

CHAPTER IV

NEOLITHIC MAN

Neolithic man lived in Kentucky. This does not mean that he was necessarily contemporary with men of the same culture in Europe or in any other part of the world, for men of various stages of development may be represented on earth at the same time and the same culture may flourish over a long period of years, but certainly there existed in this part of the Mississippi Valley a people who had not progressed beyond the stage of stone artifacts and bone implements, who doubtless used wood and skins and had learned the use of fire, who had developed ceremonies and perhaps religious rites, who buried their dead, and in other ways represented that stage of man's progress which we speak of as "Neolithic."

Who these people were we do not know—perhaps will never know—but certain it is that the occupation of America far antedated its discovery by modern Europeans. The Indians who inhabited the country between the Alleghanies and the Mississippi when that region was first invaded by the white man were not the original inhabitants of the country. Collins states in his "History of Kentucky:"

"Ancient monuments, of deep interest but imperfectly investigated—the remains of walled or ditched towns, of mounds, graves, temples, and teocalli—tell of a race of men who preceded the rude tribes encountered by Boone and Findlay. Their origin, language and history are buried in darkness which may never be dispelled; but the scanty vestiges left behind assure us that they far surpassed, in arts and civilization and knowledge, the savage tribes which succeeded them. They had worked the copper mines of the west, and were in possession of copper tools for working in wood and stone. Their pipes and household utensils, elaborately fashioned of clay, are far above the rude and clumsy contrivances of their successors; while their large fortifications, constructed of solid masonry, and artificially contrived for defense and convenience, show that they had foes to resist, and had made considerable progress in the military art. How long they occupied the country, whence they came, whither they have gone, whether they perished within the crumbling walls which speak of their existence, or were driven hence by a more hostile race, our knowledge does not enable us to decide. Time and future investigation may throw additional light upon the history of this ancient race. At present we can only say that they lived, that they struggled against their enemies, that they made progress in arts and civilization and that the places which once knew them now know them no more."

Indeed it is not impossible that the people of whom Collins thus writes may have been superior in many ways to the Indians who were found here at the time of the first white settlers, for nations and races have their rises and declines and often retrograde after reaching considerable heights, and we are more and more inclined to think that the historical American Indian was not as highly developed as his more admiring historians would have us believe.

However, we must go farther back than the immediate predecessors of the Columbian Indian to find the true neolithic stage and again the question arises as to who first inhabited the American continent. In this connection there are many interesting traditions, most of which have been discarded by scientists as improbable or even preposterous but which have been the source of many theories and speculations.

One of the oldest and most interesting of these is the famous "*Atlantis*" tradition which supposed the existence of an ancient island in the Atlantic ocean between Europe and America which would have furnished a stepping stone between the old and new worlds. Plato mentions this tradition as having been handed down by Solon who learned it from Egyptian priests. According to these priests the vast island had been submerged more than nine thousand years before that time, but accounts of its appearance and occupation were still preserved. The Atlantis tradition has been practically discarded but is occasionally revived by modern scholars who think they have found scientific evidences of the existence of this mysterious island, and quote various geological and geographical facts to support their views. Since Solon's story of Atlantis is nearly three thousand years old and the date of the sinking of the island is supposed to be nine thousand years before this date, the acceptance of the tradition would account for the possible discovery of America some twelve thousand years ago.

Another interesting tradition popularly known as the "*Phoenician Tradition*" is based on the account by Diodorus Siculus, who lived nearly a century before the Christian Era, of a great island in the Atlantic ocean many days' journey from the coast of Africa, which was discovered by Phoenecians who described it as a rich and wonderful land. Siculus describes

this land as thickly inhabited by a strange race who lived in stately buildings and enjoyed a high state of civilization. Supporters of the Phoenician tradition would argue that this land was South America, even at that early date occupied by the Incas or their ancestors.

A theory which has far more evidence to sustain it, however, than either of the preceding, is the "*Mongolian Theory*" which claims that the first visitors to America were Chinese or Scythians who made the journey from north-east Asia by way of the Bering Straits. In fact there is an account in Chinese history of a certain monk named Hwei Schin who discovered America in the year 499 and named the country "Fusang." This is not at all improbable as it would not be difficult for a venturesome sailor to cross the comparatively narrow channel with its numerous islands without being out of sight of land for any great length of time.

