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A Study of the Artifacts of the Post-Columbian Indian Culture of the Southeastern United States

John Stouffer
Cornell College

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By JOHN STOUFFER

This paper is an effort to study and analyze some of the culture objects of the early American Indians of the Southeastern United States. The source of these is the A. J. Powers Collection which is presently on exhibit in the Museum of Cornell College, Mt. Vernon, Iowa.

Mr. Powers, the collector of this group of specimens, was a life-long resident of Mt. Vernon who developed a marked interest in archeology which he pursued intensively throughout his life. He traveled extensively about the country and in the region mentioned above, particularly the state of Georgia, gathered a great number of interesting objects. In 1900 Mr. Powers generously donated his collection to Cornell College with the following statement in regard to its origin:

> "Nearly all articles in this collection were collected by and for myself personally. This is especially true of all Georgian and Southern articles and it is to be believed that all are genuine except some of those from Canada. These latter may or may not be genuine. I regard them with distrust and therefore do not vouch for them. With this exception made, there is no doubt of the genuiness of other articles in the collection."

This collection contains a very wide variety of objects which, for my purposes, I have categorized as follows.

I. Weapons
   A. Spear and Arrow heads
   B. Celts and Axes

II. Implements
   A. Scrapers
   B. Net sinkers
   C. Mortars, pestles and grinding stones

III. Art objects
   A. Discoidals
   B. Ceremonial objects, ornaments and pipes
   C. Idols

IV. Pottery

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[1]This paper was presented to the Zoology Section at the 1951 session of the Iowa Academy of Science.

[2]The study is based on the A. J. Powers Collection to be found in the museum of Cornell College.

[3]The guidance and assistance of the late Dr. Charles R. Keyes is gratefully acknowledged.

It should be noted in connection with this list that there are not representatives of each of these from the Southeastern United States.

The dominant Southern Indians living east of the Mississippi at the beginning of the 18th century were.

> "The Uchees, lower, Middle and Upper Creek, constituting the formidable Muscogee Confederacy—the Yanasees, the Cherokees, the Chickasaws, the Choctaws, the Natchez and the Seminoles."[1]

I shall not have particular reason to refer to these again but have included them in the general interest of knowing something of the geography and the location of the various Southern tribes.

Arrow and Spear Heads

The American Indian Culture, as is well known, is representative of the Stone-Age level of civilization. Providing us with mute but widespread and prolific testimony of the nature and extent of this culture are the abundant arrow and spear heads distributed throughout the country. These are of many diverse types being different from one another in the material from which they are made, in size, shape and use.

The most popular material for these points was flint and quartz, which were selected because of their hardness. These substances were frequently brought from considerable distance where they were used in workshops for the manufacture of the implements. For instance, evidence of these workshops is found in regions of Georgia, showing considerable remains of partially formed points, broken points and chips, which are as much as one hundred miles removed from the source of such stone.

It is also noteworthy that the wide distribution of similar points supply us with evidence that trade existed among the aborigenes of our land. Certain of the early indian tribes which were strategically located close to the supply of raw materials probably seized upon the opportunity to become adept at the manufacture of these all necessary implements and were readily able to barter with other groups.

The Powers Collection, however, does not provide much evidence of this sort but is richly supplied with over 200 points of widely varying kinds furnishing a splendid opportunity for us to study this field of Indian handiwork. There is at least one sample of nearly every variety or form which the arrow head takes but I shall here endeavor only to describe some of the basic patterns as well as a few of the more interesting and striking pieces.

From Georgia there is a sample of the simplest type of point, that

[1]Jones, *Antiquities of the Southern Indians*, (New York, 1873), p. 2.

which takes the form of an isosceles triangle. This specimen is made of quartz and the long sides are approximately one and one-half inches with the short side one inch. It is three-sixteenths of an inch thick at the center and the tapering edges leading away give it varying degrees of translucency lending to it a unique beauty. The edges are not serrated and it is interesting to note that the terminal end is worn quite smooth, indicating that it was considerably used. All the many variations in the form of arrows and spear points are found to follow this rudimentary triangular shape.

A second type to be found in the collection is that in which the short side is semi-circular and the result is a leaf shaped object. This piece is also from Georgia and the material is once again quartz, with its size approximately that of the one just described above. The workmanship exhibited in this sample is much inferior, however, with the gross appearance being rougher and less balanced than many other specimens.

Still clinging to the triangular shape but with the short side concave instead of straight or convex, in order to facilitate its being fastened to the shaft of the arrow, we find a third type of point commonly known as the shark's tooth form. Once again it is very nearly the same size as the first one but is somewhat thinner being approximately one-eighth inch thick. This is possibly accountable for by the fact that the material is flint which is much more easily worked than quartz. Also, the edges are very finely serrated and Mr. Powers has described it as a war point.

An advancement over the simple indented form just explained is the type wherein notches are added to each side just above the base in order to provide anchorage for more secure attachment. One such sample found in the collection provides an excellent model for these. Its origin is not listed but is probably Tennessee. It is made of flint being two inches on the sides and one inch across the base which is markedly indented. The notches placed on both sides are about three-eighths of an inch from the base and one-quarter of an inch deep. The workmanship on this piece demonstrates considerable skill, particularly in the placement of the notches.

There are many other classifications of types of arrow heads which can be found in this collection and about which one might write in considerable detail, but such an exposition would go beyond the scope of this paper. As has already been indicated all are built on the triangular pattern and the many variations found merely attest to the skill and imagination of their fashioners. I should like, though, to spend a little space in the discussion of a few of the

particularly notable items in this group of spear and arrow heads.

Two of these are larger flint pieces which demonstrate very outstanding qualities of craftsmanship. One of them is three and three-quarters inches long, one and three-eighth inches wide, one-quarter inch thick and is very symmetrically formed, the sides gradually tapering to a very sharp point. The blade is sharp and finely serrated, presenting two keen edges which would serve to make this an effective weapon. At the base end it shows evidence of having had a projection which has been broken off, giving rise to interesting speculation as to whether there might possibly have been a handle attached in order for it to serve as a knife.

The second large point which exhibits similar and very excellent workmanship is four and three-quarters inches long, one and one-half inches wide and one-quarter inch thick. Its structure is much like that just mentioned with serrated edges and gradually tapered sides leading to a somewhat more rounded point. This is the largest point in the collection and apparently was for attachment to a spear.

