CHAPTER XIII

POTTERY

The manufacture of pottery by a primitive people is a good indication of the degree of their development. Pottery manufacture could develop only after man recognized his need for cooking utensils, water bottles, and like artifacts. During the period when man ate most of his food raw and was largely a nomad, he did not make pottery, but as his habitation became fixed or partially permanent, opportunity for family and village life made the development of the potter's art possible and as the advantage of cooked food began to be apparent, especially boiled food, early man learned of his own need for cooking utensils more elaborate than a flat stone or the half of a mussel shell. He satisfied this need in part at first by cutting vessels from stone, a slow and laborious task, acomplished with very primitive tools. Having learned by experience that the clay bed of his camp fire became very hard after long burning, he was doubtless led to the manufacture of the first very crude burned pottery. The earliest pottery was unburned, being only dried in the sun.

It has been pointed out by many writers on this subject, including Moorehead, Holmes, Moore and others, that the true potter's art had made little or no development north of the Ohio River in prehistoric times. The pottery of New England is quite crude and relatively rare. The Iroquois of the New York region had but little pottery beyond pipes and a few other very simple forms. The great center of the development of prehistoric pottery on this part of the continent lies in Tennessee and the states to the south. A region of very highly developed pottery lies along the Cumberland and Tennessee Rivers in Tennessee and Kentucky. The excavation by Moore on the Black Warrior River in Alabama and among the stone grave people of Tennessee has yielded such a numerous and varied collection of prehistoric pottery as is probably not equaled anywhere else in the world.

From this great center of cultural development, Kentucky has received large contributions, by way of influence in development, as well as by actual transfer of manufactured specimens.

It has been pointed out by many writers that the manufacture of pottery was woman's work, that the art of pottery construction and decoration was taught by the mother to the daughters, and that in prehistoric times woman was a chattel or slave, to be bought, captured, or sometimes stolen. It is doubtless true that women often thus were taken from one tribe or race into a people of quite different habits and customs. Under such circumstances it would be natural to assume that in her new home she would make and decorate pottery for her household after the manner she had been taught in her farmer home. This idea has been advanced to account for an apparent mingling of pottery forms in areas where many of these forms apparently should not be found. For this reason pottery artifacts are not usually regarded as definite and final proof of a given culture and in a given area. Such evidence is only corroborative.

In Kentucky most of the pottery discoverable today seems to be predominantly of the type designated as Fort Ancient Culture. Particularly is this true of the fragments of shards so common in village sites in northern and eastern Kentucky. Along the southern boundary Cherokee and pre-Cherokee influence is apparent and occasionally a perfect specimen is located with characteristic decorations of the zoomorphic forms. In the western portion of our state the water bottle seems to have been highly developed, if we may judge by the number of specimens discovered, and the excellent character of the manufacture. It is suggested that this development may be connected with the so-called River People who were probably Algonquin stock, and who were supposed to have been pushed westward and southward about the time of the Iroquois invasion of the Ohio River Valley. Certain it is that the typical water bottle of Western Kentucky is quite similar to pottery of western Tennessee and of Arkansas.

In the manufacture of pottery all tribes and races seem to have followed the same general principles. Harrington has given a most excellent report on the method used by the historic Cherokee in producing a product very similar to the prehistoric pottery of the south. Doubtless this method or one very similar was in general use among all early peoples.

Clay of a proper quality and color was selected and made plastic by kneading with water. A ball of clay after working was flattened into a disk of proper size and thickness, and made slightly convex. This became the oval bottom of the dish, bottle or pot. Clay was then rolled between the hands to form long cylindrical pieces about the size of one's finger and a foot or more long. These were coiled about the edge of the disk, pinched on with the finger to bind both together. By the continued process of coiling such pieces the vessel took form. The pinching process left the surface somewhat rough. This was brought to form by the use of a small paddle which when applied with skill kneaded the surface together into a compact whole and rendered it fairly smooth. That this method was used in prehistoric time there can be little doubt, as an inspection of some pot shards will disclose the successive layers used in manufacture, imperfectly united in the inside of the vessel where it was probably impossible to use the kneading paddle.

A very important item in pottery manufacture was to obtain a clay mixture that would stand firing without cracking. This required some material for "tempering." We know today that some form of lime is desirable and early man somehow discovered this very important fact and turned to a supply both abundant and easily obtainable in a pure state and convenient form. Mussel shells today furnish us one source of chemically pure lime. Early man ground mussel shell to a coarse powder, and mixed it with his clay and, this tempered the clay in the burning process, and enabled him to "hard burn" pottery that would not crack, and would be "water tight."