The "*Norse Tradition*" claims that America was discovered by hardy Norsemen not later than the close of the tenth century. It is claimed that Iceland was settled by Scandinavians in 860 and that this island was known to the Greeks several centuries before the Christian era. Since it is known that the Norsemen were great navigators from early times, it is not unreasonable to think that some of these pioneer voyagers might have reached the northern shores of this continent.

An Irish saga of ancient date is responsible for the "*Irish Tradition*" which credits the first settlement of America to some wanderers from Ireland who reached those shores by way of Iceland and established a colony somewhere on the Atlantic coast as early as 1029. This again is not impossible, as the Irish were good navigators and are known to have visited Iceland at an early date. If they could get to Iceland, they could probably have reached America.

The "*Welsh Tradition*" which gives the honor of the first settlements to the Welsh sometime during the twelfth century is also not without supporters and is discussed in a following chapter on "The Stone-Grave People." This tradition is based on the account of Prince Madoc which has been often quoted to support the theory.

A much discussed "*Egyptian Theory*" is founded on the claim that certain Aztec decorations and architectural designs are strikingly similar to the Egyptian motifs. Such a theory supposes the spread of early Egyptian culture to the new world and explains the first migrations to the Mississippi Valley as coming from the south rather than from the east or north.

The "*Northern Invasion Theory*" accounts for the settlement of middle America by a people of Eskimo origin whose antecedents are lost in the mist of time. Evidence of very early man has been found in the far north and a spread of such a people southward is conjectured.

"*The Ten Lost Tribes of Israel Theory*" was for a time the popular explanation of the ancestry of the American Indian. When it was found, however, that the Indians instead of having a single language related to the Hebrew, had hundreds of languages, none of which were even remotely related to Hebrew and many of which were unrelated to each other, and when it was found that the practices of the Indians while in some few instances did suggest the customs described in the Old Testament, were in most cases very peculiar to themselves and even peculiar to special tribes, this theory was soon abandoned. The ignorance of metals, the lack of domestic animals, the dislike of permanent habitation and the failure to appreciate agriculture were only a few of the practices which failed to agree with what would be expected of Hebrew descendants.

The "*White Indian Tradition*" was a tradition handed down by the Indians themselves. Many Indian tribes insisted that before the red man appeared, a white race inhabited this country and that it was this white race which had built the mounds, made the flint arrow heads and erected the fortifications with which the Indians were perfectly familiar but which they claimed were here when the red man appeared upon the scene. The Indians insisted that this white race had been entirely destroyed many moons before the arrival of Europeans. This was an old and well established tradition and there are some who believe that there must have been some facts to support it. The very weakness in the theory, however, lies in the fact that it is

an Indian tradition for Indian traditions are notoriously very untrustworthy. Even those traditions handed down by the Indians which referred to comparatively recent historical events, concerning which the facts are well known, are grotesquely distorted and exaggerated and it is hardly to be expected that traditions of events of the far distant past could be seriously considered as reliable.

These theories and others, however, can do little more than convince us of the fact that America was not after all "discovered by Christopher Columbus in 1492" as the school children have been taught to believe. In fact, it may not have been discovered at all, for as Colonel Durrett suggests in his very interesting volume on the "Earliest Visits of Foreigners to North America," if it were possible for the Phoenicians or the Irish or the Norsemen or the Welsh or the Chinese to have reached America, it would be equally possible for Americans to have reached Europe or Africa or Asia and that therefore the first migrations of the human race might have been from rather than toward this continent. The weight of evidence in this particular field is, however, much against this conclusion. The Eastern rather than the Western hemisphere appears to have been the original and ancestral home of man.

But even though some or all of the foregoing theories might be correct they would not solve the problem of neolithic man, whose culture was far more primitive than those of the supposed discoverers. The New Stone Age so far as it is now recognized reaches back thousands rather than hundreds of years, at least in Europe, and the crude artifacts of neolithic handicraft must far antedate the ships and weapons of early explorers. While, as has been stated, we have no right to presume similar dates for similar cultures, yet the evidence of prehistoric man in America even as far back as Pleistocene times is rather convincing.

