Possibly in some cases the objects were used as polishers. In a few cases artifacts, ear plugs, gorgets, etc., have been made of the material. Quartz crystals and cubes of galena are often found in graves in their natural state.

3. Cumberland pottery

In dealing with pottery I am, fortunately, not obliged to rely to the same extent on literary sources. The Museum has a large collection, chiefly in the form of whole vessels, some 250 in all, secured by Professor Putnam and his assistant Edward Curtis in the late seventies, mainly as the result of actual excavations, consequently for the most part fully documented and reliable. The amount of sherd material, however, is very small. Putnam's excavations seem to have been mainly concerned with burial sites, the resulting material is therefore heavily weighted on the mortuary side. Nevertheless the collections represent a fairly comprehensive body of material, which, supplemented by the not inconsiderable data available in various
published sources, ought to be sufficient for preliminary classification and description.

There is a difficulty, however, at the very outset. Putnam's material is all from stone grave sites, and there is nothing in his published accounts to suggest that it does not all belong to a single homogeneous culture. Nevertheless, a most superficial study of the pottery divides these sites into two quite clearly marked groups, with only one site showing a somewhat intermediate character. The division does not appear particularly to follow geographical lines, may therefore be a question of chronology. The latter suggestion seems to be borne out by typological considerations. If this were a McKern study, one would attempt to isolate two separate foci of the Cumberland Aspect. I shall not be so ambitious. Nevertheless for purposes of clarity in much that is to follow I shall have to make use of some sort of designations. Consequently I shall restrict the term "Cumberland" to the first and more typical of the two groups, using for the other a purely provisional term "Cumberland X", which I trust will not beg any questions. The ambiguity of the "X" is its chief recommendation.

Cumberland X is decidedly in the minority, particularly in the Nashville area, which is after all the main center of the Cumberland culture. I shall proceed therefore to a description of what I choose to regard as typical Cumberland pottery, following which a brief consideration of Cumberland "X" will perhaps
be necessary to show why the separation was made.

**Classification difficulties:** Classification of this pottery presents the usual difficulties. Before attempting to say anything about types, it may be well to describe the stuff briefly in somewhat more general terms. First, judging from the limited amount of sherd material, there is a coarse shell tempered drab-to-buff ware that runs to large sizes in a shape approximating the standard jar form that I have already said so much about. This is undoubtedly the basic utility ware, outnumbering all others. The same shape, however, with certain modifications to be described later, also appears in very much smaller sizes in a ware that is similarly tempered with coarse shell, but is harder and very much thinner. This, I think, may be nothing more than a mortuary version of the standard cooking jar. It seldom, if ever, shows any traces of having been used over a fire. This smaller cooking jar, which may never have been used for such terrestrial purposes, generally shows some traces of polish, in which case it approximates closely the next ware to be described. This is a polished drab ware, with finer paste and finish, generally darker in color, often indeed a lustrous black, in which case it qualifies, I suppose, as "smudged" ware. Most of the highly specialized and characteristic forms are in this ware.

Thus we have three general sorts of drab ware. Can they be classified as types? Only with the greatest difficulty. They
shade from one to another in the most disobligng fashion. If
they are distinct types, how shall we describe them? The difference
between the first and second may be only a difference in size.
Vessels intermediate in size, unfortunately such are not wanting,
show intermediate characters in paste and finish. The difference
between the first two and the third, however, is somewhat more
marked, at any rate, owing to radical differences in shape, it is
rather striking when viewing a collection of whole pots. Sorting
sherds, I am afraid, would be quite another matter.

So much for the drab wares. Strangely enough there is no
redware. Individual specimens of drab ware are often fired to a
bright orange pink, but in the collection before me there are no
(1) examples involving the use of a red slip.

Painted decoration is confined to a method which I have else-
where designated as lost color, in the belief that it is analogous

(1) That the lack may be a significant one is suggested by the
fact that in the Southwest, if we except the so-called "pseudo-
pottery" of Basket Maker II, it appears to be impossible to get
back to a stage prior to the development of red slipped ware. In
the earliest phase at Snaketown (Vahki) there is even a higher
percentage of redware than in succeeding periods. That is to say
with the rise of painted ware there is a corresponding decrease in
redware until it disappears entirely to reappear again in the
Sedentary period (Haury, Snaketown I, 1937, Fig. 107, p. 221). A
parallel situation is indicated for the Mogollon (Haury, 1936a,
pp. 41-43) and there are not wanting evidences for the same thing
in the Anasazi. In short, if redware is more fundamental than
painted wares in the Southwest, and if the Cumberland pottery com-
plex derives ultimately from the Southwest, the absence of redware
becomes a disturbing factor. If, on the other hand, lost color be
regarded as entirely distinct from ordinary painted wares, with a
separate history, the lack of redware in association with it is of
no importance. I shall return to this question later.
to the sort of pottery in Middle America to which that term has been applied. This type is undoubtedly rare, though in the present collection it is represented by 20 specimens, not including a few sherds. The normal practice, let us say the more frequent practice, involves the use of a thin black pigment on a chalky white slip. However, there are several cases where the pigment has been applied directly on a pinkish buff surface without the addition of a slip.

There remains but to mention salt-pan ware, which is present, but, owing to the paucity of sherds no doubt, not well represented.

From the foregoing brief analysis we may set up the following tentative classification:

Drab ware

1. Plain Drab
2. Thin Drab
3. Polished Drab

Lost Color ware

1. Black-on-buff
2. Black-on-white

"Salt-pan" ware

The doubtful member of the series is no. 2 of the first group, Thin Drab. It might equally well be considered as a sub-type of Plain Drab. Such a position, however, would tend to obscure its relationship with Polished Drab. In a sense it is intermediate. "Salt-pan" ware, as used above is a generic term. With sufficient sherd material it would doubtless be possible to distinguish
Fig. 41. Plain drab ware, Cumberland culture. (Putnam-Curtis Collection, Peabody Museum).

several types of salt-pan ware.

**Drab Wares: Plain Drab:** A small selection of sherds of this type may be seen in Fig. 41. How representative of the type as a whole this small sample is I have no means of judging. The ware is coarse, shell tempered, friable. Without any pretense to knowledge in such manners, it would seem to me that the stuff is over tempered, with a resulting laminated structure that fractures very easily. This is overcome somewhat by the thickness of the fabric, up to a half inch in some cases. Besides the tempering,
the clay is characterized by a high content of hemetic granules, which one assumes to be nothing more than natural inclusions in the clay. The color of the paste in section is about the same as the surface, and runs through various drabs and buffs to red. If one had to strike an average it would probably fall somewhere between Avellaneoous and Pinkish Cinnamon on the Ridgeway color scale. The surface might be described as roughly smoothed, with nothing describable as a polish in evidence. Cord-texturing appears to be absent.

One cannot say very much about shapes in Plain Drab on the basis of the actual material in hand, except that in a general way a "standard jar" form with handles and/or lugs is indicated. However, Myer found a great many sherds of this type in excavating house floors in the Gordon and Fewkes sites, from which he was able to reconstruct a number of vessel shapes, which he reproduces. A few of what seem to be the more typical of these are shown in Fig. 42. The sizes apparently run from about 9-10 inches diameter at the rim up to 16 or 18 inches, slightly less in depth. Sherds in the Museum collection run about the same. The largest shown in Fig. 41 would have a diameter of 16 inches.

The question of handles and lugs cannot be dealt with without more information. All of Myer's restorations show either handles or lugs (or neither), never both. By analogy with the smaller
jars (Thin Drab) one would expect to find, in some cases at least, both handles and lugs on the same vessel. Naturally one would have to have a very large sherd, or several sherds from the same vessel, to show this. Furthermore, one wonders about Myer's restorations that show neither handles nor lugs. Here, one would have to have at least half an entire rim to be sure that one or the other were not present. Jars without handles or lugs are rare in thin drab ware, possibly here also. Handles are all of the vertical loop type, ranging from those that are oval in section to very broad strap-like handles as shown in Fig. 41. The oval handles have a tendency to rise
above the rim, or to be embellished with protuberances that do so. I shall have more to say about this later, in discussing the smaller counterparts of these jar forms, where there is more information. Lugs are nothing more than a flange-like extension of the rim, either single or bifurcate. Examples of both types are shown in Fig. 42.

Decoration on these large jars, so far as the evidence goes, which it must be admitted is not very far, is almost non-existent. One sherd, from which Myer essayed a restoration shows a line of punctations, arcade fashion, possibly outlining a series of lobes, a sort of decoration very common in the smaller jars of similar shape.

Thin Drab: I have already indicated the difficulties in respect to this ware. Its recognition as a distinct type is frankly tentative, arises chiefly from inability to decide whether it should be considered as a variant of Plain Drab, on the one hand, or of Polished Drab on the other. The question would probably not have come up at all had I been dealing with sherds. This is one of the advantages (perhaps it is a disadvantage) of dealing with whole vessels. Certain factors of paste and surface, which seemed to distinguish this ware from its companions, were found to be closely correlated with certain distinct forms. Whether such a correlation is actually significant from a classificatory point

(1) Myer, 1928, Fig. 165.
of view, or simply arises from the fact that clay is handled in a certain way to produce a certain form, is always a difficult question, depending on the sort of characters that enter into the correlation. It may be well to elaborate this point a bit further, since we shall be continually faced with similar questions in a study that makes so much use of whole vessels as the present one. For example, let us take the matter of thinness, one of the chief distinguishing characteristics of the ware in question. Is thinness merely due to the fact that vessels are small, in other words to a proportionate reduction in all dimensions from the large vessels of the Plain Drab type? If so, obviously, it has no classificatory significance whatever. But various forms in Polished Drab are equally small, if not smaller, yet are evidently not so thin. Thus thinness may be significant in distinguishing this doubtful ware from Polished Drab all right, but no good as a distinguishing characteristic from Plain Drab. In the latter instance, it may be merely a size differential. In a similar manner all characters that seem diagnostic must be weighed against the possibility that they are merely inherent in technology, that is, merely functions of size or shape. These are problems that do not enter into the classification of sherds, because they cannot. They make a good deal of difficulty, but if dealt with conscientiously they undoubtedly make for a sounder classification in the end. After putting such questions and attempting to answer them I still feel
that Thin Drab deserves recognition as a type, at least for the
time being, with an intermediate position, as I have suggested,
between the more definitive Plain and Polished Drab types, some-
what closer perhaps to the first than to the second.