In the investigation of pot shards about old village sites it is easy to discover shards that show the result of use about the camp fire. Often such vessels used for cooking are covered with soot on the outside, as one might expect. This coating of soot by successive burnings has become as hard as the original pottery. This is not surprising, but it is a matter for speculation when one finds some of these shards also covered with soot on the inside. In a single example it might be considered merely an accident which occurred after the vessel was broken, however, when one

finds whole vessels with a soot coating on the inside one naturally seeks a reason.

It has been suggested that the Indian made use of pots to carry fire from point to point, and so placed live coals in such a vessel for preservation. This explanation might account for the soot on the inside of a few vessels, which may have been used yet on certain sites nearly all of the shards seem to have been blackened on the inside.

It is thought that Harrington's report of the custom of the early Cherokees in this connection was a common practice. When a pot was being fired, while it was still white hot during the burning, a handful of broken up corn cobs was dropped into the pot which, taking fire, covered the interior of the pot with soot. This was done to fill the pores and render the interior surface water proof, and prevented the food cooked in the vessel from soaking into the pores. The vast majority of pottery specimens found in Kentucky shows this interior sooting.

Another method used to give form to large and open pottery vessels seems to have been to weave a coarse basket of grass or reeds of the desired size and form. Clay was then plastered on the inside of such 'basket to the desired thickness. During the burning process, the basket was burned off leaving on the outside of the vessel the print of the woven grass and reeds. This gave to the pot surface a decoration characteristic of this method of manufacture. In the method of building up a vessel by coiling ropes of clay and paddling into shape, the paddle was often decorated by incised figures which were thus left stamped on the soft surface of the vessel. Occasionally a bundle of leaves, stems, or grass was used as a paddle which left its characteristic imprint in the surface and tells today the character of the paddle as well as the method of manufacture.

In the higher forms of pottery, considerable artistic ability was demonstrated in decoration. This usually took the form of serrating or fluting the edges of the vessel, the attachment of handles or lugs and in incising figures on the outer surface. In most cases of Kentucky pottery, the incised decoration is not elaborate, such as Moore found in Tennessee and Alabama, but consists in the main of cross hatched lines and dots worked into a conventional design.

While much pottery was hard burned by the maker, yet it was all of a primitive sort, and could not compare in lasting qualities to modern pottery made at high temperature and glazed to glass hardness. Most aboriginal pottery therefore, when exposed to the action of water, soil and frost soon decays and disintegrates even if it escapes mechanical damage or accidental breakage. There is to be expected therefore but little evidence of the potter's art, except in places where such artifacts have had unusual opportunity for preservation. Today the ancient village sites yield only broken shards partially decayed and with decorations all but obliterated. There appear to be only two sources where there is any hope of finding pottery in a fair state of preservation. These are the caves of the state, and such graves in ancient cemeteries as are quite deep, below the frost line. Occasionally there is found perfect specimens of pottery in mounds, but such are always in association with graves.

For the purposes of this chapter pottery artifacts may be classified as follows;

a. Large pots for camp cooking
b. Bowls and cups for household use
c. Water bottles
d. Mortuary vessels for food
e. Burial urns
f. Storage bins
g. Pipes
h. Beads and ornaments
i. Rattles
j. Pottery marker, dish covers, bottle stoppers
k. Colanders
l. Disks—Made of shards

There were doubtless many other uses to which the potter's art was put, but this list seems to include all the major uses revealed by a study of Kentucky pottery.

On many prehistoric village sites in our state there is to be found the ancient hearth and camp fire sites. Usually it is found to be a ring of large stones laid in a circle some 12 feet or more in diameter. Sometimes a considerable area is floored over with river pebbles or flat stones from the hillside ledges. Covering all is a heavy layer of ash indicating long and continued use of a camp fire—perhaps serving a whole village or at least many

lodges or families. About such an ancient hearth in and about the ash layer are generally to be found many shards of broken pots, along with the other camp debris.