An interesting variation in arrow types about which we encounter considerable information is that kind which is shaped with the edges beveled in opposite directions or formed in a fashion which gives it the appearance of being twisted. The purpose of this feature is supposed to have been to cause the arrow to rotate while in flight in order to stabilize it or possibly to cause a more violent wound upon entering the flesh of an animal, man included. There are two or three examples in this collection which appear as if they are representative of this very special kind of point. However, one would not be ill-advised to accept the possibility that these might have taken this shape more as a result of the lines of fracture which the stone followed when it was broken off from a larger piece of rock than from the design of the maker.

In his book, *Antiquities of The Southern Indians*, Mr. Charles C. Jones speaks of:

> "Perfectly formed arrow points less than half an inch in length."[1]

In the collection of this discussion there is a group of no less than twenty-five of these smaller points ranging in size from one-half to one inch in length. I cannot begin to do justice with a description of the remarkable beauty of these delicate specimens which have been so carefully formed from flint, quartz, jasper, and chalcedony. This fact coupled with the necessity of limiting my space impels me to devote time to comments about only a few of these.

One of the larger of this group is a particularly expertly made

[1] *Ibid.*, p. 256.

point which is one and one-half inches long, three-fourth of an inch wide and one-eighth of an inch thick. It has very keen edges and a particularly sharp point. Also, it is so accurately symmetrical one is amazed to think that it was done without the aid of accurate measuring devices. Adding to, and setting off the excellence of its manufacture, is the nature of the material from which it is made; a milky white quartzlike substance which, because of the thinness. is translucent and when held to a light for examination presents a very beautiful effect.

The second member of this group of small points is approximately seven-eighths of an inch long, one-half inch wide and one-eighth of an inch thick. Once again the most noteworthy feature about this specimen, apart from its being finely formed, is the stone from which it is made. Fashioned from smoky quartz, it has a handsome gray translucent cast with the exception of a narrow and entirely pellucid streak extending its entire length. This streak makes it appear remarkably like a piece of glass and is probably the sort of stone which led one early explorer to comment, in regard to arrows,

> "They were headed with pieces of glass which they had broken from bottles. They had shaped them neatly, like the head of a dart but which way they did it I can't tell."[1]

The third and last point from this group which I should like to describe is very nearly the smallest of the entire collection, although several others closely approximate it in size. It is no more than one-half inch in length, three-eighths inch wide and just over one-sixteenth of an inch thick. It is very accurately made for such a small object and has straight, keen edged sides tapering to a needle sharp point. The material this time is chalcedony and this translucent amber substance shot through with varying hues of brown, red and occasional black spots of "moss" give this piece the beauty of a semi-precious stone.

The utility of these very small points is an interesting study for us to pursue briefly. In one early account dealing with the Choctaws we find that they were placed on small arrows which were used by children in learning the skill of archery. They competed in games which tested this skill and were awarded prizes for their excellence. Or, more exactly,

> "He that shoots best gets the prize of praise from an old man, who calls him an apprentice warrior; thus they are formed by emulation, without corporal punishment."[2]

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[1]Lawson, *History of Carolina*, (Ruleigh, 1860), p. 99.
[2]*Travels Through Louisiana*, Vol. I, London, 1771, p. 306.

From another author speaking of the same Indians we discover that,

> "The young savages also use a very straight cane, eight or nine feet long, cleaved of its inward divisions of the joints; in this they put a small arrow whose end is covered one-third the whole length with cotton, or something similar to it; this they hold nearest their mouth, and blow it so expertly as seldom to miss a mark fifteen or twenty yards off, and that so violently as to kill squirrels and birds therewith."[1]

Thus, we see that the American Indian was familiar with the use of darts and the blowgun as well as the bow and arrow, particularly in his pursuit of small game.

Before turning away from spear and arrow heads I should like to observe that the points of the Southern Indians are considered to be more beautiful than those made by the Indians of the Northern latitudes. In this collection we find several miscellaneous points from such other states as Arkansas, Ohio and Iowa, but these are not sufficient enough in number to warrant the drawing of any hard and fast rule concerning such a comparison. However, it is noticeable among the points of this collection that, apart from the very small arrow heads described immediately above, there is little evidence to corroborate this. While it is true that there are several pieces from northern areas which are considered more rude than those of the South; there are also several others which compare most favorably with the samples from Georgia and Tennessee. This should also be qualified by explaining that this is based on a comparison of the workmanship they exhibit and not the material from which they are made; wherein those of the South quite markedly have greater variation and are more handsome from this standpoint.

Celts and Axes

The next group of specimens which commands our investigation is the one of celts and axes. This step leads into the first section of the second large classification of implements and other objects, namely that composed of pieces made from polished stone. In the preceding summary of the chipped-stone spear and arrow heads we were treating the Paleolithic culture which, chronologically, was followed by the smooth stone or Neolithic age. However, even as late as the post-Columbian times there was obviously considerable overlapping of the two types of civilization in the American Indians as becomes apparent with the briefest glimpse at their implements.

In addition to the two types of cutting tools just mentioned we find several variations which may be more accurately designated as adzes, hatchets, chisels, gouges and knives. It is thus readily seen

[1] *Concise Natural History of East and West Florida*, Romans, New York, 1775.

that we are dealing with those objects which were among the most utilitarian, and in fact indispensable, with which the Indian maintained himself.

The materials commonly used for these were greenstone, diorite or sandstone and the method of their manufacture is given to us in many accounts. It is the general agreement of these that the object was first chipped to the approximate shape desired and then carefully "pecked" to the more exact configuration. Finally, it was painstakingly rubbed and polished through several stages each progressively finer than the one preceding it. This has been accurately ascertained by the recovery of several such pieces in varying degrees of completion. That this process was tedious and time consuming we have first hand evidence in an account given by Professor J. D. McGuire, who undertook the making of an axe using only the stone tools of the aborigines.

> ". . . The pecking occupied 55 hours and 10 minutes which period, estimating the number of blows per minute at 140, would give over 460,000 blows required for the manufacture of the implement. This stone weighed, when first received, 7,625 Troy grains; the present weight is 5,143 grains; the loss therefore is 2,482 grains."[1]

Although in the Powers Collection we do not find any partially finished pieces we are fortunate in having a fairly representative group with diverse kinds of tools, varying material and different degrees of skill displayed.