Thin Drab is characterized by a paste that is, on the whole,
considerably finer than that of Plain Drab, though the shell
tempering tends to be coarse and a good deal of it shows on the
surface. There is, perhaps, not quite so much tempering, and
possibly for that reason the fabric, in spite of its thinness,
appears harder and sounder in every way. The chief distinction
of the type is, of course, its thinness, which in some cases
approaches what must surely be the extreme limit of practicability.
There seems to be no apparent correlation between thinness and
size of temper, several coarse tempered specimens being the thinnest
in the entire collection. Furthermore, this type is generally
thinner than Polished Drab, which is chiefly distinguished by its
fine tempering.

In surface treatment this type is intermediate between its
companion types. A certain amount of polish seems to be the rule,
but you get nothing comparable to the high lustrous finish of most
of the Polished Drab specimens. The difference may actually be
one of firing. Polished Drab undoubtedly owes its lustre in most
cases to smothered firing, to which it also owes its dark color.
It is interesting that Thin Drab runs to the same pinkish and
rufous shades of buff that one finds immediately under the dark
slip-like surface of the polished ware. In short, were it not for the deposit of carbon obtained by smudging, it might be far more difficult to distinguish between Polished Drab and Thin Drab. There would still remain, however, such factors as coarser temper and thinner walls (not to mention vessel shapes) to differentiate the two types.

Plate I: The full range of shapes may be seen in Plate I. It is remarkably limited. So far as I can make out with the present sample, this simple globular jar with handles, which I have elsewhere referred to for convenience as the "standard Mississippi jar form", is the only shape that occurs in this ware. Handles tend to be very broad and flat, though examples are not wanting in which they approach a circular or oval cross-section. Alternating with handles quite commonly are very small, perhaps vestigial, lugs of the bifurcated type similar to those shown in Fig. 42b. The handles made up of two crossed elements (B4) are presumably an individual vagary.

Decoration, more often absent altogether, is rudimentary to a degree. A band of rude incised lines in criss-cross, or if the vessel is lobate or "melon-shaped", which is frequently the case, a band of parallel incised lines or rows of punctations, arcade-fashion, outlining the lobes. The type of incision is quite characteristic, being the sort of cut one would expect to result from using a sharp blade, rather than a pointed instrument, while the clay was still relatively wet. As we shall see there is evidence
of the use of some sort of blade in connection with the notched rims of certain polished drab bowls, so the point may be significant from the technological angle. This might also explain the extreme crudity of the decoration itself, a blade being obviously unsuited to the task in hand.

An interesting specialization seen in a large number of these vessels, is the application of conventionalized animal features according to a very definite and uniform scheme. A snout, balanced by a button-like protuberance, with eyes and ears between. These features are brought out clearly in Plate I, E4. Contrary to the great majority of zoomorphic forms in the Mississippi valley, the vessel is conceived, not as a complete effigy, but merely as a head. If so, one may ask, what is the button-like object opposite the head, if it is not a tail? I am inclined to think it is, or was, a tail, and that somehow in the process of conventionalization the present confusion came about. The fact that such confusion is possible is shown by one specimen, not illustrated, in which the eyes and ears have been interchanged, so that the thing makes no sense whatever. Without going into any complicated questions of naturalism vs. conventionalization, I think one may say at least that these interesting vessels illustrate an attitude toward animal forms markedly different from that ordinarily encountered in Mississippi pottery, where normally the attempt is to come as close to naturalistic representation of the animal as possible.

A further detail remains to be mentioned. In C4 (Plate I) may be seen a vessel decorated by incision, and also vertical fillets
notched or indented, extending from the rim down to the shoulder. This is precisely the sort of feature that occurs on certain shoe-form pots in the St. Francis Basin. I shall have more to say about this form in connection with that area. Here it is sufficient to note that the aforesaid shoe-form in the St. Francis is associated with a thin drab ware, analogous in every way with the type we are at present discussing. As far as I know the shoe-form does not occur in the Cumberland, though it has been reported from sites in (1) East Tennessee. Nevertheless the occurrence of decoration, elsewhere associated with it, deserves recording. I shouldn't consider the thing worth mentioning were it not for the fact that elsewhere in the course of its pervagations, the shoe-form type tends to take on a snout and other zoomorphic features, of which these Cumberland (2) effigies are vaguely reminiscent. I shall perhaps have occasion to refer to this point later in connection with the less equivocal shoe-form pots to be found in the St. Francis Basin. One may, however, anticipate this much by saying that if these vessels have any connection whatever with the shoe-form, it is an extremely tenuous one, representing perhaps the last dying flicker of a vessel form that must be, to judge from its enormous distribution, very ancient indeed.

Polished Drab: This type is distinguished at once from the wares already described by the finer paste texture resulting from

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\text{(1) Thomas, 1894, Fig. 251, p. 376.}
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\text{(2) Merwin & Vaillant, 1932, Pl. 20, c, d.}
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Lothrop, Zacualpa, 1936, p. 16.
the use of finer shell tempering. The result is a more compact and stronger appearing ware, though I doubt if it is actually harder than the thin drab ware just described. The surface is normally polished, in some cases to a high lustrous finish, running mainly to the darker shades of drab, not infrequently approaching a pure black. There can be little doubt that these darker (and more typical specimens) are the result of smothered firing. The contrast between the dark surface color and the light, and generally pinkish, paste strongly suggests this method. This contrast is further accentuated by the tendency for the surface to flake off revealing the lighter surface of the paste beneath, and suggesting a possible slip. I think, however, there can be no question here of an actual slip, but rather the approximation that is frequently noted in the case of highly polished wares. The term "pseudo-slip" or "mechanical slip" has been used to describe this type of finish, would probably be applicable here. Generalizations on the degree of polish and lustre would be futile. The range is all the way from a dark lustrous finish, showing not even the usual striations of the polishing medium, to surfaces in which the traces of any polish at all are only faintly evident. A great deal depends on condition. Under

(1) Myer (1928, p. 524-5) noted this contrast, explained it as follows: "The paste of these three bowls was a dark grey. This had been coated, both on the exterior and interior, with an Indian red slip, and this slip had then been stained black, probably after the manner shown in Fig. 134" (an illustration of the Catawba method of smothered firing). Unless he is describing an entirely different type of pottery, which I doubt very much, this explanation is obviously wide of the mark.
certain soil conditions, etc., polished black surfaces tend to revert to something approximating plain drab ware.

**Polished Drab shapes: Plate II:** The upper portion of Plate II (Al-B4) presents a small selection of jars and bottles in Polished Drab. At first glance the jar forms seem to be closely related to the handled jars characteristic of Thin Drab ware. Actually the differences are well marked. The characteristic features are the pronounced constriction at the neck with a sharply outflaring scalloped rim. The type seems to run to small, almost miniature sizes. The ware, while not exhibiting a high degree of polish falls more readily into the Polished Drab than the Thin Drab category.

To any one familiar with Middle Mississippi pottery in general, the ridiculously small showing of bottles in this collection must come as a distinct surprise. Two additional specimens could have been produced, but one was broken in such a way as to leave its exact shape somewhat dubious, the other is a miniature. Four bottles out of some two hundred specimens is a remarkably low percentage. The two examples shown (Bl-2) are of the tall-necked "carafe" type. As we shall see, this type likewise predominates in Cumberland Lost Color. This is also at variance with the situation in other Middle Mississippi areas, where the tall-necked bottle tends to be outnumbered two to one by short-necked types. It may be of some significance that the latter are fairly common in the pottery I have designated as Cumberland X.
The term "blank face effigy" has been suggested to designate the sort of thing shown in Plate II, B3-4. If I could devise a better one I should use it, for it is not altogether satisfactory insofar as it implies that a human or animal effigy factor is involved. In other words the supposition is that you have a conventionalized effigy form in which the part that would normally be the face has been usurped by the vessel opening and thus rendered "blank". Such may have been the case in the two examples before us, but in the majority of instances it would be difficult to say what, if anything, was intended. One or two examples figured by Thruston show clearly a derivation from a gourd proto-type, in connection with which, of course, the "blank face" business makes no sense whatever. In any case it seems best to defer further discussion of this highly problematical form until we have had opportunity to see a greater number and variety of specimens. Evidently here on the Cumberland it is not a common type. Myer found a very interesting vessel of this type, quite similar to the two specimens before us, except that a double spout joins the neck and body (Fig. 43). So far as I know this is the nearest approach to the so-called stirrup-handle vessel to be found in the Cumberland region.

Plates II - III: The commonest bowl shapes are shown in Plates II and III. Bowls with plain rims (Pl. II, D1- Pl. III, A4)

Fig. 43. "Blank-face" effigy with "stirrup-handle" features. (Myer, 1928, Pl. 104, d)

tend to have flaring sides and flat or flattish bottoms. Scalloped rims are apparently quite common. A number of typical examples are seen in Pl. III, Bl-4. Bowls with simple hemispherical shape with notched or indented rim coils are so common as to constitute a major diagnostic for this culture, (Pl. III, Cl-E4). They are not confined to the Cumberland valley by any means, however. We have already noted their appearance at Fox Farm, a Fort Ancient site (p. 39). They are said to be one of the determinant features at Kincaid, the University of Chicago's site in southern Illinois. Here Deuel has found an implement that he thinks was used in producing the notched effect, a thin flat piece of sandstone, with sharp beveled edge on one side. These "sandstone files" were evidently found in considerable numbers at Kincaid. No doubt they

(1) Information from Thorne Deuel.
would be eminently suited for notching these rims. I have already suggested that a similar instrument may have been used in making incised decorations on thin drab ware. However, I find no record of such an instrument having appeared on any site of the Cumberland culture in Tennessee. This is not necessarily conclusive, however, since the importance of such implements, possibly even the implements themselves, may easily have escaped the attention of earlier investigators.