Many of these shards, are rim shards, and have handles still attached. Often enough remains of the pot rim to give a fair indication of the size of the pot, from the curvature of the rim. It is not uncommon to find portions of pots about such old hearths, which would seem to indicate that the pot must have been two feet or more in diameter, and perhaps as deep. Such

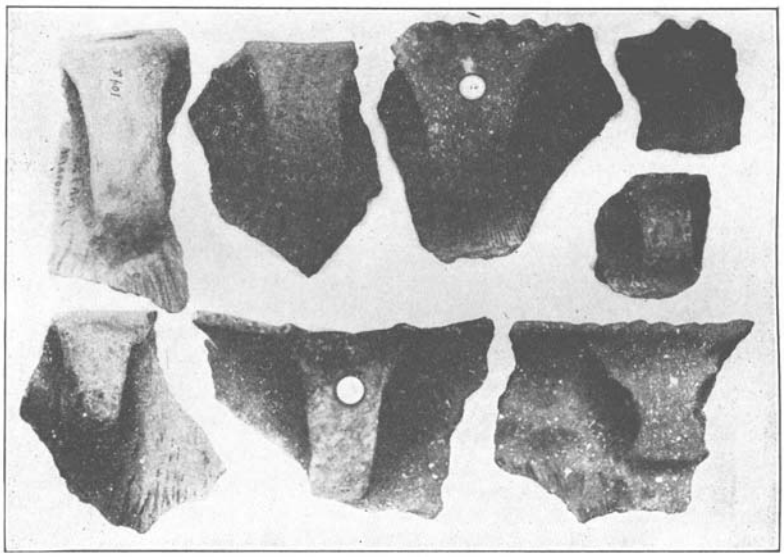

FIG. 159. POT HANDLES.
Various types of lugs or handles from ancient vessels. Most of them show the flakes of mussel shells which were mixed with the clay for tempering.

a pot could hold 25 to 40 gallons when brim full and it would appear would be well suited to serve as a camp kettle for a whole village. Figure 159 shows a collection of such rim shards with handles attached. These indicate a high grade of pottery, well burned, and artistically decorated. It is believed that no matter how well the handles were attached, the pot was too large and much too heavy when in use to have been lifted by these handles. Therefore the purpose of such handles was largely decorative.

A number of the body shard of these pots showing various incised decorations, some of considerable artistic merit, are presented in figure 160. These forms of decoration are typical of the Fort Ancient Culture, and have been found in quantity in Greenup County, Mason County and in smaller quantities in Scott County and Nicholas County, by the authors. These decorations are all of large form, and argue a large pot of a size suitable for a camp kettle. On these village sites which produce many pottery fragments similar to figures 159 and 160 there

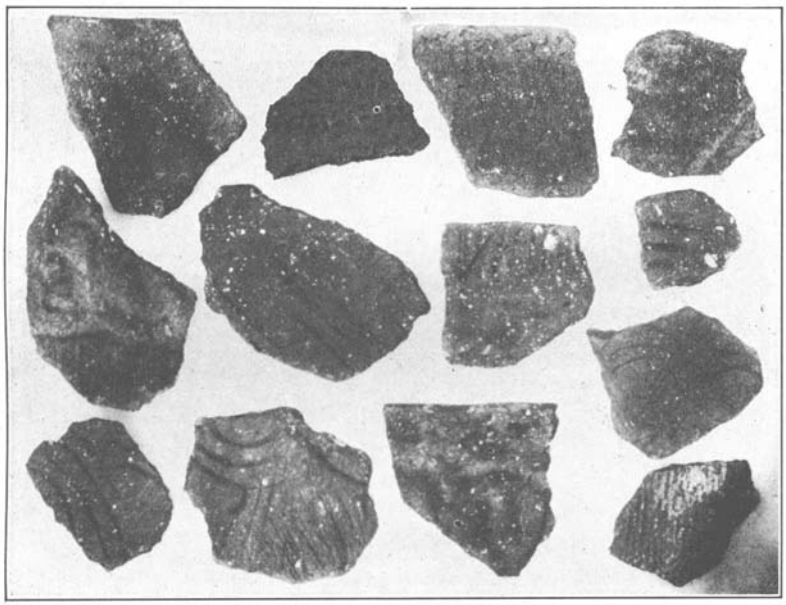

FIG. 160. SHARDS.
Showing a variety of types of decoration, some of rather interesting design.

are to be found also other types of handles and decorations for smaller vessels. The flat handles were pinched on rather insecurely. The circular handles had a hole pushed into the pot wall into which they thrust. This amounted to "riveting" them to their seat. Besides these types of handles Fort Ancient Culture used a variety of lugs for decorative handles.