The first among these is an interesting group of celts. The celt is what might be termed a transitional instrument which was apt to be used in several different ways. It was frequently hafted but gave way to the grooved axe when the savage mechanic discovered this method of preparing the blade for more secure attachment. Or, it was fastened at the end of a longer, more slender handle to be used as an agricultural implement. Finally, it might not have had any more attachment than a short bone handle, if anything at all, and became a hand tool for scraping, skinning and the manufacture of other objects.

The first thing that comes to our notice about the celts in this collection is their range in size. The smallest is scarcely two inches long, less than an inch in width and weighs little more than one ounce, while the largest is eight inches long, two and one-half inches wide and weighs two pounds, eight ounces. I have chosen only a few samples for the purpose of this exposition and they have been selected because of their origin in the South, particularly from Georgia.

[1]"The American Anthropologist", Vol. V., April 1892, p. 167.

The first of these is a very regularly shaped, medium sized piece made from greenstone. It is five and one-half inches long and two inches wide at the bit with gradually tapering sides leading to the one and one-quarter inch wide upper end. It is relatively thin, being just over one-half inch through, and has flat faces. This object was probably hafted as a hatchet and the bit shows evidence of wear. The most striking feature about the gross appearance of this object is the nature of the stone from which it is made. It is, as mentioned above, greenstone which is shot through with spots and flecks of gray giving it a very handsome mottled appearance.

A second hatchet-like weapon has almost the same dimensions as the one just described the only notable difference being in the way the sides lead to the bit. In the case of the implement mentioned immediately above the sides are straight giving the bit end a flared aspect as in Plate I, Figure 1. In this second piece, however, the widest point is an inch above the bit with the sides tapering in slightly as they come to it as seen in Plate I, Figure 2. Apart from this most interesting demonstration of the very subtle differences in the artistry of the various craftsmen we also note that in the flared celt with straight sides there is a greater tendency for the corners of the blade to break off, both of them being damaged in this particular representative.

Third in this group of celts is a sandstone tool. This is not a particularly outstanding object but I have chosen it as exemplary of tools made from this particular substance. It is some six inches long, three and three-quarters inches wide at the bit and has curved sides leading to a rounded point at the opposite end. It is relatively much thicker than the other specimens of this type, being one and one-half inches through between the centers of the faces. As a result of this thickness the upper one-third is nearly cylindrical in shape. Perhaps the best way to describe the gross appearance of this stone would be to say that if it were hafted it would have a likeness fitting of the popular conception of what an Indian tomahawk ought to look like.

Three final subjects from the group of celts have been chosen as interesting variations from the bulk of those which are found. The first of these is nearly rectangular in shape being five inches long, two and three-quarters inches wide at the bit and two and one-half inches wide at the opposite end. It has a dull blade that is about one inch thick, making it more ungraceful than most of those samples of this type of tool. An interesting feature about this object, however, is the fact that the middle of one face has a noticeable de-

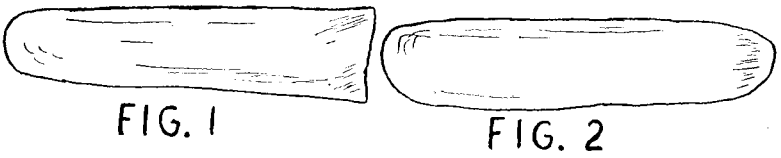

FIG. 1 FIG. 2

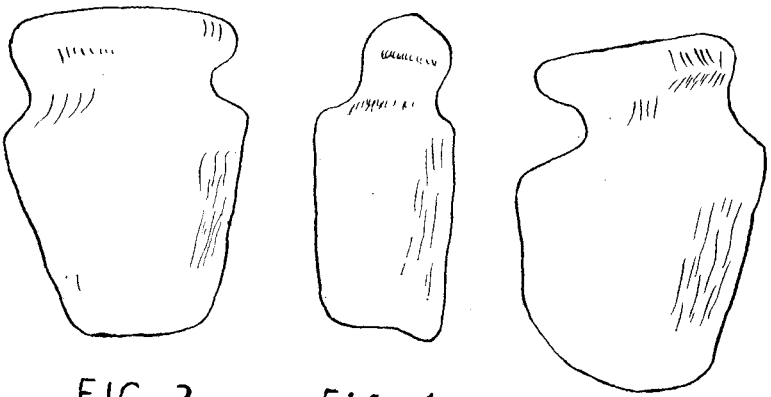

FIG. 3 FIG. 4 FIG. 5

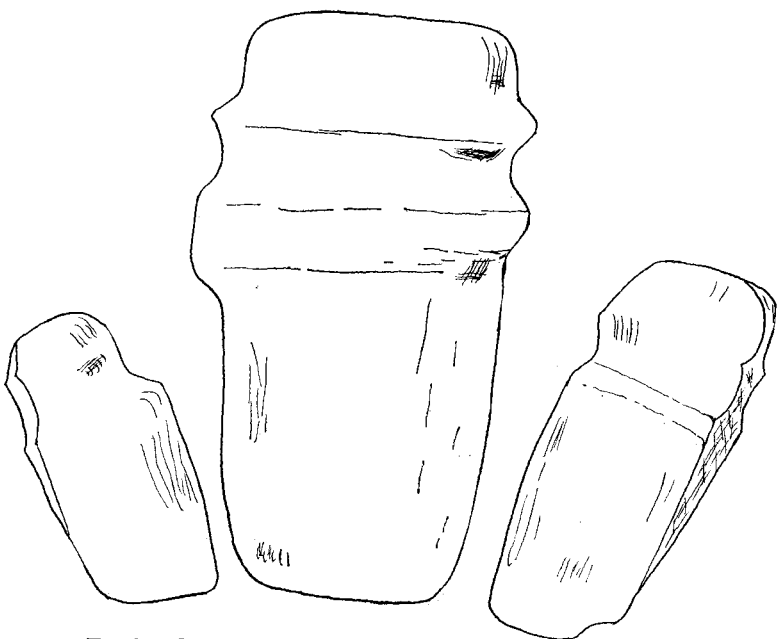

FIG. 6 FIG. 7 FIG. 8

PLATE I.

pression, indicating that it probably was fastened at the end of a handle to be used in the fashion of a hoe, or, perhaps on a shorter handle in order to be employed as a scraper for the preparation of various animal hides.