Plate IV: This plate brings together a rather heterogeneous assortment of bowl forms. The specimen presented in A1 is the only example in the entire collection of a form that is extremely common elsewhere in the Middle Mississippi area, notably the St. Francis Basin. To wit: a simple, steep-sided bowl with semi-lunar lugs. In A2-B4 we have bowls with a sort of pitcher-spout extension of the rim. If such spouts had any utilitarian significance one would not expect to find two of them on each bowl. From these is an easy transition to the next type, Cl-4, in which a single "spout" is balanced by a group of nodes on the opposite side. The intention here is clearly to represent a marine shell form, and one is reminded, of course, of the actual shell containers which we have seen to be diagnostic for this culture. Whether a case of conventionalization of something originally copied direct from a shell prototype, or merely a "realization", that is to say an approximation of the natural form resulting from the modification of something originally quite different, I am not prepared to say. The low stage of realism
represented in the specimens before us would incline toward the latter view. A better case, perhaps, could be made for the mussel shell forms in Dl-4, where a higher degree of naturalism is in evidence. It may be worth while to return to this question later in connection with the St. Francis area, where shell forms are still more realistic. In El-4 are a number of bowls, probably related to the shell forms above in some way, but into which other factors have entered to confuse the issue. El-2 has become a half gourd form. The remaining two examples are entirely problematical.

Plate V: In Plate V we continue with bowl forms showing effigy factors. In fundamental shape, many of the frog and fish effigies shown here come nearer to what I have elsewhere been calling "jars". In case the reader is bothered by the patent inconsistency of this and other terminological usages to follow, I may as well disclaim at once any attempt to set up a system of shape-nomenclature. Repeated, and wholly unsuccessful efforts, in this direction have convinced me that, even assuming it to be a possibility, a rigid classification of shapes is of questionable desirability. Classifications of this sort, I know, are admittedly arbitrary, are purely

(1) Thruston figures a double vessel in which both valves are represented, and in which the naturalistic element is carried about as far as it could go. 1897, Pl. VI.
for convenience, but in the case of Middle Mississippi pottery shapes I have not discovered that such a classification is even convenient. Certainly an elaborate scheme which I worked out for St. Franciscus Basin pottery turned out to be remarkably useless when applied to similar, but just sufficiently different, pottery from the Arkansas river. There are times when a bowl is unmistakably a bowl, a jar a jar, but there are other times when it is more convenient (and makes more sense) for a jar to be a bowl, or even a bottle. Given the point of view, it is scarcely necessary to add that the arrangement of photographs and the order of description here presented is in no sense to be taken as an attempt at classification. Therefore I shall not consider it necessary to offer any more apologies for the numerous inconsistencies that are sure to follow.

To return to Plate V and the effigy types presented therein. One of the most interesting and widely distributed forms in Mississippi pottery is the bowl with effigy features applied to the rim, such features generally consisting of a bird, animal or human head, balanced by a flange-like extension of the rim on the opposite side, hence generally considered as the tail, though obviously in the case of human effigies such was not the potter's intention. The present collection is relatively poor in this type of vessel. With the exception of a few examples of the anthropomorphic type, to be dealt with later, the full range is shown in Al-B2. Except for the last (B2) they are all plainly based on a duck prototype. The exception is, I think, an owl; the realism is not striking. Judging from
published material the full range of subjects should include the bat and such animals as the dog, fox, bear, etc. Nevertheless it seems clear that the duck-form remains by all odds the most characteristic. The absence of the serpent-cat-bat monster so prominent in bowls of this type from eastern Arkansas is noteworthy, particularly in view of the fact that the concept is present but finds expression in an entirely different shape, as we shall see. Notable also is the absence of the conventionalized flat bird head, which seems to have such a wide distribution in Middle Mississippi ceramics. Such flat heads normally face toward the inside of the pot, whereas heads (except human heads) regularly face outward in all Cumberland examples. I am not yet prepared to say whether all, or any, of these differences are significant.

Perhaps the commonest and least interesting of all effigy types is the frog, a favorite subject wherever (in the Mississippi region) effigy pottery was made. Typical Cumberland specimens are shown in B3-4. The remainder of Plate IV is given over to a series of fish forms. As in the bird forms already considered there is here also a lack of range, a certain approach to standardization, which I think is in marked contrast to the situation in other areas where fish bowls are made. It will perhaps be worth while to elaborate this point in connection with these other areas.

**Plate VI:** Here are brought together various forms in which a human effigy factor appears, and a number of solid clay figurines. The purpose of bringing such dissimilar forms together on the same
plate was to see if certain general characteristics are present
that might be used to define a "Cumberland type", or perhaps
several such types. This question will be dealt with later. At
present I am concerned with the shapes themselves and their dis-
tribution. The first type, a bowl with four outward-facing heads
attached to the rim, is a definite Cumberland specialty. While
represented by only two specimens (and a miniature, not shown)
in the present collection, it appears fairly frequently in pub-
ished descriptions of Cumberland pottery. Thruston figures two
(1) examples, and calls them "medallion bowls". Myer found one in a
child's grave at Gordon, called it a "prayer bowl" and from it
reconstructed practically the whole religious content of the
(2) "Gordon people". It may be quite possible that some reference to
the four world quarters was intended by the arrangement of heads
on this type of bowl. On the other hand, it must be admitted, it
is a fairly obvious way to decorate a piece of pottery. The only
occurrence of this type outside of the Cumberland, that I have been
(3) able to find, is in the Cairo Lowland and at Etowah. A similar use
of decorative heads is very common, however, in the St. Francis Basin,
but in connection with entirely different sorts of vessels. Particu-
larly common is the use of heads on tall-necked water bottles, as


(1) Thruston, 1899, pp. 150-1, Pl. VIII.
(2) Myer, 1928, pp. 537-8, Pl. 115a.
(3) Moorehead, 1932, Fig. 71b.
we shall see (Pl. XVII, Al-4).

The best effigy heads, it would seem, are associated with small deep bowls or cups of the type shown in A3-4. This type of vessel is not confined to the Cumberland by any means, but it is here that it reaches its highest point of specialization and shows the highest degree of skill in modeling. Such bowls are normally oval in shape (viewed from above), the head and "tail" being situated on the shorter axis of the oval. Bottoms are likely to be flat, often with a very definite "break" from sidewall to base. They generally show a high degree of finish. Occasionally there is a further embellishment consisting of three or four parallel lines just below the rim. These lines dip down to form a pendant half-circle underneath the head and tail flange opposite. Sometimes they also make a loop on the sides. This type of decoration, unfortunately not represented in either of the two examples shown here, has very interesting relationships in other areas, as we shall see. A further detail of specialization is that the heads are generally hollow and contain pellets of clay. Most of the features enumerated will be seen in similar vessels from other Middle Mississippi cultures, but nowhere else, I venture to say, carried to the same pitch of development.

Of no less interest is the next form, illustrated in B1-4, the so-called "man bowl". Its close relationship to the rim effigy

(1) Myer, 1928, Pl. 115b.
Thruston, 1897, Fig. 50, p. 144.
type just described, while not apparent here, is well brought out by a specimen figured by Thruston in which the head is in the upright position characteristic of the rim effigy bowls, whereas the arms and legs are in the recumbent posture affected by the man bowls. The shape also, irrespective of the effigy features is precisely intermediate between the two types. One might be tempted to construct an evolutionary sequence deriving the rim effigy type from the recumbent form. The difficulty is, of course, that both types occur elsewhere in the Middle Mississippi region, so that even granting the possibility of such an evolution, there is no reason to suppose that it occurred in the Cumberland area. As a matter of fact both types can be shown to have had a very wide distribution extending as far as the southern Andean region of South America, consequently the possibility that these represent very old and fundamental traits must be considered.

I shall discuss the general problem of rim effigy features later in the course of this study. The recumbent form, however, considered from the point of view of wider relationships, is more clearly exemplified here in the Cumberland, and may therefore best be dealt with at this time. This type of effigy has an enormous distribution. It is one of the principal types in Chihuahua.

(1) Thruston, 1897, Pl. VI.
Sayles, in a synoptic diagram at the end of his recent report on Chihuahua pottery, shows an example almost precisely similar to the (1) specimens before us. The type is classified by Henry A. Carey, another recent writer on Chihuahua archaeology, as one of the four prevailing types of human effigy, accounting for 24% of the effigies in the collection studied by him. He makes an interesting, if somewhat wild, suggestion in regard to this type: "The attitude of these figures is very unusual in ceramic arts. Similar effigies are found elsewhere in very small numbers only in the Mississippi valley where they must have been introduced in some way from Central Mexico. Effigies of this type apparently represent concepts of (2) Chacmool, the reclining god of central Mexico." The connection is not impossible, but I think the writer has failed to consider that this recumbent figure has a far wider distribution as a pottery effigy, than the Chacmool. If it is to be tied in with Middle America at all, it must be in a more fundamental sense. Its distribution in Middle America is apparently general, for Thompson lists it in a group of South American traits "generally considered (3) to have diffused from Central America." Vaillant in his Ph.D. thesis figures a specimen precisely similar to the Cumberland forms

(1) Sayles, 1936, Fig. 16.
(2) Carey, 1931, p. 343.
(3) Thompson, 1936, p. 16.
from Salcaya, Guatemala. Thompson, in the work already cited, has a good deal to say about the distribution of this form. He does not consider it as a diffusion from Central America, but as an indigenous South American trait. It is found in Colombia, Ecuador, the Diaguite, in the Marajo culture of eastern Brazil, and in the Antilles. He suggests an Andean origin, possibly in the Diaguite, from which it may have been carried into eastern Brazil by the Tupi-Guarani peoples. No need to go into the evidence any further. The point is, it seems to me, that if one is going to look for remoter relationships at all (a questionable proceeding at best) there is no single special area toward which one's finger may be pointed. The trait is too fundamental and widely diffused for that.

Complete human effigies of the bottle form with the opening at the back of the head, the dominant effigy type for Middle Mississippi as a whole, are not well represented here, at least not in Polished Drab ware. In Lost Color, as we shall see, it is the prevailing type. In general the examples shown here, Pl. VI, C1-4, closely resemble analogous forms in other Middle Mississippi cultures. C2 for example might be described as a generalized Middle Mississippi effigy type. It might easily be lost in a collection.

(1) Vaillant, 1927, Fig. 120.
(2) Thompson, 1936, pp. 16, 80, 107.
from the Cairo Lowland. C3-4, of the same generalized bulbous type, shows by the modeling of facial features more specialized Cumberland characteristics. For the really typical Cumberland effigy type, however, we have to turn to the Lost Color ware.