In addition to the manufacture of large pots for general camp use there was an extensive use of smaller vessels—open bowls of a very simple form as shown in figure 161. These were

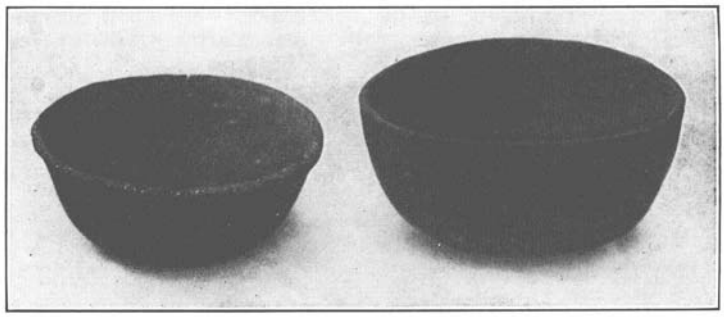

FIG. 161. BOWLS.
Probably for individual use.

evidently for individual use, made usually without handles or other decorations except at the rim which was sometimes notched, fluted, or decorated with dots or other small figures in relief. A group of these rim shards is shown in figure 162.

At Fox Field, (typical Fort Ancient Culture) is to be found a very unusua1 type of pottery—shards which appear to be the bottom of open bowls closely perforated. These perforations in

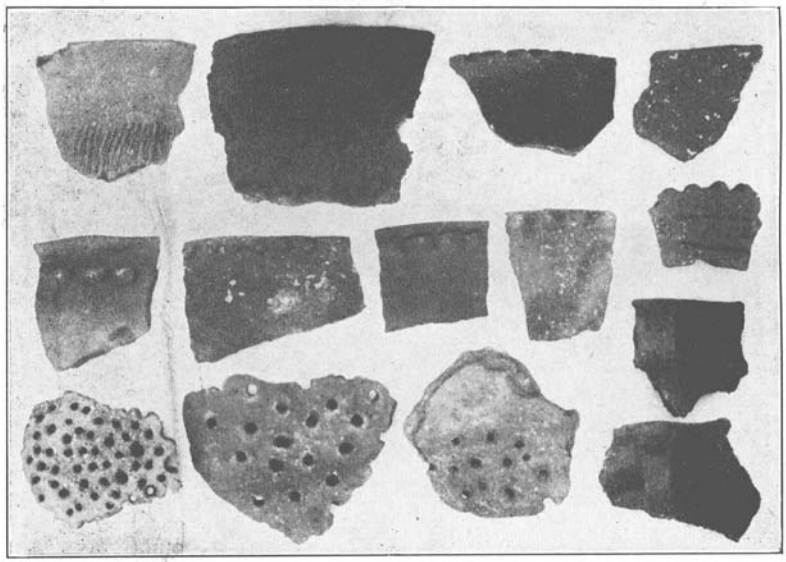

FIG. 162. RIM SHARDS.
The lower row shows pieces of colanders, some of the holes in which have been drilled after burning.

any individual vessel are fairly uniform in size but vary considerably in different specimens. The smallest is about the size of the lead in a pencil, while the largest is about the size of the pencil itself. These perforations were made while the vessel was soft, being punched out with a sharp pointed awl. Some of the specimens were punched from the outside inward, others from the inside outward.

Several specimens have been found which show that during the firing of these perforated vessels, some of the perforations became partially closed. These were drilled out with the flint drill after the vessel was burned, leaving the typical conical hole.

FIG. 163. WATER BOTTLES.
The large-mouth type common in western Kentucky.

These drillings were from both outside and from the inside in different specimens. It is believed this type of pottery colander is very unusual and so far as is known has not been reported elsewhere from the Eastern United States. So far no suggestion as to the use or necessity of such pottery strainers has been advanced. That they came into rather extended use at Fox Field is evident from the number of perforated shards still remaining on the village site.

Water bottles have been found in many places in Kentucky but chiefly in mounds in the western portion of the state. Figure 163 shows typical bottles of the wide mouth variety; other types have a very slender neck. It is believed that these are usually found on known sites of the River People, of Algonquin stock, or are in association with such sites. Such bottles were reported