The last two celts I wish to discuss are very similar, being distinguished from each other only by the material from which they are made and a very slight difference in their shapes. Both are double-bitted fleshers and have two sharpened ends, one somewhat more narrow than the other. They are both approximately eight and one-half inches in length, two and one-quarter inches across at the wide bit and one inch at the narrow end. The distinct factor of the first one is its material which is uniformly light grey steatite. It does, though, have some scattered brown spots particularly toward the narrow end which indicate the presence of iron in the rock. The second implement is slightly different in structure as well as material. It is made from a dark grey, slatelike stone the layers of which give it the appearance of fine grained wood. The shape of this piece is noticably unique from the others of this group in that its faces are not quite symmetrical. One is, as is generally the case, slightly convex while the other is entirely flat. This would indicate that this tool had a particular use, perhaps, as has already been mentioned, in the preparing of skins and leather.

These are both carefully polished, have sharp bits and the balance of their form as well as the expertness of the craftsmanship they display, present them as two very handsome samples of this classification of subjects.

A second group of polished stone objects which is of singular importance and significance is that of the grooved axes. These are as widely distributed and played as important a part in the life of the Indian as the chipped-stone spear and arrow heads. It might be noted in passing that the particular value of these to the aborigenes of North America is demonstrated by the fact that many more of them are found on this continent than in Europe.

Much might be written concerning the grooved axe, but since there are very few specimens in this collection from the South, I have contained myself to only a few comments about them. They get their names from the fact that, in contrast to the celts, they have an indentation or groove passing around them which supplied the means for much more positive attachmennt to various sorts of handles. Once again the range in size is interesting and wide, extending from those which are little over two inches in length to the largest in the group which is nine and one-half inches long and weighs eight

pounds, four ounces. This latter axe is obviously much too heavy to have any practical use and probably was a ceremonial object.

The two axes I have chosen to write about have been selected as being representative to two variations of the many different forms that the grooved axe takes. Illustrations of a few more types are shown in Plate I, Figures 3-8 inclusive.

The first one is made from sandstone and is five inches long, two and one-half inches wide at the bit and three inches wide at the groove. The groove on this specimen extends completely around the axe and the center is only three-quarters of an inch from the top. The groove is flanked on its entire circumference by two ridges which are from one-quarter of an inch to three-eighth of an inch high at various points. The characteristics peculiar to this piece, as the description implies, is the fact that the groove is very close to the end opposite the bit and this groove with its accompanying ridges extends completely around the axe rather than leaving one edge flat as is so often the case with these objects.

The second sample is approximately five and one-half inches long, two and one-half inches wide at both ends and two inches wide at the center of the groove. Also, the center of the groove is one and one-quarter inches from the end; and the groove does not continue all the way around, leaving what would probably be the front edge flattened. The purpose for this flat edge was to provide a place against which wedges could be driven when the head was fastened to a handle in order to insure a more secure attachment. This groove is about one-eighth of an inch deep on the sides of faces and three-eighths of an inch deep on the edge opposite the flattened portion. The entire piece is nicely formed and polished with the bit showing evidence of having been repeatedly sharpened indicating that this bit of rock did good service for some primitive inhabitant of our land.

One additional point I should like to include before we turn our attention away from the axes concerns the manner in which they were hafted. They were frequently fitted into a stick which was split far enough down its length to accommodate the stone and which was of such diameter as to snuggly match the groove. If the head was the kind described with an "all around groove" it would be secured by thongs of leather or sinew laced alternately about the head and the handle on both sides of the bit in order to prevent the wood from being further split. If, however, the head had a flattened edge wedges might be driven between in at the handle in a fashion already mentioned in order to tighten its fixture. Another interesting

method of fastening the finished rock to a handle is given to us in an account by Lafilau who says,

> "They (Indians) select a young tree, of which they make a handle, without cutting it. They split one end and insert the stone. The tree grows, tightens around it, and encloses it so firmly that it hardly can be torn out."[1]

This method would appear to be useful only in a sort of long range production schedule but all the handiwork of our native predecessors points to the fact that they were a people of infinite patience.

Turning our attention now to the second classification of objects, that of the implements, we do not find this collection a very great abundance of material from the section of the country in which we are particularly interested. There are, however, sufficient numbers to warrant the inclusion of a few brief comments concerning them.

Scrapers

In discussion scrapers I shall omit any detailed description of those appearing in the group and confine myself to an explanation of their general form. They are in the chipped stone classification and range in size from three inches in length by three inches in width to six inches in length by three inches in width. They are generally irregularly chipped with one edge usually considerably sharper than the others. The materials used in their manufacture were mostly flint and obsidian. As mentioned immediately above, they are usually quite rough in their formation and it frequently appears as if they might have been utilized for this use from pieces which were planned to be worked into spear heads but which accidentally suffered an adverse fracture in the process of construction, rendering them too unbalanced for such weapon points. They found a wide range of application in the Indian's pursuit of livelihood, particularly in the preparation of hides and skins for use as clothing and leather goods.

Net Sinkers

These interesting objects assume a variety of forms from the very rudest sort to those painstakingly and expertly shaped. The simplest of these, of which there are no representatives in the collection, were merely uniformly shaped pebbles of suitable size which were grooved in such fashion as to be more easily secured to a net or line by thongs. A second type found in considerable abundance. but also not in this collection, are those which have been perforated in order to present a still better means of attachment. The holes in

[1]Lafilau, *Mours de Sauvages Ameriquans*, Vol. I, (Paris, 1724), Prof. Rau's translation, p. 110.