**Solid figurines:** The remaining figures on Pl. VI (D1-E4) and Fig. 44 show a small series of solid figurines. To which might be added three or four similar examples from various literary sources. Solid figurines are rare in the Southeast generally. Moorehead found a number of fragments at Etowah, some of which pretty surely came from solid figurines. Stylistically, if one may speak about "style" in connection with works of such crudity, they are very close to the Cumberland specimens. We have in the Museum several diminutive examples of a somewhat different style, one from Fox's Field in Mason county, Kentucky (so far as I can make out, the same as Fox Farm, the well known Fort Ancient site), three others from a village site at Bolton, West Virginia, which I am unable to find on the map. Neither these, nor the Cumberland examples for that matter, are in any way comparable to the famous Hopewell figurines from the Turner Mounds. My impression is that figurines are rare, if not absent entirely from Middle Mississippian cultures other than the Cumberland. On the other hand, I have seen a small series from a site in northeastern Louisiana, a site which, curiously enough, seems to show very slight affinity with the
Fig. 44. Solid figurines, Cumberland culture. No scale. (a-d, f, from Thruston, 1897; e, g, from Putnam-Curtis Collection, Peabody Museum).
Mississippi culture at all. This is not the sort of evidence on which to base any general statements. However, one circumstance seems to be strongly indicated, namely, that the distribution of solid figurines does not appear to be co-extensive with that of human effigy vessel types, since the majority of occurrences as noted here are associated with cultures in which effigy pottery does not appear. As to the possibility of remoter relationships, with Middle American figurines for example, it would seem quite clear that the evidence is insufficient for any conclusions.

Moorehead introduced a number of Mexican fragments loaned by Mrs. Nuttal into his Etowah illustrations, and one must admit that, without referring to the text, it would be difficult, if not impossible, to take them out. However, this is not the sort of thing that can be regarded as an argument for connection. When one considers the range of material Mrs. Nuttal had to choose from, it is not surprising that she succeeded in hitting off some pretty close approximations. One may conclude this rather unsatisfactory discussion by saying: one, that a connection between Etowah and

(1) In the Harry J. Lemley Collection. From Poverty Point Plantation, West Carroll Parish, Louisiana. This is one of C. B. Moore's sites, and one that baffled him completely. An enormous mound site with rich midden accumulations, yielding abundance of stone objects, including a number of hematite plummets, and a great number of very curious looking objects of baked clay, among which were one or two rude limbless figurines, but no potsherds. (Moore, 1913, p. 66 et seq. Pl. II).

(2) Moorehead, 1932, Figs. 67-69.
the Cumberland is indicated by the general similarity of figurine types; two, that if figurines in the Southeast mean anything from the point of view of Mexican connections, it is in Etowah and the Cumberland that the evidence, so far at least, appears to be centered.

The Cumberland effigy "type": Considering these heads as a whole, whether from bowl rims or figurines (Figs. 44, 45), what can we say about the Cumberland "type"? There is unquestionably a close stylistic homogeneity throughout, expressed chiefly in the shape of head and presentation of facial features. There is, moreover, the "knobby" effect of the whole resulting from the prominent ears and complicated headdress. The latter varies enormously but, with few exceptions, appears to follow a fundamental pattern. There is a top-knot, often double, flanked by lower protuberances on each side, and a prominent bun jutting out from the occiput. Whether this complex of protuberances represents some sort of built-up affair or is merely a style of hairdress is difficult to say. The probabilities, it would seem, favor the latter hypothesis. The exceptions referred to above, however, seem to lie outside the domain of the hairdressing art. The peaked affair of Fig. 45a, for example, ending in a long "tassel" falling down the back, strongly suggests a cap of some woven material. Another interesting type, beautifully exemplified in Pl. VII, B2-4, consists of a turban-like roll from which depends a similar tassel.
Fig. 45. The Cumberland effigy "type". No Scale. (a-g, Thruston, 1897; h, Wrenshall, 1895; i-1, Putnam-Curtis Collection, Peabody Museum).
It is difficult to see how this effect could be achieved by manipulation of the hair alone. More interesting still is a type of peaked cap that suggests some sort of basketry or wicker-work. We shall see this better exemplified in Lost Color ware. Notwithstanding all these radical differences in hair style and headdress, I think it fair to say a uniform character pervades the entire group and permits us to speak of a Cumberland type, though its definition in objective terms might be a matter of some difficulty.

Miscellaneous atypical shapes: Pl. VII: Before going on with a description of the next type of Cumberland pottery, there remains a number of atypical specimens in Polished Drab that should be dealt with, not only for the sake of completeness of the record, but because these are the sort of objects that often reveal important cultural and trade connections. They will be found on Plate VII, Al-B4.

The first specimen, Al, is the only example of cord-marking I have encountered, either in the Museum or in published descriptions. It is well to be cautious on this point, because so little sherd material has been examined. If this reflects the true situation, it is interesting and possibly significant. One may recall the importance of cord-texturing in Cahokia, Spoon River and Fort Ancient. The question there was whether it may not have been due to Woodland influence. Its apparent absence, or extreme rarity, here seems to bear on this question. The Cumberland, it may be argued, represents a "purer" form of Mississippi than the above-named cultures. If so, the absence of cord-marking would seem to
indicate that it is not an original Mississippi trait, but one marginally derived from contact with Woodland peoples.

A2, an example of so-called "nubbin" decoration, is recorded here, because later in the course of this study it may be worth while to consider the distribution of this type of decoration in the Southeast, on account of possible affinities with the Southwest and Middle America. It is quite plainly not at home in the Cumberland. Even the shape of the vessel and the ware itself looks out of place.

The next form A3, is represented by two specimens in the Putnam-Curtis collection, very small in size, very thin lightweight ware, possibly a variant of Thin Drab ware, though the shape does not betray any relationship.

A4 is likewise aberrant. The ware would fall within the range of Polished Drab, but the shape is completely atypical. The lugs are perforated vertically.

The elaborate tripod bottle shown in B1 is an interesting specimen with ramifications far afield, best deferred until other examples have been encountered. The thing obviously does not belong in the Cumberland. Vessel supports of any type are apparently extremely rare in the Cumberland. The occasional tripods encountered are generally associated with Lost Color. However, a jar with (1) tetrapod support is figured by Jones. Generally speaking the tetrapod, particularly when associated with a jar form, is considered

\*(1) Jones, 1876, Fig. 51.\*
to be an older form than the tripod, a circumstance which may be of interest here. In any case, the subject may be dismissed for the present with the statement that the tripod is apparently not a Cumberland feature and the present vessel either anomalous or introduced in trade.

The large hollow figurine, B2-4, is, unfortunately, also anomalous. Unfortunately, because it is by all odds the best piece of modeling in the whole collection. One may be pardoned for wishing there were more like it. There is no reason to believe, however, that it was not made here in the Cumberland. The style is somewhat similar to effigies in Lost Color, soon to be described, but if it was ever decorated in that manner, all traces of such decoration have disappeared. The ware is very soft, as a result of extreme leaching of the fine shell temper, so that it is difficult to judge what its original surface may have been. Very likely it would fall into the Polished Drab category. The figure is hollow but without any opening. It evidently contains a number of fine particles of clay or other material, that rattle faintly, but whether such an effect was intentional one cannot say. The headdress is extremely interesting though not radically different from other Cumberland examples. That the figure is associated with death would seem to be indicated by the object held in the mouth.

Lost Color: We now approach a subject that requires a certain amount of preliminary explanation, not to say justification, owing
to the fact that the presence in North America of what is known as lost color or negative painting in Middle and South America is not generally recognized. It will therefore be necessary, first, to say something about what lost color is, or purports to be; and second, to demonstrate if such a thing be possible that the term is applicable to the pottery I am about to describe.

This type of decoration was first described and the suggestive term "lost color" applied to it by W. H. Holmes in his pioneer work on Chiriquian antiquities published in 1888. His purely theoretical solution of the technique employed was as follows: a thin black pigment was carried over the area to be decorated and upon it were traced the designs in a "taking-out" medium, which, when removed, carried with it the black pigment beneath, exposing the original ground color of the vessel. A better solution was brought forward by C. V. Hartman whose attention was caught by a method of decorating gourds still in use in certain parts of Salvador. In this method the decoration was painted on in melted wax, after which the entire surface was coated with a black pigment. Then the gourd was dipped in boiling water which melted off the wax and with it the overlying pigment, leaving the pattern exposed in the light coloring of the

(1) The only published reference to lost color in the Southeast that I have encountered is by Margaret Ashley in Moorehead's Etowah report, 1932, p. 130.

(2) Holmes, 1888, p. 113.
rind itself. Archaeologists, who have dealt with the sort of
pottery under discussion, seem to be in agreement that this, or
something very like it, was the technique employed. Thus Lothrop,
in what may be taken to be the "last word" on the subject, defines
"negative painting" or "lost color" as follows: "As in true batik
textiles, all portions of the field of decoration which it was
desired not to color were blocked out in liquid wax and the vessel
was then dyed. When the dye had dried, the wax was removed -- as
well as the pigment covering it -- and a pattern in the color of
the original surface was revealed against the darker background
of the dye. . . . . Pottery vessels adorned by negative painting
can usually be distinguished at a glance, owing to the quality of
the decorative lines and the tendency of the patterns to fade in a
manner differing from the ordinary brush-applied designs. These
characteristics cannot be fully set forth in writing or seen in
much-reduced illustrations, but become apparent from examination
of actual specimens."

Sec. Amer. de Paris n.s. tome 7, Paris 1910, cited by Linneé, 1934,
p. 162.

(2) MacCurdy, 1911.
Linneé, 1934.
Vaillant, 1931, 1934.
Lothrop, 1936.
Thompson, 1936.

(3) Lothrop, 1936, p. 9. Lothrop uses the terms "negative painting"
and "lost color" interchangeably, as do most Middle Americenists.
This causes a certain amount of confusion, and, what is worse, leaves
us without a term to describe the sort of background painting that
is found in the Southwest. I shall therefore take "lost color" to
mean specifically the technique described above, "negative painting",
a more inclusive term, which covers any sort of negative design,
regardless of the technique employed.
I offer Lothrop's last statement in lieu of actual demonstration that the ware which I am about to describe, as well as other similar Middle Mississippi types, is properly designated as lost color. The designs in most cases are so faded that it is difficult to present convincing photographic evidence. My best argument is that both Lothrop and Vaillant have examined specimens of this ware, and, while preserving that scientific caution characteristic of them equally, have admitted that it is remarkably similar to lost color wares in Middle America.