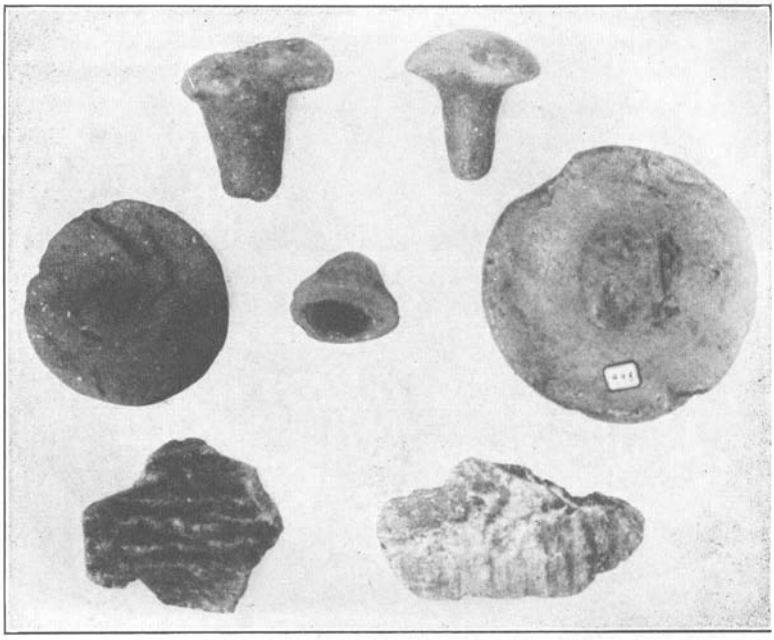

FIG. 164. UNIQUE POTTERY PIECES.
Showing water-bottle stoppers, dish covers and shards of soap-stone bowls.

by Harrington from Lenoir Island, Tennessee. The mouths of these bottles when placed in graves were usually closed by a pottery disk, if the mouth was large, and by a pottery stopper if the mouth was small. These covers and stoppers being more difficult to damage than the bottle itself have persisted on the old mound sites, and have often been found separated from all other pottery. This has lead some investigators to suggest that they were tools used in the manufacture of other pottery.

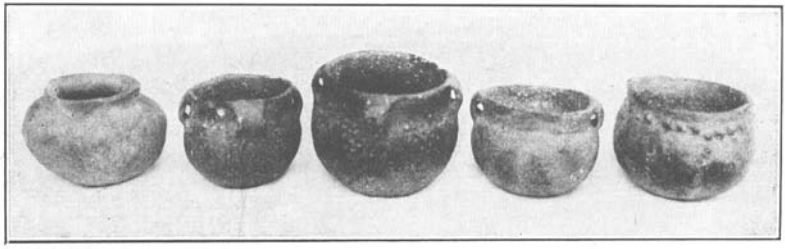

FIG. 165. MORTUARY VESSELS.
Which contained food for the trip to the "happy hunting ground."

A number of these covers and stoppers are shown in figure 164. The convex outer surface of some stoppers have been decorated with the exact pattern found on the body of the bottle. This fact has lead to the suggestion that they were pottery stamps, used for imprinting decorations on the soft clay vessel. It is ventured that most of these so called pottery stamps and pottery tools, are merely bottle stoppers, each being either smooth or engraved exactly like the bottle it was made to fit.

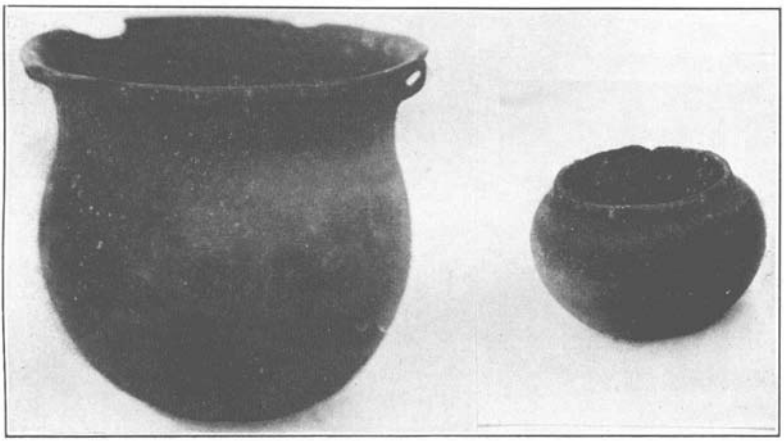

FIG. 166. POTS.
Types used by the cave-dwellers.

Throughout the state stone lined graves and grave mounds often yield perfect specimens of pottery which were evidently mortuary offerings. These vessels it is thought were made especially for this purpose and probably not used for any other. They are generally of the form of small pots of about a quart capacity or less, often decorated with two or four handles. Several are shown in figure 165 from various locations. Such a mortuary vessel from a stone grave at Fullerton Field was described in a preceding chapter.