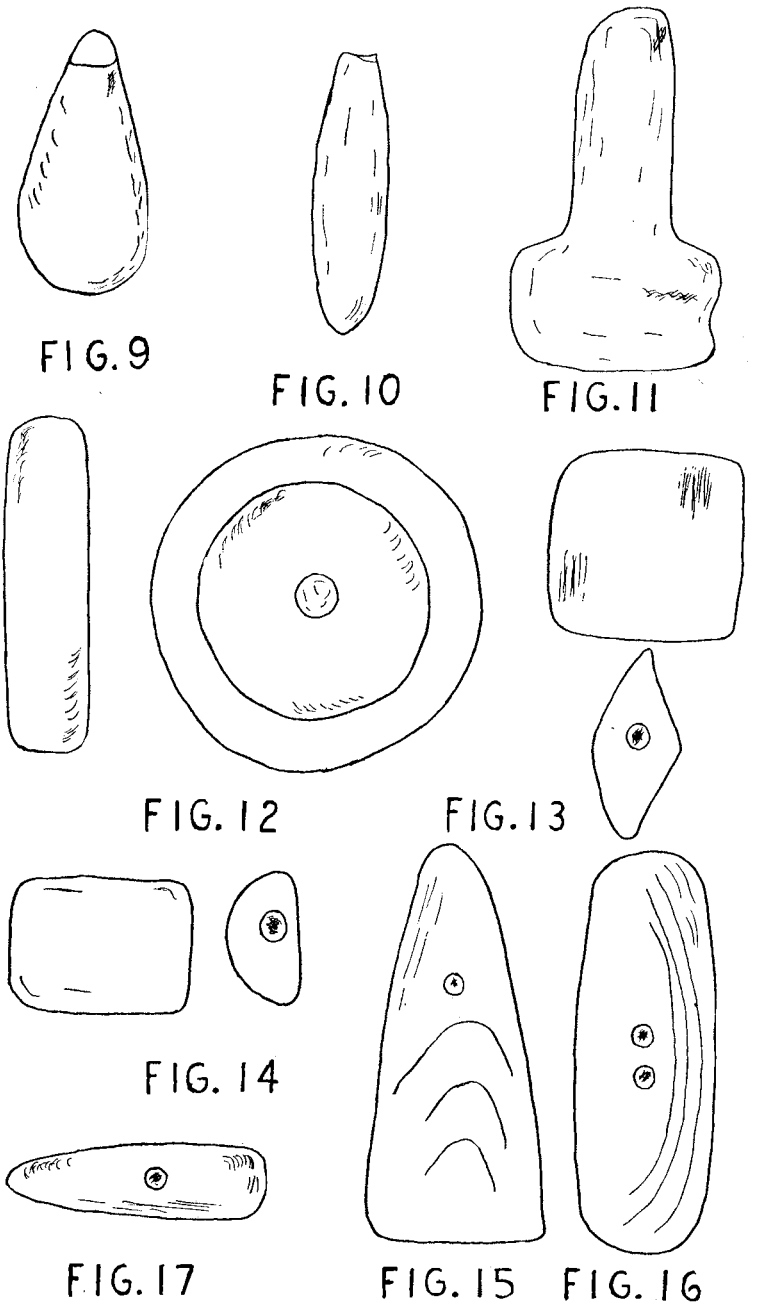

PLATE II.

these vary considerably in size and position being located sometimes in the center of the stone, sometime close to the periphery or anyplace between these two points. Also, the shape might be quite even and symmetrical or, on the other hand, often appears in a very irregular pattern. The third type of sinker, and the sort that appear in the collection, can best be described as plummet shaped. There are two of these in the group. The first one is made of sandstone and is two and one-half inches in length by one and three-quarters inches in diameter at the thickest point and weighs five ounces. It is made in the shape of a tear drop and about three eighths of an inch down from what would be considered the top there is a carefully etched groove around its entire circumference which provided a place for it to be secured by a string or thong. (See Plate II, Figure 9.)

A second and quite remarkable example of these objects which appears in the collection has a somewhat different shape. It is made of polished hematite and is three inches long by one inch in diameter at the widest point and weighs four ounces. It is more projectile shaped than the one described above, with a definitely pointed end. (See Plate II, Figure 10). Unfortunately, it has been broken off at the top end just above the point where the groove extended around its circumference. However, it is amazingly well formed to the extent that the naked eye can barely detect any imperfection in its symmetry. The painstaking care exhibited in the making and polishing of the piece makes it difficult to believe that it was used as a net sinker. I had rather think that it might have been a plumb-bob used in building to a perpendicular line or in finding the ground center of tepee poles. Perhaps even more likely it might have been used as a ceremonial pendent to be worn at special observances and celebrations.

Mortars, Pestles and Grinding Stones

This group is among the most utilitarian implements which served the Southern Indian in his day to day existence. This is true because of the fact that maize, or Indian corn, constituted a chief source of his subsistence. These tools provided the means whereby this cereal was ground into usable flour and meal. They also found application in the preparation of roots and herbs for medicinal purposes as well as any other crushing or grinding needs which might be encountered.

Mortars are found in several different forms. Frequently they were nothing more than rocks which were naturally hollow and became more so through continued usage. These might have been

of such size that they could more or less easily be transported from place to place. Occasionally, however, there are found large boulders with hollowed out tops which show evidence of having been used as mortars. These were communally owned and served the grinding needs of a whole group or village. Accounts written by early explorers also tell of wooden mortars which were made from section of large logs, but these of course have not survived the deteriorating effects of time and the elements.

In this collection we find only one example of the stone mortar but it is an especially excellent specimen. Its origin is the Etowah valley in Georgia and it is made of white Georgian marble. It is five and one half inches high, has an outside diameter at the top of eight inches and at the bottom of four and five-eighths inches. The inside diameter at the top is five and three-quarters inches and it has a bowl depth of three and three-quarters inches. The weight of this piece is twelve pounds and twelve ounces. A particularly noteworthy feature about this mortar is the fact that around the top there are found four equally spaced projections or "ears". These are two inches wide where they join the sides, one and one-eighth inches thick, by one and three-quarters inches high. They served as handles by which the object could be suspended and thus be used with a tri-pod for cookery, or if filled with something which was to be saved, it could be hung out of the reach of roaming animals and small children. The white marble used for the making of this subject not only provided a very durable material but also lends to it a beautiful effect which, coupled with expert craftsmanship, makes it a quite handsome piece of work.

Pestles and grinding stones likewise assume a wide variety of shapes. The latter should probably be considered as the more rude examples and discussed first. Frequently the stones used for these were no more than water worn pebbles of appropriate size which served without being altered in any way. These appear in considerable numbers and do not need further comment here. Occasionally such a pebble might be modified by polishing to the extent that it was quite circular in form with two flat or slightly convex faces. Such a stone could be more comfortably held would become a more efficient implement. In the Power's Collection we find three of this type of grinding stone which are all approximately three inches in diameter and slightly more than one inch thick. They are made of unpolished stone and their convex faces show evidence of considerable use.

Of those types of grinding tools which are most accurately de-

fined as true pestles there are two general forms. Unfortunately, there are no examples of these in this collection from the section of the country with which we are concerned. However, I shall include a description of one of each type drawn from samples appearing in the collection from other parts of the United States.