It has been found necessary to divide Cumberland Lost Color into two groups depending on whether or not a slip has been applied to the paste. I am not sure that the difference is a significant one, but it is the sort of thing that cannot occur by chance and must therefore be considered classificatorily. The first type, that in which there is no slip, is distinctly in the minority, being represented by only four specimens in the collection before us (Pl. VII, Dl-4). It is, obviously, too small a series for any general statements in regard to shapes. Decoration is in a very thin faded black pigment, so thin that it seems more appropriate to call it a stain or dye rather than a paint, on the polished pinkish buff surface of the ware. Designs, where they can be made

\[\text{(1) An understatement perhaps. If it were not for the factor of distribution, I feel certain that neither would hesitate for an instant to call this material lost color and have done with it. But Middle Mississippi is a long way from Middle America. No one can be blamed for being wary of taking it at a single jump.}\]
out at all, are simple concentric circles or scalloped disks circumscribing a cross. Decoration on the effigy is precisely similar to that of effigies in white slipped ware shortly to be described.

Plates VII-VIII: The second, and numerically more important type, which involves the use of a slip, makes up the balance of Pl. VII and all of Pl. VIII. This evidently is the definitive decorated ware for the Cumberland culture. It is represented by 20 whole vessels (10% approx.) and a few sherds in the collection before us. So far as can be judged from rather meagre descriptions most, if not all, examples of decorated ware in published sources fall into this type. The ware is of the same fine shell-tempered pinkish buff paste as in the unslipped type, over which is a white slip which was polished before decoration was applied. The slip shows a marked tendency to disappear carrying with it, of course, the decoration. Many examples look very much as though the slip had come off in the washing. Added to this is the unfortunate tendency for the black stain to fade out. Several writers refer to the fact that designs which can be made out plainly when first taken from the ground quickly disappear upon exposure to the air. Further, in some cases, it appears that the black has turned white, probably as a result of misfiring. The result of all these adverse factors is that in most cases very little can be made out of the original design. Sometimes it is necessary to dampen the surface
merely to ascertain whether or not there was a design.

Occasionally the decoration in lost color is supplemented by the addition of direct painting. This is particularly pronounced, as we shall see later, in the Cairo Lowland section of the St. Francis Basin, where it would appear that designs were blocked out, so to speak, in lost color, then filled in with red and white pigments. Here the only pigment in evidence is red, and that only sparingly used in two examples.

**Shapes in Lost Color:** Shapes are more varied than appears in the present collection. In general they comprise tall-necked bottles (carafes), dishes or plates with straight flaring sides and effigies in considerable variety, both animal and human. Omissions from this list are significant. Handled jars of standard form are never decorated in lost color. (This statement might be

\[1\text{ Cf. "The tendency of the patterns to fade in a manner differing from the ordinary brush-applied designs" cited by Lothrop as the chief distinguishing characteristic of this ware in Middle and South America. (1936, p. 9).} \]

MacCurdy is likewise explicit on this point. "Much of the richness in contrast between the black interspaces and the patterns in the original ground colors is lost, owing to the ease with which the black rubs off. When new the ware must have been highly effective. So much of the black pigment has disappeared through usage before burial, and especially from long contact with the earth in a region of relatively great rainfall, that the original ground colors show everywhere through the black, and in many places the pattern is completely lost because of the absence of the black." (1911, p. 106).
amplified to cover the entire Middle Mississippi area; wherever painted or lost color decoration is present, it may appear on a large and variable number of vessel shapes, but never so far as I know on the standard jar form. The latter is always decorated, if decorated at all, by some technique involving an alteration to the surface, incision, punctuation, etc.) Other omissions, in respect to lost color in the Cumberland area, simple semi-spherical bowls, bowls with rim effigy features, other "open" effigy forms such as shells, fish, frog, etc. In brief, with the exception of shallow dishes or plates, of which more anon, lost color decoration seems to have been confined to bottles and kindred shapes that might conceivably have evolved out of bottles, in other words to what might be called "closed" containers. Now this is interesting since a very hasty and superficial survey seems to reveal a similar situation in respect to the lost color ware of Middle and South America.

Holmes says that nine-tenths of the "Lost Color Group" in Chiriqui pottery may be classed as bottles, the remainder being divided between shallow bowls and various eccentric and effigy (1) forms. MacCurdy, describing the same class of material says: "The vast majority may be classed as bottle-shaped vases with globular bodies. Handles are comparatively rare. A number of open

(1) Holmes, 1888, p. 113.
shallow bowls are mounted as tripods. Life motives in relief are sparingly used. In only a few instances are these emphasized sufficiently to stamp the specimen as a zoomorphic unit. . . . . No attention is paid to the inner surface, especially of the narrow-necked bottles, the result being that the walls are quite thick in some places and thin in others. This carelessness in the finish of the interior is seen in a bottle broken in the plane of its greatest diameter . . . Such an interior was not suited to domestic purposes. . . . These vessels were valued for aesthetic and symbolic reasons and not for their storage capacity or as (1) utensils." I have quoted this at some length because it is difficult to escape the same conclusions in regard to the Cumberland vessels of this type. General statements on this question of shape in regard to South America I have been unable to find. Certainly, in the large collection of lost color ware from the Cauca valley, Colombia, in the Museum, the same predominance of bottles and other closed forms is to be seen. One is struck here also by the important part taken by human effigy forms.

There are no plates or bowls with lost color decoration in the present collection. One finds, however, some evidence in published descriptions that such a thing occurs, but it is impossible

(1) MacCurdy, 1911, p. 104.
to say very much about it. Later we shall see that the shallow soup plate is commonly associated with lost color decoration in the region of the lower Ohio. Its occasional occurrence here is therefore not surprising.

Typical bottles in Cumberland Lost Color are shown in Plate VII, El-2. These are lobate with four lobes separated by shallow vertical grooves. The usual manner of decorating such vessels is to emphasize each lobe by means of a broad circle or several concentric circles with a vertical stripe occupying the grooves between. There may have been one or more horizontal stripes on the neck also, though in some cases it would appear that the neck was solid black. For some reason or other the color is usually gone completely from this portion of the vessel, so it is impossible to say just what the prevailing arrangement was. This type of bottle is, I believe, normally without any basal features, but Thruston has one example with bulbous tripod support, the feet embellished with

(1) Thruston, 1897, fig. 41.
Myer, 1928, fig. 148, Pl. 112. The two examples on Myer's Plate 112 are restorations from sherds. One of them is clearly a negative design, the other though almost precisely similar seems more positive than negative. One would not hesitate to pronounce the first lost color, but the second would appear very doubtful.
circles similar to those on the body but, of course, smaller. One does not know for sure whether this is black on white or black on buff. A tripod bottle, precisely similar to this, but with horizontal stripes on the feet in place of circles, was found at Etowah. One of the special problems in connection with lost color ware in the Southeast is the similarities, amounting to practical identity, of forms and decoration in widely separated material, so that the question of trade comes to the fore. It becomes important therefore to compare not merely superficial aspects, but also the more fundamental properties of the ware itself. From observations taken down at the time this Etowah bottle was photographed, I would not hesitate to say that the ware is identical with Cumberland Lost Color of the black on buff variety, and that the vessel probably came from the Cumberland region.

Bottles of precisely the same shape decorated in the same manner often terminate in effigy heads, in which the owl seems to be a common motive (Plate VIII, Al-4). An interesting human effigy of this type is shown in Plate VII, E3-4. An area of red paint about the mouth probably represents face painting. The figure wears a very curious headdress, which we shall meet again in the

\(1\) Thruston, 1897, Plate V.

\(2\) Moorehead, 1932, fig. 33a.
St. Francis Basin, a sort of pyramidal affair. Thruston shows a number of similar examples, all associated with lost color decora-
(1) tion. Sometimes this headdress resembles nothing so much as a terraced pyramid, in other cases it seems to have ribs at the corners with horizontal lines, modeled or incised, between, in which case it looks not unlike a lemon squeezer. If this can be taken as an actual representation, and not merely a conventionalized abstraction, it would seem to indicate some sort of wood or basketry construction. I shall return to this subject later in considering the pottery of the St. Francis Basin. Its significance lies in its "queerness". Specific correspondences of this nature between two areas certainly indicate a close common tradition.

Another and different way in which bottles were elaborated into effigy forms is shown in Plate VIII, Bl-2 and fig. 46. The shape, popularly known as "dog-pot" is said to be not uncommon, particularly in Georgia. Kelly regards it as characteristic, I (2) believe, of a late period at Macon. To what extent it is correlated with lost color decoration I am unable to say. The only examples I have been able to find in published sources are, I believe, so decorated. The specimen in the Putnam-Curtis collection has lost all but the faintest traces of its decoration, but may be assumed to have been similar to the others illustrated. The third specimen

(1) Thruston, 1897, Frontispiece, also Pl. V, Pl. IX, fig. 40.

(2) Information from Dr. A. R. Kelly.
Fig. 46. Effigy bottles ("dog-pots"), Cumberland Lost Color ware. (a, Putnam-Curtis Collection, Peabody Museum; b, Thruston, 1897, Pl. IX; c, Heye, Hodge & Pepper, 1918, Pl. V)

(fig. 46c) was found by Messers Heye, Hodge and Pepper in a stone grave in the Nacoochee Mound in northeastern Georgia. Its similarity to the Cumberland examples is very striking. Judging from the fairly detailed description given by the authors, the ware is
precisely similar to that we are considering, and, though the
decoration is described as "painted", there can be no doubt that
it was produced by the lost color technique. With the exception
of a single stray sherd, it was the only painted ware found in
the Nacozari mound, therefore regarded by the abovementioned
(1)
authors as intrusive. It seems reasonable to regard it as a
trade piece from the Cumberland.