Reference has already been made to pottery from the caves of Southern Kentucky. Figure 166 shows two pots discovered in a cave on Rock Creek near Sterns, Kentucky, by Armp Burks and J. L. Dobbs. The mouth of this small cavern had long been closed by a land slide but due to heavy rains a hole in the slide

opened in the spring of 1921. While these men were out hunting they discovered this hole and crawled into the cave. Signs of old fires were plentiful. The small pot was found on a natural shelf in the rock, in contact with the wall of the cave. So long had it been there, that the stalactitic material flowing down the wall had sealed the pot to its place, so that when lifted the outer surface of the pot came off, being left on the cave wall.

Over one of the old camp fires, a high flat stone had been supported in a slightly inclined position, and under one edge.

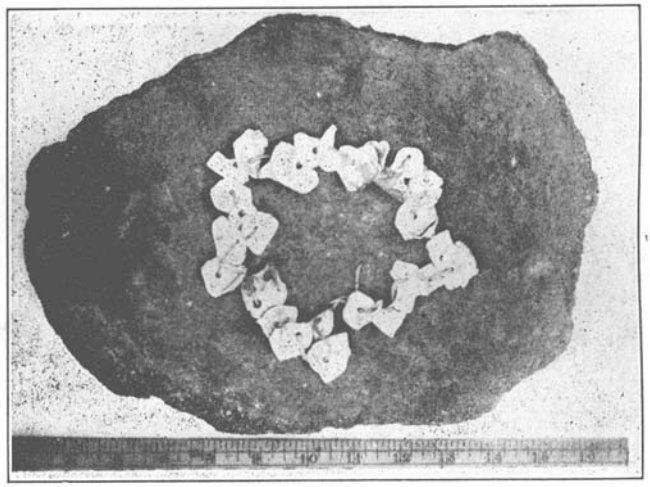

FIG. 167. A FIRST NATIONAL BANK.
Fragment of a pot containing wampum.

as if to catch the drip from a groove cut in the stone, the large pot was found. Burks disposed of this pot to Dr. Parrign of Monticello who had it in his possession for several years. No record is available as to its contents at the time found. It should be pointed out however that this pot appears to be quite similar to the burial urns discovered by Moore and others in the South. It is believed that this vessel was made originally for that purpose. Whether it was so used when found or not is not known. It is greatly to be regretted that the record in this case is incomplete.

Another form of large pot found on old camp sites is represented by exceeding thick shards, of very crude workmanship.

These shards are often an inch in thickness and seem in some cases quite unevenly burned. On the Ohio River bank below Lewisport, Kentucky, is a region where these large shards are quite plentiful. Every spring after the high waters had gone down, for several years past, portions of the river bank have caved in, exposing more of these broken pots. Some of them seem to have come from a depth of 10 or more feet down in the bank. It is observed, that the interior surface is rough and has a peculiar pattern. It seems to have been worked by the aid of a corn cob, and appears to have been produced by rolling a corn cob on the interior surface. This may be a suggestion as to the purpose of manufacture. From an inspection of the curvature of such specimens, it appears that these great pots were some four or five feet tall and perhaps three or more feet in diameter. It is believed that they were used as storage bins in the village where they were made, being placed some distance in the earth and covered over. Such shards of very thick pottery have been found by the authors on many distant and unrelated sites in the state.

One very interesting specimen of a large pot shard is in the possession of Judge John B. Wilson of Hartford. Judge Wilson reports that this shard, which is shown in figure 167, was ploughed up in an open field but in association with a quantity of broken bits of shell, each fragment drilled with a single hole and the edges worn down as if by long usage. This shard is about twelve inches long and almost flat, indicating that it was a part of a very large vessel. The shell pieces seem to have been stored in the pot for safe keeping so that this find may represent a cache of such shell fragments which were valuable either as ornaments or as a medium of exchange, in which case this pot may have been the prehistoric vault of the First National Bank of Ohio County, Kentucky.

It would appear that in the development of the potter's art the pipe appeared early, perhaps before utility vessels, but the mounds of this state have yielded relatively few pottery pipes. On certain sites belonging to the Fort Ancient Culture are found crude pottery beads and small pottery pendants. These are found in association with graves. Such beads are not found in

great numbers and it is thought that they were probably much more numerous than they appear to be, for it is very difficult to discover them when making excavations since they are not large and being the same color as the earth, one must search very carefully to find them. Undoubtedly many have been lost in such excavations, passing unnoticed by the observers.