In western Europe the successive periods of stone art—the Eolithic, the Paleolithic and the Neolithic—are fairly well known, and there the Neolithic is presumed to be rather recent, probably later than the last great glaciation which was apparently not more than 25,000 years ago. In America the last great

ice cap came down and dipped into Kentucky. The beginning of its retreat is estimated as about 30,000 years ago but the retreat of the ice was very slow and it may not have ended earlier than 10,000 years ago. It was during about this period that ethnologists believe that man was first on this continent but he may have been here long before that time.

Mr. P. E. Goddard, Curator of Ethnology of the American Museum, in a paper on this subject (*Natural History* xvii: 3 pp. 257-259, 1926) writes as follows:

"Ten thousand years have been mentioned as the time when men came to America. There are some reasons, however, for thinking that the time must have been longer. According to the old theory, after crossing to America by way of Bering Strait in the North, the Indians moved Southward, made their way down the Isthmus of Panama, and peopled all of South America as well as North America. Some time later they began to cultivate maize which was presumably a plant native to Central America. Maize under cultivation has changed its habit of growth so that it can no longer plant itself, but must be tended by man. In connection with its culture extensive irrigation grew up. After that cities and temples were built, and the higher civilizations of Peru, Mexico and our own Southwest developed. All of this required time. One would be rash to say that it could not happen in 10,000 years, but even more rash to say it did happen in that length of time.

"Still more convincing is the linguistic differentiation. North of Mexico, there are some fifty linguistic stocks or families, that is, fifty languages or groups of languages, so distinct from one another in their vocabularies, that no relationship can be traced. There are many more such families of languages in Mexico, Central America and South America. There are two theories which might account for such a diversity. A people with a single language may have come to America, and remained here so long that wherever a group became isolated its language came to show no relationship to any others, so completely did it become changed. The second theory is that wave after wave of migrating people came across, each with a different language, but leaving behind them in Asia no remnants who preserved the language.

"The growth of civilization in America and the linguistic differentiations, are strong arguments that America has been occupied by man during a very long period."

But even more convincing evidence has been furnished by the paleontologists who have shown that man-made implements and other evidence of his presence are found in strata which were laid down in Pleistocene times.

We have shown that fossils found in stratified rock are records of the life on earth during or previous to the time when that rock was formed. From these fossils we know that certain large mammals such as ancient horses, camels, bisons, mammoths and mastodons were in America during the Ice Age or

Pleistocene. Bones and teeth of these animals are found imbedded in geological structures, particularly gravels, clays and sands which were laid down during the glacial period. If man's bones were also found mingled with the bones of the horse and camel, for example, both of which animals became extinct at about the middle of the Ice Age, we would know that man was also here at that time, and archaeologists are constantly searching for such evidence. The results thus far are rather impressive. Objects made by man have been found in these sands and gravels along the edge of the glacial drift in a number of instances where there was no doubt as to the formation. Outstanding among these discoveries have been the artifacts reported from Trenton, New Jersey, the flints from the Ohio gravels, the articles undoubtedly made by man found by Professor Loomis underneath the remains of mastodons and mammoths in Florida, the worked flints found by Mr. Harold Cook under the fossilized skeleton of an extinct bison, and the arrowhead found under the scapula of *B. occidentalis* in the Pleistocene beds in Lagan County, Kansas. These discoveries have been verified by competent scientists and can not be disputed. Such evidence certainly tends to indicate that man was contemporary of the Pleistocene animals and if so his occupancy of this country may date back at least as long as 25,000 or 50,000 years.

While, therefore, the exact date of early man's arrival in Kentucky is still a matter of conjecture, and while his origin is as yet unknown, the fact that he was here is not to be denied, and from various sources we can arrive at a number of conclusions regarding his life, his habits, and his customs.

We know, for example, either that a large number of people inhabited Kentucky in prehistoric times for a short period or that a small number were here for a very long time. This is evidenced by the enormous number of artifacts which have been found in the State. There is scarcely a farmer boy in Kentucky who has not picked up in the fields from time to time the flint arrow-heads, worked stones, broken pottery and pipes which are so abundant. We assume that these articles must have been lost or discarded by their makers and it must have required either a large population or a long period of time to account for