The first type is that which is shaped generally like a cigar. This long, cylindrically shaped stone looks like the primitive fore-runner to the modern rolling pin and is appropriately called the roller pestle. These were usually quite large and were used to crush maize, nuts, etc., which had been placed on another large flat stone. The example appearing in this collection belongs to the Oregon Indians from around Silver Lake in that state. It is made of lava stone, is twenty and one-eighth inches long by thirteen inches in circumference at the thickest point and weighs fourteen pounds and seven ounces. It can be readily seen that such an object would provide a very efficient tool for grinding and crushing.

The second type is that shape which conforms to the concept of what the usual pestle is like. That is, it is cylindrically shaped with tapered sides leading to a swelled portion which serves as the crushing head of the tool. The sample of this type taken for description is from the Ohio region. The handle portion is three and one-half inches long with tapered sides which, at a point just above the head, give a diameter at the thickest point of one and three-quarters inches. The portion constituting the head is irregularly circular and has a diameter of three inches. It is one and one-half inches in width, giving the piece an overall length of five inches. This object is smoothly polished but more from the effects of use than by design. Also, this form of pestle is the sort which was used in connection with a hollowed out mortar and would provide the most effective combination for very fine crushing requirements. (See Plate II, Figure 11).

The third general grouping of subjects which now occupies our interest I have classed as art objects. This is perhaps not the most satisfactory name that could be given to these but seems as close as any to the best title for those pieces which did not serve in specifically utilitarian purposes essential to the livelihood of the Southern Indians.

Discoidals

The first in this group to be discussed are the discoidals or flat, circularly shaped objects. These were used in the playing of different types of games as well as money and they involved a great variety in the nature of the disk-like pieces used. Because of the fact

that in the collection there are to be found two particularly splendid specimens of the larger stone discoidals I shall limit myself to a description of the game in which this sort of stone was used. Moreover, this is also appropriate in view of the fact that this particular pastime has been called the national game of the Cherokees.

The name of the game was chunge or sometimes chunke and it so absorbed our primitive predecessors that they would while away hours at a time in its pursuit. They also used it as a gambling device and often a participant might lose all of his worldly posessions in playing it. There are, in fact, instances where Indians have given up their freedom to become slaves of others. This game assumed several variations but they were all patterned after the same theme so I shall include only one description of the way in which it was played. The account given by Adair in his HISTORY OF THE AMERICAN INDIANS is as follows:

> "They have near their state-house a square piece of ground well cleaned, and fine sand is carefully strewed over it, when requisite, to promote a swifter motion to what they throw along the surface. Only one or two on a side play at this ancient game. They have a stone about two fingers broad at the edge, and two spans around; each party has a pole of about eight feet long, smooth and tapering at each end, the points flat. They set off abreast of each other at six yards from the end of the playground; then one of them hurls the stone on its edge, in as direct a line as he can, a considerable distance toward the middle of the other end of the square: when they have run a few yards, each darts his pole anointed with bear's oil, with a proper force, as near as he can guess in proportion to the motion of the stone, that the end may lie close to the stone: when this is the case, the person counts two of the game, and, in proportion to the nearness of the poles to the mark, one is counted, unless by measuring both are found to be at an equal distance from the stone."[1]

The description of the stones used in the game is of particular interest to us because of the two remarkable samples of them in the collection. They are both made of quartzite and are fashioned after the same pattern, each being hollowed out on both of their sides. (See Plate II, Figure 12). The smaller of the two is five inches in diameter and one and three-quarters inches through at the thickest point of the rim. The diameter at the outside edge of the hollowed out faces is three and one-quarter inches. At the center of the stone the thickness is one-half of an inch. The larger, and even more expertly made stone is five and three-eighths inches in diameter and is also one and three-quarters inches thick at the rim. The diameter of the hollowed out faces is three and one-half inches. The sides of the concave faces, however, are much straighter and the con-

[1]Jones, *op. cit.*, p. 341.

vexity much deeper leaving a thickness at the center of only one-quarter of an inch. The stone separating the two sides is so thin that it is translucent in several places. It is difficult to describe the beauty of these pieces. They are of a flecked brown color, smoothly polished and exhibit unusually expert craftsmanship in their nearly perfect, circular symmetry. This is emphasized by the fact that such discoidals are quite rare and there is evidence that they did not belong to a single person but were the common property of a family or group and were passed from generation to generation rather than being interred in burial mounds.

In addition to these especially interesting subjects we find several other specimens which are classed as discoidal objects. In this collection there is a large group of more than twenty-five circular pieces, almost all from Georgia, which range in size from three-quarters of an inch to nearly three inches in diameter. These are made from various kinds of polished stone and many of them from pottery clay. It is suggested that they were used for games or possibly as a medium of exchange. In any event, it is quite evident from the abundance in which they are found the discoidals played an important part in the culture of the Southeastern Indians.

Ceremonial Objects, Ornaments and Pipes

I have grouped these objects together for two reasons. First, there is considerable over-lapping in that many ceremonial objects took the form of ornamentation of some sort which might be worn, and also, most ornaments which were worn at times other than ceremonial occasions usually had some specific significance, frequently of a religious nature. Pipes were often used at special events such as council meetings and peace treaty meetings. The second reason for this grouping is the fact that there are not many representative pieces of these found in this collection.

The first of these pieces to be discussed is a small, perforated object which looks somewhat like an axe. It is one and three-quarters inches by two inches in length and breadth. It is five-eighths of an inch thick with the sides tapering away to sharp edges. Running through this thickened center portion along the shorter axis is a perfectly uniform and straight hole. (See Plate II, Fig. 13) This hole very probably serves as the means whereby this piece was placed on a wooden handle to do service as some sort of ceremonial mace or scepter. A second similar piece in the collection assumes a different shape. It is one and three-quarters of an inch through at the thickest point. Once again a hole has been drilled through the thickened portion, this time along the long axis. Its overall ap-

pearance, however, is quite different in that viewed from the end it is semi-circular rather than being like a double-bitted axe. (See Plate II, Fig. 14). This piece might very possibly have been worn by its being suspended from a thong. Both of these objects exhibit a high degree of excellence in their manufacture, particularly in connection with the holes which pass through them. These were made by drilling through the hard stone using a reed and sharp sand with water to increase the cutting effect. One cannot examine these specimens without marveling at the skill and patience with which their primitive craftsman fashioned them.