Along the Tennessee and Cumberland Rivers in southern and western Kentucky, decorated pottery of the zoomorphic form reached a high state of development. Many very beautiful vessels representative of birds, fish and other animals have been found. With the exception of the wild turkey, the representations are generally of aquatic forms of life—the frog, turtle, fish and ducks being predominant. There were, however, occasional attempts to represent other animals in bowl form. Mr. Z. R. Williams of Uniontown has one pot well executed with animal head on one side and the tail on the other, the tail forming a handle. General Bennett H. Young figures a most beautiful ves-

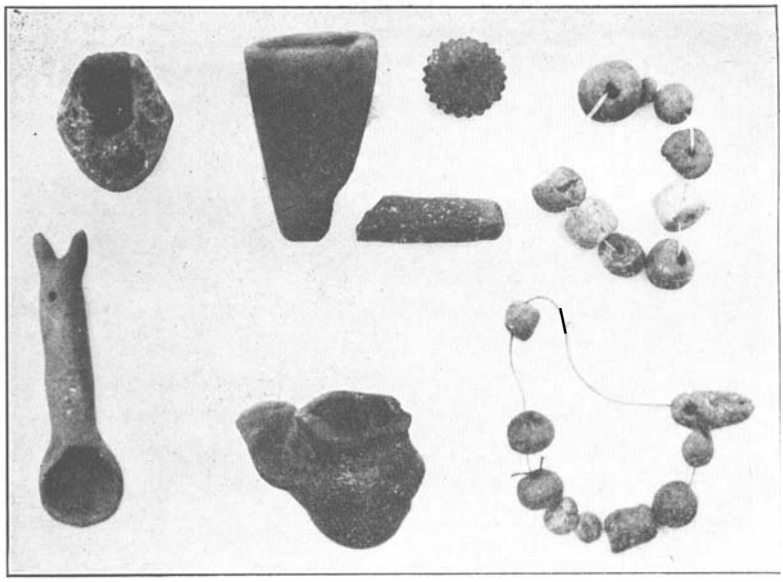

FIG. 168. MISCELLANEOUS POTTERY ARTICLES.
Including pipes, pottery beads and pottery markers. The third specimen in the upper row is a marker designed to be rolled along to decorate the surface.

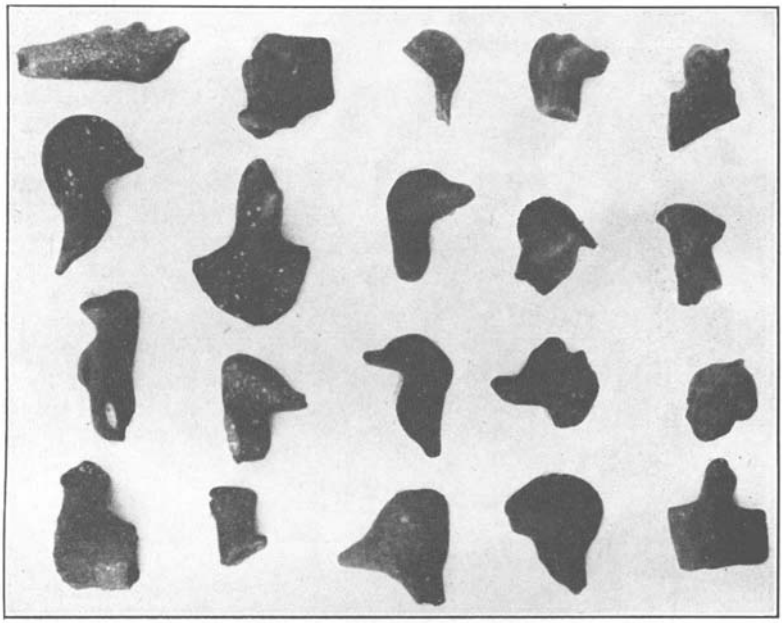

FIG. 169. ZOOMORPHIC POTTERY.
In which may be recognized the attempt to portray the heads of various animals and birds.

sel representing the wild turkey, the feet forming two of the legs of this pot.

Various sites in Kentucky yield evidence of zoomorphic pottery in the broken shards. Figure 169 shows a number of heads of animals and birds, with ducks predominating. So well executed are these heads, that many duck heads may not only be recognized as such but even the species determined. In this figure are also shown two heads of bears, and one duck head which is hollow inside. Into this hollow gravel has been introduced to form a rattle; it is supposed this rattle may have been an implement of ceremony.