Disregarding the factor of decoration and considering solely
the question of form and the animal concepts involved, we find
this creature involved in wide ramifications. The explanation
implied in the term "dog-pot" is entirely insufficient, not to say
misleading. To begin with there is a strong serpent factor, which
can best be seen in related forms from Arkansas (fig. 92). But
there is unmistakably also a cat factor, not particularly well ex-
emplified in the examples before us. For the clearest demonstra-
tion of this feline element one has to turn to certain effigy pipes
in stone, the distribution of which seems to center in north-central
Alabama and Mississippi. A splendid example, from the Museum col-
lections, said to have been found at Moundville, is shown in fig. 92.
There can be no doubt that the same concept is expressed, though

(1) Heye, Hodge, Pepper, 1918, Pl. V. "This vessel, . . . is of
porous shell tempered ware, ecru in color, on which has been applied
a whitish slip, ornamented in brown with four connecting triangles
at the rim, three continuous bands on the neck, immediately beneath
which, surrounding the upper part of the body, is a series of con-
nected spirals, separated below by a field of brown from a band of
concentric circles interspersed with horizontal bars, followed by
another area of brown above the legs . . . " p. 20.
naturally the treatment differs considerably owing to the change from pottery to stone. Thus one can speak of a serpent-cat monster, a combination for which Middle and South America give abundant precedent. I am not sure, however, that hybridization has not proceeded still further. Our composite monster frequently shows bat characteristics as well. At any rate, what are generally accepted as bat features in Middle America are clearly present here. (Cf. Lothrop, 1937, figs. 66b, 71, & 179.)

I am not going to elaborate this point further here. A more extended discussion belongs with a consideration of our monster's Arkansas guise, at which time it may also profit to examine the question of distribution. Here I wish only to point out that intimately associated with lost color decoration is a zoomorphic composite for which one can find exact parallels in the Middle American region, possibly in South America as well.

An interesting, possibly unique, specimen is shown in Plate VIII, B3-4, a bottle with rectangular body and two heads, Janus-like, at the base of the neck. This is one of the few cases where red paint has been added as a supplementary color. It has been applied to one of the faces, the other being left white. It is tempting to interpret this as a reference to the red and white color symbolism associated with the dichotomous organization of certain Muskogean peoples (war and peace towns etc.)

Certainly the most interesting vessels in this lost color group are the human effigies with their curious and remarkably uniform decoration. A number of examples are shown in Plate VIII,
Cl-E4, one of which is reproduced at larger scale to show the
decoration (fig. 47). Myer is of the opinion that the decoration
represents a rattlesnake motive. It is difficult, however, to see
any pronounced resemblance to other representations, such as those
on shell gorgets, where the rattlesnake is definitely indicated.
There seem to be two types of effigies, possibly three. The first,
in which the shoulders are broader than the waist, is exemplified
in Cl-D2. This type is also hump-backed. The second type, squarish,
blocky form, is perhaps the commonest. It also appears to be the
more highly specialized, in that the modelling has been considerably
suppressed, possibly to provide a better surface for decoration.
The third type, if indeed it is a type, a thinner, elongated form,
is hollow but has no opening. Myer illustrates a beautiful speci-
men of this type from Castalian Springs. Evidently the hollow
figurine already shown in a group of "atypical" specimens Pl. VII,
B2-4, though it shows no trace of lost color decoration belongs to
this type.

On decoration considered apart from form very little can be
added. Aside from the very simple concentric circle treatment of
bottles and the curious "rattlesnake" motive on human effigies,
which is about the sum total of the decorative resources displayed
in the Putnam-Curtis collection, one may record one or two additional
motives from the published sources. The plates, figured by

(2) Op. cit. fig. 2.
Fig. 47. Lost Color decoration as applied to human effigies, Cumberland culture. (Putnam-Curtis Collection, Peabody Museum.)

Myer have at the center an equal-armed cross within a circle, surrounded by various arrangements made up of smaller circles, pendant half-circles, or chevrons, alternating in a strictly four-part arrangement. The essential kinship of this and the "rattlesnake" motive is indicated by the small circumscribed crosses on the shoulders of all the human effigies.

One interesting design, not very clearly illustrated by Thruston and reproduced here (fig. 48a) remains to be considered. There is no use in speculating as to what is meant by the large
figure on the left, though I should be surprised if it were not some sort of deathshaped motive as in the Moundville specimen reproduced for comparison (b). It is, of course, the hand with cross on the palm that furnishes the chief interest. The hand, generally with some sort of figure on the palm, either a cross as in the present instance or a double ogival figure commonly interpreted as an eye, is a symbol having a wide distribution in the Southeast.

![Fig. 48. Death symbols in Lost Color, Cumberland and Moundville. (a, Thruston, 1897, fig. 40; b, Moore, 1907, fig. 20)](image)

It seems to travel in company, a loose sort of complex, with other symbols apparently having to do with death, such things as the skull and crossed bones. Many of these elements have appeared at the great Alabama site of Moundville, and have consequently come to be associated with the culture there represented. I have already referred to a number of points of contact between the Cumberland and
Moundville, among them being the use of lost color itself. This hand symbol is another.

A proper consideration of the problems raised by the occurrence of lost color decoration in the Middle Mississippi region can only be undertaken after a more extended study of its distribution. So far as the immediate area we are considering is concerned, there are one or two points that may be emphasized for possible use later on. First of all is the interesting circumstance that lost color seems to be the only form of painted decoration used by the Cumberland people. This, as we shall find, is not the case in the St. Francis Basin, where lost color competes with various types of direct painting. Equally curious, if not more so, is the apparent absence of plain redware in the Cumberland. Less significant perhaps but not without interest is the fact that lost color decoration in the Cumberland is associated with forms, notably human and animal effigies, that are rarely decorated in the St. Francis Basin. With these and similar considerations one could, I think, build up a prima facie case against the possibility of deriving lost color from the St. Francis Basin. However, this is not the place for such deductions.

Miscellaneous pottery objects: The belief, already expressed, that a profusion of small pottery objects is in itself a general characteristic of Mississippi culture, is borne out by the Cumberland material in thankful fashion. All types of such objects that
have hitherto appeared (except possibly the ladle), and one or two
new ones, are not only present but appear in altogether more highly
developed guise.

Figurines and rattles: A group of small solid human figurines
has already been discussed and illustrated (fig. 44). Various
animal forms, "totems" in the older literature, owl, turtle, bat,
etc. are likewise present. In addition to the solid type of human
figurine, which is perhaps more common, are hollow specimens con-
taining clay pellets and designed obviously as rattles. We have
seen that effigy heads on bowl rims were often treated the same
way. Rattles without an effigy factor are evidently less common.
Thruston figures one in the shape of a small gourd, with the stem
perforated for suspension, found in a child's grave near Nashville.

Miniature vessels: Miniature vessels are numerous and in
many cases remarkably well made. Practically every shape repre-
sented in full size vessels finds its counterpart in miniature.
The question of the significance of these tiny vessels may just as
well be discussed here as elsewhere. Analogous objects are found
practically everywhere in the eastern United States where pottery
has reached a fairly advanced stage, but particularly in regions
penetrated by a Mississippi type of culture. They are no less
common in the Southeast and Middle America. In various regions

(1) Thruston, 1897, fig. 67, p. 164. Evidently a child's play-
thing as with us. This raises the question of the rim effigy
bowls. Were they likewise made for children?
equally various opinions are held as to their precise function in the life of the peoples that made them. Thus, in reporting their occurrence in the Upper Gila region, Kidder notes that they are found in offertory shrines along with figurines, miniature bows and arrows, etc., from which it would seem that they were made expressly as votive offerings, not as toys. Roberts expresses a directly contrary opinion, that they should be considered purely as toys, nothing more. Linne, in connection with their appearance at Teotihuacan, straddles the question, but suggests that some may have been used by medicine men for storage of different types of medicine, as do the present day Cuna Indians of South America. Bennet and Zing say that the Tarahumare women test their clay mixture by making one or more small vessels. Thus, if we insist on a rationalistic explanation, a wide choice is open. Here in the Cumberland, the toy hypothesis has the support of most investigators because of their so common occurrence in the graves of children. I should not think it necessary, however, to rule out all other explanations.

(1) Kidder, 1924, p. 98.
(2) Roberts, 1930, p. 80.
(3) Linne, 1924, p. 71. p. 94.
Disks: Pottery disks, generally reworked sherds, either perforated or unperforated are common in all Mississippi cultures thus far examined. The Cumberland is no exception. If the supposition that they are gaming pieces is correct, it must be supposed that the game was an extremely popular one and enormously widespread in its diffusion. Golf . . .

Balls: Small spheres of fired clay, marbles if you prefer, are also quite common on Cumberland sites.

"Trowels": I cling to the quotation marks because I think it far from established that such was actually their function. "Anvil", (1) the term used by Gifford can even less dispense with them, at least until it shall have been established that the pottery associated with the objects in question was actually made by the so-called paddle-and-anvil method. Whatever one chooses to call them, they are certainly very much to the fore in the Cumberland culture. The commoner types may be seen in fig. 49.

In addition to the commoner type just considered, the Cumberland has an object that more closely approaches our idea of what a trowel should be. This is a flat-iron-like implement with a perfectly flat working surface. The supposition that it was used as a finishing tool in wattle-and-daub construction is an eminently

(1) Gifford, 1926.
Fig. 49. Pottery "trowels", Cumberland culture. Scale 1:2. (Putnam-Curtis Collection, Peabody Museum)

(1) reasonable one. They might also have been used in troweling the slick clay floors that Myer found in the Gordon and Fewkes sites. So far as I know, this type of trowel (we can dispense with the quotes) has not been reported outside the Cumberland area.

Beads: Pottery beads are common enough in various Mississippi cultures, but nowhere, I believe, so well-made as in the Cumberland, where there is also a specialized "hour-glass" type not found elsewhere (fig. 31). These are normally in a fine dark "smudged" ware.

Ear-plugs: Ear-plugs of pottery have already been mentioned in connection with similar objects in stone. There remains, however, one type which apparently does not occur in stone, a small

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(1) Thruston 1897, p. 3; fig. 13, p. 76; fig. 66, p. 163. Five of these "smoothers" were found in a single grave in the Noel cemetery near Nashville, from which Thruston opined that the individual was a plasterer and these the tools of his trade. They showed signs of considerable use. "Upon examining these trowels closely, we find a thin film of smooth, hard-pressed, red clay adhering to the original hard-burned pottery surfaces of some of them, which offers additional evidence of their use as plastering trowels. (foot-note, p. 163)

(2) Myer, 1928, p. 520, 570.
doughnut-like object with perforations for suspension. Our authority does not state his reasons for assuming this to have been an ear-ornament rather than a gorget or pectoral of some kind.