A second type of perforated stone object which we find in the collection is the broad, flat piece of stone which was worn as an ornament. These were of many different shapes and sizes. Some were circular, some triangular and some of simple quadrangular form. There are three such subjects in the Power's group but only one of them is from the region of our particular interest: the other two, which bear a brief description, being from the Ohio region. Both of these latter are made of slate and the first is roughly triangular in shape, four and one-quarter inches in length, two inches wide at the base and one-half inch wide at the apex. It has a uniform thickness of about three-sixteenths of an inch. The single perforation through it is one and one-half inches from the apex end and is located an equal distance in from each side. The diameter of this hole is one-eighth of an inch. (See Plate II, Fig. 15). The second Ohio region specimen is rectangular in shape and is four and one-eighth inches long, one and one-half inches wide by one-quarter of an inch thick. This piece is further different in that it is pierced by two drilled holes. They are located in the center of the stone, approximately one and three-quarters inches from each end and are separated from one another by one-eighth of an inch. They are three-sixteenths of an inch in diameter. (See Plate II, Figure 16). Both of these objects are smoothly polished and the character of the slate from which they are made lends them a very handsome appearance leading us to believe that they served as particularly significant adornment for their savage owners.

The collection's one sample of this type of object which is from the Southeastern section of the United States comes to us from Georgia. It is much smaller than the two immediately above and is made of sandstone rather than slate. Mr. Powers has judged it to be either an ornament or amulet. This piece is also triangular shaped and is two and one-half inches long, three-quarters of an inch wide at the base, one-quarter of an inch at the apex and one-quarter

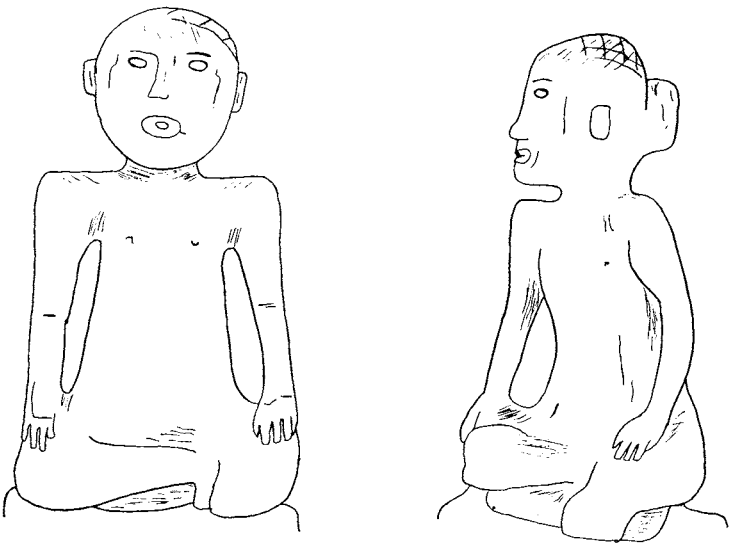

FIG 18
PLATE III.

of an inch thick. It has a single hole located one and one-quarter inches from the apex. This perforation is somewhat different than the others in that it has tapered sides. This results in its having a diameter on one face of five-sixteenths of an inch and on the opposite face of only three-sixteenths of an inch. (See Plate II, Figure 17). It has been very carefully made, the outside configuration and the placement of the hole make it a particularly well balanced example.

Another important and significant application which was made of the perforated objects was the use of them as beads and gorgets. Both the men and the women of the Southern tribes were fond of adorning themselves with these ornaments, expending much time and labor in the shaping, polishing and drilling of them. They were prized not only for their intrinsic beauty but, because of it, were used in barter and trade. In fact, a particular shape and size of bead actually served as the medium of exchange or "wampum". There are, however, no wampum beads in the Powers collection.

There are two different kinds of beads represented in the collection; those made of stone and, in greater numbers, those of shell. The stone beads appear to be only part of a larger string insofar as there are only eight of them. They are made of a fairly soft stone, brown in color which takes a smooth polish. Five of them are tubular in shape ranging in size from three-quarters of an inch in

length by three-eighths of an inch in diameter to one and one-eighth inches in length by seven-eighths of an inch in diameter. The three remaining beads are entirely irregular in shape and range in size from three-quarters of an inch across to one and one-quarters inches across. The holes in these beads have been drilled from two sides. That is, a hole was started and proceeded approximately half way through from one surface and then it was met by a second hole which was initiated at the opposite side. The result is that the perforation is smaller at the middle where these holes meet than at the faces where they begin. The diameters of the holes vary in size from one-eighth of an inch to one-quarter of an inch. These beads are smoothly polished and of a rich brown color, giving them a very handsome appearance.

The second group of beads is made of shell which was a most popular material for this purpose as evinced by the large numbers of them recovered from graves. The pearly marine shells provided a medium which was nicely worked and gave quite beautiful results. In fact, these polished shell objects were frequently mistaken by early explorers for ivory. In the collection there are one hundred and sixty-seven of these shell beads. They may or may not have constituted a single string, although they are all of the same general appearance. They are all tubular in shape and vary in size from one-quarter of an inch long by one-eighth of an inch in diameter to one and three-quarters inches long by five-eighths of an inch in diameter. They could readily be made into a matched string since the size change from small to large proceeds in regular graduation. The effects of time have reduced them from the original smoothly polished shell material to a chalky substance, but one can readily visualize their original lustrous beauty.

A final member of this group of perforated, decorative objects which we find in the collection is a shell gorget. These ornamental pieces were made by selecting one-half of the shell of a bi-valve and carving a design on the mother-of-pearl lining. Then, usually two holes were drilled close to the edge so that thongs might be attached to it whereby it could be suspended about the neck. These were frequently worn by priests and probably had some religious significance, although no one has arrived at any conclusion about whether or not the geometric patterns used held any specific meaning.

The single gorget in this collection is made from a shell which is of the characteristic oval shape being five and one-half inches across the greater diameter by four and one-half inches across the smaller. There is a one-half inch border surrounding the pattern,

which is made up of a variation of interesting geometric lines and patterns none of which appear to represent any specific objects. (See Fig. 9). At the edge of the pattern along a line parallel to the long diameter of the shell there are located two small holes. They are one and one-eighth inches apart and slightly less than three-sixteenths of an inch in diameter. They provided the means whereby this gorget was attached to a thong or string. The appearance of this handsome sample of jewelry indicates to us something of the artistic ability of the Indians of the Southeastern portion of our country and the interest they took in producing beautiful objects.