The difficulty of obtaining a perfect specimen of prehistoric pottery at this time has become so great that in Kentucky, now, its finding is much more an accident than design. Each year more land comes under cultivation, ancient cemeteries and village sites are thus destroyed. Every year more caves in remote

places fall victims to the vandal who destroys all evidence of prehistoric man, while he searches far hidden "treasure." In his ignorance he does not know that the very evidence he destroys is his richest treasure.

Only recently during explorations in western Kentucky, a site was located showing much broken pottery, its destruction being recent. Upon inquiry, the owner of the land, ignorant of the value of such things from a historical point of view said he had "broken up this new land," last spring. The land he said

FIG. 170. DUCK BOWL.
A reconstructed piece showing an interesting design.

was worth about $40.00 per acre, and the corn crop he would raise he estimated at possibly $10.00 per acre above the value of his labor, if he was fortunate in getting a crop, and harvesting it before the fall rains caused the river to rise. When an attempt was made to explain to him the value of the evidence and specimens he had destroyed his statement was "When I ploughed I could hardly get the horses to hear me for the pots a 'bustin'." He had very thoroughly and completely destroyed a small but ancient cemetery, and broken a score of pottery vessels buried with the dead. To one interested in prehistory such destruction is a tragedy—often repeated in Kentucky—because of a lack of information on the part of the average man and a complete lack of any law looking to the preservation of prehistoric sites.

A duck bowl taken from a cave in Southern Kentucky is shown in figure 170. It is but one of several saved from the

complete wreck and destruction of what must have been an interesting discovery.

Sometime ago Mr. F. E. Bradshaw, cashier of the National Bank of Burnside very kindly notified the authors of certain specimens in the hands of a very eccentric man living near Burnside who had offered these artifacts for sale. Through the assistance and kindness of Mr. Bradshaw communication was had with the owner of a specimen, which finally resulted in a visit to Burnside in an earnest attempt to obtain the record of the discovery. It developed after a careful investigation that the discoverer of this cave, an ignorant and illiterate man, making his living by hunting and fishing for pearls on the Cumberland River had while hunting somewhere in Pulaski or Wayne counties came upon a cave but recently opened by rain and land slides. He had found evidence of ancient occupation and several graves which he had dug out. The bones he said, in good state of preservation, he threw out, finding several pots, which he also "shoveled out." After the work of destruction was about completed, he discovered a few beads, which he thought to be pearls. These stimulated him to further exertion so he dug through the whole floor of the cave looking for "treasure" which he said he had been told was always "hidden in pots."

Not being able to complete the job in one day he made several trips to the cave—in fact he "worked off and an all winter" unearthed many pots along with skeletons, but found no more pearls. On one occasion he took with him several boys who being too small to dig amused themselves by gathering the pots dug up and taking them to the mouth of the cave, setting them up at a distance and making them the targets in a rock throwing contest. The contestants were quite successful in breaking all the pots. This very ignorant man seemed to fear he had done wrong in "robbing the dead" as he said—so made no mention of his discovery till he learned from a friend that the three shell gorgets made from the carapace of the box tortoise, figured elsewhere might have same value as relics. He then sought assistance in selling what he had found of the pottery which he had regarded as worthless. He was able to obtain only the piece in figure 170 which could be restored. From him a quan-

tity of shards were obtained, taken from this cave, most of them showing recent breakage. A diligent attempt at restoration failed because there were fragments from many vessels, but not enough of anyone vessel to make the restoration worth while. However remains of two and possibly three "duck bowls" were in the shards obtained.

As distressing as such experiences are from the standpoint of the meagerness of the information in, and artifacts obtained from a site so rich in possibilities, the most disappointing part of this record remains to be told. The discoverer of this cave flatly refused to reveal its location, even in a general way. He first said it was six, then ten and finally eighteen miles from Burnside and at first said it was in Pulaski, then in Wayne County. Although offers were made to pay for his time allowing him to keep everything he found and not to disturb him in further destruction of its contents he refused to guide anyone to it, or allow a photograph to be taken, saying "the information was worth as much to him as to anyone and if he had anything to sell he would let it be known."

Such ignorance and unparalleled stupidity is difficult to imagine, yet it does exist in many places in our State off of the beaten track of progress, and it is only in such communities now that there is any hope to make unusually interesting discoveries.

Having seen such incidents as the above many times repeated in various ways, the prediction is ventured, that while there must still remain a quantity of pottery artifacts, still but little damaged, in the caves and other ancient sites of our state yet it is true that if the present ignorance of the historic value of such things remains, only a very insignificant portion of such artifacts, when discovered, will ever reach museums or the hands of private collectors where they will be saved from destruction.