ANCIENT LIFE IN KENTUCKY

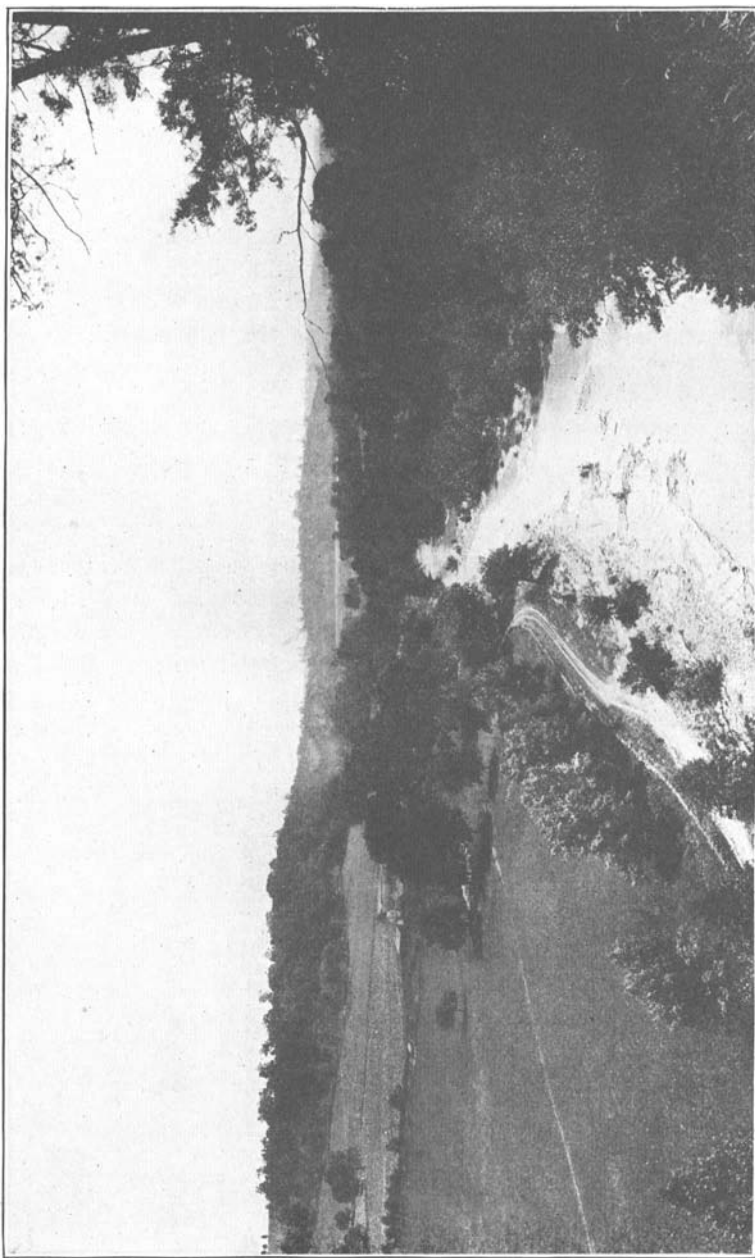


PHOTO BY W. R. JILLSON

FIG. 33. "GOOD INDIAN COUNTRY."
A typical Kentucky river valley.

the accumulation. In some parts of the state these articles may be found literally by the bushel. Fields that have been regularly plowed from very early times still yield more artifacts at each plowing. Collectors have secured tons of such material and almost every farmer has a few which he has picked up in the course of his routine duties and has brought to the house as interesting curiosities.

We know, too, what parts of the state were most thickly inhabited by these early peoples, and we admire their choice of homes for almost invariably the best "Indian Country" is found in fertile regions where the soil is well suited to agriculture and where in early days there were splendid forests. The river valleys were the favorite sites for villages and camps. This was doubtless because the streams afforded the easiest routes of travel and most satisfactory means of transportation. Also the rivers, of course, provided water and the opportunity for fishing.

Again we note that most of the camp sites are situated near elevations which afforded excellent views of the surrounding country. Such locations were doubtless of value for observation and signaling. We can judge something of the occupations of these people from the artifacts found around the campsites, in the kitchen-middens and in the graves. The arrow heads of stone and bone, the knives, celts, scrapers and fleshers indicate that they were primarily hunters. Fish hooks, net-sinkers, and scalers show that they were fisherman. Stone hoes and evidences of crops prove that they cultivated the soil. Of course, there were doubtless some groups who followed one vocation more than another but in general they lived as primitive folk have doubtless lived in all parts of the world. The special types of these artifacts will be discussed in detail in following chapters on stone and bone implements and weapons.