I should like to include a brief comment about pipes in connection with the art objects since they did play a very important part in the culture of these Indians. It has been said, in fact, that the pipes of the North American Indians possess an importance which raises them above the category of ordinary relics and claims for them a moral, religious and political value.[1] There was, in the original Powers Collection, a group of pipes but they have since gone to another museum and I have been unable to locate them. Mr. W. K. Moorhead, in his book *Prehistoric Implements*,[2] has used a picture of one of these for purposes of illustration because of its excellence and rarity. This, however, is the only record or description of the Powers pipes which is available.

For purposes of examination, pipes may conveniently be divided into three classes: Idol-pipes, Calumets, and Ordinary Pipes. The first of these, as the name implies, take the form of some sort of image. These are generally very ancient and do not properly belong to the Post-Columbian period, but do present a very interesting subject for study. The few pipes of this sort which have been found are of human figures represented in a sitting position holding the bowl on their abdomens and with upturned faces which give a forceful expression of a devotional attitude. They quite apparently are of decided religious significance and the view of some is that they are associated with the idea of sun-worship which might have been borrowed, along with agriculture and art, from the aborigines of the Southern part of North America or what is now Mexico.

The Calumets do fit in the period which we are examining and constitute those pipes which were used on ceremonial occasions. They are generally quite large and were exactingly carved from stone into diverse forms and shapes. As a rule they belonged to a

[1] *Ibid.*, p. 383.
[2] *Prehistoric Implements*, Moorhead, P. Cincinnati, 1900, p. 380.

whole tribe although occasionally they might have been the private property of a noted personage such as a chief or medicine-man who would use them when occasions of a political, religious, medicinal or warlike character might be observed. Many were given the shape of animal effigies, particularly birds. Some were ornamented with intricate patterns covering them and still others were simple shaped and given a highly polished, smooth surface. All of them are representative of the skill of their makers and give us an insight into the artistic development of these early savages.

The last groups, or Ordinary Pipes, are those which served the individual Indian in his habitual use of smoking tobacco. Indeed,

> "There is no custom more uniformly in constant use amongst the poor Indians than that of smoking, nor any other more highly valued. His pipe is his constant companion through life—his messenger of peace; he pledges his friends through its stem and its bowl, and when its care drowning fumes cease to flow, it takes a place with him in his solitary grave, with his tomahawk and war-club, companions to his long-fancied mild and beautiful hunting-grounds."[1]

These pipes were made both of stone and clay, generally the latter, and were usually quite small in order to be easily carried about. They were mostly quite simple in form, although some of the clay samples were given rather intricate patterns. As the above passage suggests, they had no special significance apart from the pleasure and relaxation they afforded their owners.

Idols

The last in this group of art objects are the idols. It would perhaps be more accurate to say idol as there is only one appearing in the Powers Collection. Much has been written about the idols and images of the North American Indians, but if we were to pursue the topic at all intently we would be taken far afield into a discussion of the interpretation of their meaning and an examination of Indian Religion quite beyond the intent and scope of this paper. I should like, therefore, to include only two brief comments concerning the background of these objects.

It is, first of all, generally felt by most authorities that the very early inhabitants of the land, antedating the period of our present examination, believed in the existence of a Supreme Being or Deity.

> "The presence of idols among barbarians may therefore be regarded as denoting not only the entity of a religious idea, but also the cooperation of something like art and imagination to impart definite shape and personality to vague conceptions of superior beings."[2]

[1]Jones, *op. cit.*, p. 410, quoted from Catlin.
[2]Jones, *op. cit.*, p. 415.

It is also believed that these savages were elevated above the level of rude superstition and did not use their idols in fetishism but accorded them reverence and devotion. The second comment I would make is in connection with the Indians of Georgia during the time of our particular interest. They too believed in a Supreme Being but did not engage in idol-worship. The appearance of carved statues among them apparently was to accord recognition of some special personage or hero, or, more probably, were remnants of preceeding civilization. This latter possibility appears to be the most satisfactory explanation of the origin of the example which is found in the collection and to which we now direct our attention.

This effigy is probably one of the most remarkable of its kind which has been discovered to date. It was found by a Mr. J. W. Sikes in the year 1886 in the bottom of a washout at the edge of Raccoon Creek in Bartow County, Georgia. Mr. Sikes held the image for sometime as a part of an exhibit with which he traveled about the Southeastern states, showing it at carnivals and celebrations, or by itself in towns and villages as a curio collection. In 1896 Mr. Powers purchased the image from Mr. Sikes and it has since resided in the Powers Collection.

I can scarcely hope to do justice to a description of this rare object. It is made of steatite and is carved to represent a male figure seated with legs crossed, a hand resting on each knee. The palm of the right hand is turned outward, the left toward the left knee. The facial features are clearly defined and appear to have been intended by the maker to express a seriously intent or devoted attitude. At the back of the head there is a stone projection which looks like a "bun" and was probably designed as a means by which this object could be carried or suspended. (See Plate III, Fig. 18). The following outline accurately details the dimensions of the idol.

Height: 21 inches
Width through ears: 6 inches
Width through shoulders: 9½ inches
Width through hands: 11¾ inches
Chin to top of head: 6 inches
Length of arm: 12 inches
Length of nose: 2 inches
Weight 56½ pounds

As has been mentioned above, this is an unusually rare and exceedingly fine example of early American Indian sculpture and it is a real privilege to have it as a part of the Powers Collection.

The final classification which I have included in this paper for examination is that of pottery. There are, however, no whole pots from the Southeastern section of the country and the sherds which

appear do not warrant a detailed description or discussion. Suffice it to say that the Southern Indians were proficient in the production of the ceramic art and the broken pieces in this collection give us something of an idea about the manner in which, and the material from which they produced their earthen jars, pots and other fictile ware. They also present a few of the many different intricate patterns with which these objects were decorated, and indicate that these designs were usually impressed on them. That is, a string or cord was used to impart the design into the clay while it remained soft and pliable as against the method of carving it after the material had hardened and just before it was baked. Further comment concerning these would lead me into laborious detailed description of individual pieces which would tax both the patience of the reader and limits of this essay.

In conclusion, I would like to say that the A. J. Powers Collection provides a rich opportunity to study a diverse group of Indian Artifacts, and that such a study impresses one with the industry, skill and artistry with which the North American Indian implemented himself for survival and continued existence in his primitive environment.

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