Pipes: Pipes are not particularly common in the Cumberland, but where present, are almost invariably of pottery rather than stone. The prevailing type is the familiar "equal-armed" elbow pipe characteristic, it would seem, of all Middle Mississippi cultures. The type is distinguished chiefly for its lack of beauty and for the fact that the stem hole is generally no smaller than the hole that holds the tobacco. Representative examples from the Putnam-Curtis collection are shown in fig. 50.

Salt-pan ware: In the mere handful of sherds afforded by the Putnam-Curtis Collection in the Museum, there are no examples of salt-pan pottery. That it belongs to the Cumberland ceramic complex, however, is quite evident from information in Myer's report of the Gordon and Fewkes sites. Apparently there were two distinct types on both sites; a plain ware associated with large shallow round-bottomed bowls; and a textile-impressed ware which seems to have run to steep-sided flat-bottomed pans. Vessels in

(1) Thruston 1897, fig. 73.
(2) Myer 1928.
(3) Ibid., figs. 47, 171.
(4) Ibid., Pl. 130, figs. 169-170.
Fig. 50. Pottery pipes, Cumberland culture. Scale 1:2 (Putnam-Curtis Collection, Peabody Museum).

both types were sometimes upwards of 30 inches in diameter. The second type is particularly interesting from the point of view of the information on textile development that it affords. An excellent discussion with abundance of illustrations is to be found in Webb's report of excavations at Tolu on the lower Ohio river.

Summary: Before passing on to a brief consideration of the material tentatively designated as "Cumberland X", it may be well to characterize briefly the central Cumberland culture just described. Though lacking some of the more conspicuous features of Cahokia, the great mounds and formal assemblage, it gives the impression nevertheless of greater advancement and refinement (if one may speak of refinement in connection with a culture so low in the general scale of things). This is seen particularly in the pottery, which has its own especial individuality, readily apprehended but not easily described. While partaking in general of features that we have come to regard as pertaining to the Mississippi pattern, it is only with the greatest difficulty that the culture as

(1) Webb, 1931a, p. 375, et seq.
a whole can be contained within that framework. It offers a number of features, which, according to our present knowledge of distributions, transcend the limits of the Mississippi sphere of influence. I refer, of course, to that nexus of traits that seem to be ceremonially tied and which are best exemplified in extravagant flints, polished stonework and the arts of shell engraving and repoussé copper. I shall have a great deal more to say about this ceremonial complex in a later section. It offers, to my mind, the most attractive problem thus far encountered in the present study.

4. "Cumberland X."

The term "Cumberland X," I may remind the reader, is intended to convey as little as possible. I resorted to it simply because material from a number of sites seemed markedly different from what I think is safe to regard as "typical" Cumberland pottery. A few of these sites are in the immediate Nashville district, others are in Stuart county further down the Cumberland river about 100 miles below Nashville. All are stone grave sites. From the sketchy information at hand there seems to be no reason for questioning their general affiliation with the Cumberland culture. Judging from the pottery alone one might venture to regard these sites as representing an "undifferentiated" Cumberland, that is to say a ceramic group in which the most characteristic Cumberland specializations do not appear. On the whole the ware is considerably cruder and consequently less easy to classify. The distinction between
plain drab and thin drab, which seemed valid for the more typical Cumberland pottery, cannot be maintained here. Between plain drab and polished drab there is still a recognizable difference, though with a greater tendency to overlapping. The small number of specimens, however, 53 in all, does not warrant our getting involved in questions of classification.

**Plate IX:** Jar forms, which may be seen in Pl. IX, Al-C4, are not radically different from typical Cumberland, except in detail. Handles, instead of being flat in section are round or oval, making a very much smaller feature. There is also a marked tendency for handles to project above the level of the rim, this being effected in many cases by a definite protuberance on the upper surface of the handle. Something not unlike this has been noted in certain Fort Ancient pottery. I cannot see that it is essentially different from the sort of thing regarded by Kelly as diagnostic for an early period at Macon. The tendency for jars to be lobate or "melon-shaped" is present here as in typical Cumberland, but far more crudely effected. Decoration outlining the lobes is present only in one specimen, in very crude incision. Modification of jars into effigy forms by the application of animal features seems to be absent.

The remainder of Pl. IX shows a series of jar and bowl forms in polished drab. Again the familiar Cumberland specializations

are absent, such as the straight-flaring sided bowls and the particularly characteristic bowls with indented rim coil. Here instead we have a tendency for rims to be incurved, approaching the "seed-jar" of the Southwest. Two bowls with scalloped rims (Pl. X, A1-2), however, might fit very well into the typical Cumberland collection.

Plate X: Bottles are shown in Plate X, A3-C4. One may recall the scarcity of bottles in typical Cumberland ware and the fact that the few examples present were of the tall-necked "carafe" type. A marked contrast to this situation is seen in "Cumberland X," where the bottle seems to have regained its customary importance. The shapes run to medium necks with rather large openings. There is a tendency for shoulders to be rather high, with an occasional suggestion of carination. Bottoms are flattened or concave, with one or two examples of a well-defined dimple. Lobing is absent entirely. All these characteristics show a close relationship to the St. Francis Basin, particularly the Cairo Lowland portion of it. Various effigies are seen in D1-E2. Single specimens only, it is, of course, futile to generalize upon them. One might call attention, however, to the extreme crudity of the human effigies. E3-4, however, shows a very good owl effigy in lost color. Again this shows close similarities to the New Madrid section, both in shape and type of decoration.

In summarizing this small series of vessels, somewhat pretentiously designated as "Cumberland X", let me disclaim again any attempt to set up a classificatory division. Without some information on the sites from which this material comes, and the other types of
material associated with it, no significance whatever may be right-fully attached to the distinction. One cannot but feel, however, that a line of inquiry is suggested here, owing to the circumstance that "Cumberland X" material seems to exhibit closer relationships to other Middle Mississippi complexes, perhaps therefore represents the fundamental Middle Mississippi pottery of the Cumberland region, out of which the typical Cumberland ware arose through specializa-tion. This can be regarded as nothing more than an extremely tenta-tive hypothesis, but one which may be kept in mind in attempting to follow the distribution of that culture down the Cumberland to the Ohio and thence to the Mississippi.

5. Cumberland culture in western Kentucky and
the lower Ohio Valley.

In considering the ramifications of Cumberland culture outside of the Nashville Basin, our attention is directed downstream to that portion of the Cumberland that flows through Kentucky to its junction with the Ohio. In going up the river -- and again into Kentucky -- the culture, if one may judge from the rather meagre information presented in Webb and Funkhouser's "Archaeological Survey of Ken-tucky", appears to fade out rapidly after crossing the Tennessee line. Thus, when the statement is made that remains of the "Stone Grave Culture" may be more abundant in Kentucky than in Tennessee,

(1) Webb & Funkhouser, 1929, p. 5.
I take it that the lower Cumberland is the region indicated. Without questioning the truth of this statement, one is forced to observe that judging from published sources alone, the region appears archaeologically less rich than the Nashville district from the point of view of size and number of sites and certainly from the point of view of the cultural material yielded by these sites. For example the Duncan site, not far from the Cumberland and situated practically on the Kentucky-Tennessee line is said by Webb and Funkhouser to be "the largest and most interesting site" in Trigg county, which straddles the River as it enters Kentucky. This site was thoroughly explored (1) by Webb and Funkhouser in 1930. It yielded 62 stone graves -- the authors assert that careful search showed this to have been the entire extent of the cemetery -- three or four burial vessels and a few sherds. "The burials represented the typical stone grave culture of the Cumberland Valley and were characterized by the walls of limestone slabs, the extended skeletons, and the paucity of artifacts which (2) distinguish this culture." This "paucity of artifacts" may possibly be more pronounced in Kentucky than in Tennessee.

In Christian county, adjoining Trigg county on the east, Webb and Funkhouser investigated two closely related stone grave sites, (3) Williams and Glover, with like results. The material obtained was

(1) Webb & Funkhouser, 1931 b.

(2) Webb & Funkhouser, 1932, p. 376.

(3) Webb & Funkhouser, 1929.
sufficient to relate them to the Cumberland culture in Tennessee, but was not sufficiently rich nor abundant to suggest anything more than a marginal relationship to that culture. If there is any sense at all in the distinction between true Cumberland and "Cumberland X", the evidence presented in their reports seems to relate these Kentucky sites more to the latter than the former. One may see also, I believe, closer analogies with the Cairo Lowland section of the St. Francis Basin. The material, in other words, is not unlike what you would expect to find in a transitional zone between two centers of local intensification.

Proceeding down the Cumberland, Lyon county, which adjoins Trigg county on the north, and like it straddles the River, shows likewise "the typical material of the well recognized Cumberland River Valley culture, but does not show a large number of sites now recognizable." Evidently much excellent material has come from this portion of the valley, but most of it represents scattered and superficial finds. One cannot forbear to mention the beautiful shell gorget found in a stone grave cemetery near Eddyville which was destroyed in quarrying operations (fig. 36a). It has been frequently reproduced on account of its interest in connection with the game of "chungkee" and the stone discoidals that are thought to have been used in that game. The associations of the find, aside from its having come from a stone grave, are doubtless non-existent,

but there is no reason for questioning its affiliation with the Cumberland culture. If this be granted, it offers another evidence of the relationship between the Cumberland and Etowah, and, more remotely, with Spiro in Oklahoma. Otherwise there seems to be little or nothing to be said about this portion of the Cumberland, archaeologically terra incognita as far as one can make out.

Livingston county, which also spans the Cumberland, is bounded on the south and west by the Tennessee, on the north by the Ohio, ought to be one of the richest portions of the entire Mississippi valley. If so there is little information to show for it. Nothing is brought forward by Webb & Funkhouser that would tend to revise the estimate already put upon this lower Cumberland region generally. It is unfortunate that more information is not forthcoming. One would like very much to know whether, on reaching the Ohio, one has passed out of the sphere of Cumberland influence and into something else. Some light on this question may be gained by examining Webb's Tolu site in Crittenden county on the Ohio river not far above the Livingston county line.