That they were warriors is indicated by the fortifications of various types and the war arrows found around these sites. Sometimes these fortifications were more or less elaborate and apparently permanent; more often they were crude barriers of stone surrounded by moats or ditches; occasionally they were placed in strategic positions on the face of the cliff or in the bend of a river.

The practice of fashioning clothing, probably from skins, is evidenced by the various artifacts which are believed to be for the working of skins and by the bone awls and needles which are commonly found, particularly in the graves of the women.

Their food and its methods of preparation are plainly shown by the contents of the kitchen-middens or "trash-piles" which prove veritable storehouses of information in this respect. The bones of the animals which have been eaten, the pottery in which the food was prepared, the hearths upon which the fires were built, the shells of mussels and the skeletons of fish, leave no doubt as to their menus. Apparently the commonest articles of food consisted of deer, bear, elk, and wild turkey since the bones of these animals are by far the most abundant in the middens. Fish and mussels were undoubtedly included in their diet. There seems to be no doubt, either, that maize and probably other grains were cultivated since the agricultural implements, the "hominy holes" and the mortars and pestles for grinding the grain are clearly designed for such purposes. We may assume also that fruits and nuts were easily available and in fact certain types of mortars with peculiar impressions and concavities suggest that they may have been used for cracking nuts. All of these articles are figured and described in other sections of this report.

It is even possible to imagine from the layers of the kitchen-middens, which were the "fat" and which were the "lean" years so far as food was concerned, for in some layers the bones are abundant and often still connected by cartilage while in others they are scarce and each is broken so that even the marrow might be devoured.

Ornamentation must have been common among both men and women. Among the most common of the artifacts found in graves are the beads of stone, shell and bone which may occasionally be discovered to the number of many hundred on a single skeleton. Gorgets and pendants are almost equally abundant, elaborate head-dresses of shells, jaws or teeth are not unusual, necklaces of bears' teeth and of shell are often found and more rarely beautiful and really artistic ornaments of polished stone, the uses of which are conjectural, are discovered. All such things could of course have been used only for decora-

tion. Hair-ornaments, ear-rings and carved shell and bone must be placed in this category and we can imagine that one of these ancient braves, fully attired in his full panoply of shells, bones, necklaces, gorgets and pendants would offer a sight which to say the least would be spectacular.

Most interesting, however, of all of the records which offer a clue to the life of these ancient peoples, are the remains found in the graves. Apparently even the most primitive of men have always had respect for their dead and the various types of burials afford a fascinating and almost inexhaustible field of research for the archaeologist. Different methods of burials and different types of graves are discussed in detail in later chapters but in general it may be said that modes of burial and objects found in graves furnish more information regarding religious and ceremonial practices than any other kind of data which is available.

It is easy to imagine that the burial of the dead was not an easy task in regions where the soil was hard or in winter when the ground was frozen when we remember that no picks or spades or shovels were yet a part of the equipment for digging. Probably all that was possible was to scratch out with a stone or stick a shallow grave and in it place the body. We may assume that certain primitive religious rites were performed in this ceremony and we judge that the position of the body—prone or in a sitting position, on the side or with the knees doubled up under the chin, with the head toward the rising or toward the setting sun, have some significance in relation to the particular form of worship represented.

The position of the body in the grave has been the subject of much speculation and discussion. It has been suggested that one of the common positions—that with the body folded up, the head forward and the knees under the chin—may represent the position of the child in the womb and this indicates a belief in a new birth. Another, and less fanciful explanation of this posture, is that the body was tightly bound to prevent the spirit from escaping to haunt its enemies. Sometimes the position in the grave seems to have a definite significance; sometimes the body seems to have been thrown in with no regard to position. Whatever may be the significance of the position of the body, or

whatever the seeming lack of significance, it has been our practice to always carefully note, photograph and describe it in our field notes. After the body was placed in the grave, certain objects were placed with the corpse—food in pots for use on the trip to the happy hunting ground, weapons to resist the enemies which might be encountered on the journey, implements and utensils for service in another realm of existence—all suggestive of a belief in a future life. In some cases it is evident that other articles—personal effects, emblems of rank or badges of office such as banner stones and boat-stones were likewise placed with the body. Lastly heavy stones were placed over the body so that the wild beasts could not disturb the remains. Very few types of graves, no matter how constructed, are not thus protected. Whether or not this represents the rude beginning of the idea of placing a monument over the dead, we do not know. Certainly we of today do not erect a tombstone as a protection against bears and wolves, but with early man such was doubtless the utilitarian purpose.