(1) 

Tolu: This is a fair sized village site with three large, but low mounds, two of which were excavated. Owing to long continued cultivation the original shape of the mounds could not be determined. One of them proved to be a domiciliary mound with at least two levels of construction on which were revealed rectangular post-mold patterns. It was not possible to trace these out in their entirety, but the investigators were of the opinion that the structures were

of the "long-house" type. In one case there appeared to have been a double row of large interior supporting posts running the entire length of the structure. Thick laminated masses of charred grass or straw seemed to indicate some sort of thatched construction, though some of this material was imbedded in chunks of clay which showed impressions of wattlework. A feature of special interest was a large dome of fire-hardened clay, which was thought to have been some sort of altar. The second mound was purely mortuary, the sort of accumulation already noted in Fort Ancient and in the Spoon River Focus, in respect to which the term "mound" in the sense of a deliberate construction is perhaps inapplicable. Burials were without any sort of arrangement, simply jumbled together indiscriminately at various levels one above the other. Stone graves were not present, though the sort of limestone suitable for making them was abundant in the region. Bodies were extended in the flesh and were "almost without exception" accompanied by funeral offerings, often in the form of pottery.

No further digging was carried on in the village site itself, consequently nothing can be said about house types. The first mound, however, had been constructed largely of surface material and refuse so that a large amount of sherd and other material was obtained. In the case of artifacts other than pottery, nothing particularly significant of specific relationship with the Cumberland appeared. In general it is merely the sort of material that one might expect on any Middle Mississippian site. The answer to our question, therefore, must be sought primarily in the pottery.
Tolu pottery: Consideration of the pottery of Tolu is rendered somewhat difficult by the scheme of classification used in its description, and by the fact that Webb labored under the misapprehension that the several types of ware encountered represented more than one culture, though he was unable to produce any correlative evidence of stratification. It seems quite evident that what he had was merely a normal association of related types, the sort of thing that one may expect from any Middle Mississippi site. Thus if one might be permitted to take the necessary liberties with his material, the following types seem to be indicated: Plain Drab, Polished Drab and Salt-pan ware. The dominant shape in Plain Drab is the standard jar form, with the tendency observed elsewhere to cluster about two norms in size. The small jars, which seem to have been preeminently mortuary in purpose, are described as "heavy-walled", consequently there can be no question of a "Thin Drab" variant, such as was encountered in the Cumberland. This may or may not be significant. It will be recalled that the distinction was also lacking in "Cumberland X". The large jars are, so far as can be made out, similar to corresponding vessels in the Cumberland. Classified separately by Webb is a group of jars, similar to the above in every respect so far as I can see, except that they contain little or no shell tempering. A comparable situation is frequently encountered in Middle Mississippi sites, and simply shows, I believe, that

(1) Webb & Funkhouser, 1931a, p. 375.
temper cannot always be relied upon as a basis for classification. Jars are commonly lobate, with incised lines or parallel rows of punctations outlining the lobes. Lugs apparently predominate over handles in the large jars but are in the minority in the small ones. Handles are round or oval in section but do not protrude above the level of the rim, nor do they exhibit protuberances, such as seemed to be typical in "Cumberland X". Polished Drab differs considerably from the same ware in the Cumberland. Simple bowls have indented or nicked rims, but the indented rim coil so prominent in the Cumberland does not appear. They are also embellished with a series of parallel incised lines immediately below the rim, or a series of small nodes. Both these methods are rare, if present at all, in the Cumberland. Scalloped rim bowls are present in both, but those from Tolu show a closer similarity to corresponding vessels in the St. Francis Basin. The same may be said of the small series of fragmentary effigies, heads from vessel rims, etc. Here again Tolu shows its essential kinship with regions down the Ohio, rather than up the Cumberland. The presence of salt-pan ware is not significant either way perhaps though on the whole its importance accords more with the situation in southern Illinois and eastern Missouri than with the Nashville area, where it is present but not apparently numerically important. Neither redware, painted ware nor lost color is present at Tolu.

**Cultural position of Tolu:** On the basis of this extremely superficial analysis what can we say about the degree of relationship between Tolu and the Cumberland? First it may be well to see
what those best qualified to judge have said on the subject. Webb's
own conclusions are vitiated somewhat by his belief that the diversity
of pottery types indicated a mixed cultural affiliation. One point
I hope this report will make perfectly clear to wit, that in the
Middle Mississippi (and doubtless also in the Lower) just as in the
Southwest and any other region where pottery has advanced beyond
its elementary stage, the normal ceramic situation comprises a group
of associated wares or types. These may differ radically one from
the other in respect to factors of material treatment and, to a
certain extent, form, but will nevertheless exhibit a general
stylistic unity. Such is, I believe, the case of the pottery of
Tolu. In other words there is no need to look about, as Webb has
(1) done for various points of contact for the various types represented.
Thus Webb's tentative conclusion that the Tolu people were "a more
or less migratory group which cannot be positively assigned to any
(2) of the more definitely known cultures" is wholly unsatisfactory
because predicated on a desire to account for what he considered to
be an anomalous pottery diversity, which, far from being anomalous,
is actually the normal expectable situation in any Middle Mississippi
context.

In spite of difficulties over the pottery, however, Webb seems
to feel that the chief affiliations of Tolu are with the Cumberland,

(2) Ibid., p. 407.
a conclusion, which, so far as I know, has been accepted generally. For this he relies heavily on the "ceremonial" mound with its superimposed structures, the presence of flint hoes (2 in number), a single shell gorget of the "Nashville type", and the abundance of salt-pan pottery. None of these things, except the gorget perhaps, are exclusive possessions of the Cumberland. The type of construction indicated by post-mold patterns in the mound appears to be radically different from Cumberland construction so far as we know anything about it. Flint hoes and salt-pan pottery are both present in the Cumberland but not to the same extent as in southern Illinois and adjacent portions of Missouri. One might look more plausibly to these regions for the contacts with Tolu. So we come down, (as inevitably happens, whatever its detractors may say) to the pottery. Ridiculous as it undoubtedly is to generalize on pottery that one hasn't seen, I will nevertheless venture the assertion that, however closely related to the Cumberland, Tolu pottery is no less closely related to other centers of Middle Mississippi culture over on the main river, notably the Cairo Lowland section of southeastern Missouri. The extension of the Cumberland area to cover this portion of the Ohio seems to me, therefore, unwarranted at this time.

The lower Ohio: If the distribution of Cumberland culture cannot be said to extend up the Ohio from the mouth of the Cumberland, what about its distribution down the Ohio toward the Mississippi?

(1) Verbal information from Thorne Deuel, J. B. Griffin and others.
Here two important sites come into question, on both of which a great deal of work has been done and very little published. The first, the Kincaid site, on the Illinois side of the Ohio just below the mouth of the Tennessee, has been worked for a number of seasons by the University of Chicago; the second is the celebrated "Ancient Buried City", situated at Wycliffe, Kentucky just below the junction of the Ohio with the Mississippi, privately excavated by the owner, Col. Fain King for exhibition purposes.

*Kincaid:* My information on the Kincaid site can be stated very briefly, is so scanty in fact, perhaps it cannot be stated at all. The site is a large mound site, with a great many mounds, some of which at least are of the familiar domiciliary type. The careful technique employed in excavating these has resulted in considerable information in regard to house construction. The details need not concern us here, beyond noting that the roofs were thatched, the sidewalls of wattle-and-daub construction. This probably explains Webb's findings at Tolu, where both methods were indicated. The pottery seems to present a stronger case for Cumberland affiliation than did the pottery of Tolu, bowls with indented rim coil in polished drab being present, likewise decoration in lost color. As in the Cumberland I believe this is the only kind of painted decoration that occurs. If so, it is the more noteworthy

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(1) One of the special characteristics of Kincaid, according to Deuel is the presence in considerable number of irregularly shaped flat pieces of sandstone with steep beveled edge on one side. Deuel calls them "files" and suggests that they are the instrument used in notching the rims of these bowls.
considering how much nearer Kincaid is to the St. Francis Basin, which after all must be regarded as the principal center for painted pottery in the Mississippi valley. Lost color at Kincaid seems to occur in two types, black on a light buff or cream ground and black on red. There is, I believe, no slip. Shapes are bottles and shallow soup plates with decoration on the rim interiors. Designs seem to be mainly rectilinear patterns not unlike the sort of decoration applied to effigies in the Cumberland.

An exhibit of material from Kincaid at the University of Chicago is labeled "Gordon-Fewkes Aspect", which is another (and I think less happy) way of saying "Cumberland". When I saw this material in the summer of 1937 I had no reason for doubting the ascription. Now, with somewhat more definite ideas as to what Cumberland is, I should like to see it again. The evident importance of indented rim coil bowls and lost color decoration point strongly in that direction. However, it may be recalled that this type of bowl found its way into the Fort Ancient Aspect, so that strictly speaking it is not an exclusive Cumberland trait. Nor, as we shall see presently, is lost color decoration, which is fully as important in the Cairo Lowland section of the St. Francis Basin as in the Cumberland itself. I suspect that careful analysis would reveal the fact that Kincaid is no more closely related to the Cumberland than to the Cairo Lowland. In which case the only way in which it could properly be assigned to a Cumberland (or Gordon-Fewkes if you prefer) Aspect, would be to include the Cairo Lowland in that aspect as well. But in that case very likely the rest of the St. Francis
Basin would have to go in too, and with it a great portion of western
Tennessee and northern Mississippi. By this time you have got nearly
the whole Middle Mississippi Phase into one Aspect. A sample of
the sort of difficulty resulting from using the McKern system wrong
end to.

Kentucky's "Ancient Buried City": The King Mounds at Wick-
liffe have been described briefly in several papers by Col. and
(1) Mrs. King. The site is evidently a large and important one com-
mensurate with its commanding position on the bluff overlooking
the meeting of the Ohio and Mississippi rivers. Without going into
detail, which indeed would be impossible without further information,
the general affiliations seem to lie with Kincaid and perhaps Tolu.
As in the case of these other sites, and perhaps to a greater ex-
tent, before stressing any presumed relationship with the Cumber-
land, one would like to analyze the material on the basis of simi-
larities to the Cairo Lowland. It would seem to the writer quite
obvious that by now, having reached the Mississippi itself we are
outside the sphere of influence from the Cumberland and have entered
that of the St. Francis Basin, the final and perhaps most important
sub-division of the Middle Mississippi "phase".

(1) King, F., 1934, 1936.
King, Blanche. Recent excavations at the King Mounds, reprint