Certain Indian traditions would indicate that it was the custom, in the case of a noted warrior or other individual of high rank, to place additional stones or earth over the grave whenever any member of the tribe passed near it. Thus the grave would grow into a mound, and in the case of burials after a battle or a massacre or a pestilence, these mounds might be of considerable size. At any rate, most burial places, whether they be scattered graves, or mounds or cysts are usually marked by the characteristic stones.

One of the most discouraging aspects of the investigation of ancient graves in this state is the fact that so many of them have been destroyed by ignorant persons who because of the desire to find a few flints or the foolish fancy that they may discover a "pot of gold" or other valuables (a supposition which is, of course, most unlikely) have absolutely ruined the grave for scientific purposes. An incident in our own experience will illustrate this point. Some time ago one of our students came into our office bearing a human skull of a very interesting type. He stated that he and some of his companions had dug up this skull at the entrance to a cave. On looking at the skull we found to our surprise and disgust that all of the bones forming

the base of the skull had recently been broken away, thus making it impossible to get accurate cranial measurements and of course making it useless for scientific work.

On inquiry as to why the skull had been thus broken the student rather shame-facedly admitted that he and his companions had made it their practice to go to this cave to play poker each Sunday afternoon and they had discovered that by breaking out the base of the skull it made an excellent receptacle for poker chips—thus the mutilation. Further questioning brought out the fact that they had dug up the skeleton of which the skull was a part, but had no idea as to the orientation of the grave with respect to the points of the compass; that they had thrown out the bones but had paid no attention to the position of the body; that they remembered having found some "old pots" in the grave which pottery they had set up on stumps and broken with stones in a marksmanship contest but could give no description of them; that they did not look for flints or shells or other artifacts. We suspect that this episode is not unique in Kentucky and that many valuable discoveries have been prevented by just such performances.

The examination of a grave is not an easy task. The plane-table map must be made with accuracy; the covering rocks and stones must be removed with great care; the position of the soil layers must be recorded; the actual removal of the earth around the bones must be painstaking not only because of the danger of injuring the skeleton but to insure the discovery of such small objects as shells and beads which often are mixed with the earth; the bones usually must be treated chemically before removing if they are to be preserved since often they will crumble to dust at the slightest touch after a short exposure to the air; the skeleton must be photographed from at least two positions if it is to be again placed in the same posture in a museum case; lastly, if the bones are to be taken away, a careful check must be made of those of every part of the body and they must be handled and packed with unusual care. Naturally such work must be done with other tools than a pick and shovel and by other hands than those of an unskilled laborer.

The uncovering and examination of the skeleton gives us the last and the most important of the information regarding

these early inhabitants of our country. The particular types which seem to be distinctive in certain regions are discussed under other headings in this report but some general facts may be here mentioned. First, there is great diversity in the skeletons and it is apparent that we are dealing with several quite



PHOTO BY A. S. HENDRICKS

FIG. 34. A NEOLITHIC MAN.
Skeleton in typical position in grave.

distinct types. The skulls show variations from distinct dolichocephalic to decided brachycephalic and include deformities and malformations of various sorts. This is not surprising when we consider that we are probably dealing with individuals of various ethnological groups and that while some of them are undoubtedly very old, others may be the remains of comparatively modern Indians.

Second, none of them are large in stature. We have not yet found a skeleton, out of over a hundred exhumed, which represented an individual as much as six feet in height. Apparently the prehistoric people were not a large race. Curiously enough, this is in entire disagreement with popular ideas on the subject. We are constantly being informed of "giants" which have been excavated at one place or another. Investigation always shows that if anything they are below average size. A common report is the finding of a skull with a lower-jaw so large "that it will slip over the chin of an ordinary man" in which the fact is overlooked that a series of "V"s all of the same size, will "slip over" each other indefinitely. Apparently the story of the finding of an ancient skeleton is not impressive unless the skeleton is of "unusual size" and it is usually so reported in newspaper accounts. In fact, the first remark of onlookers who see an exposed skeleton in a grave is generally to this effect: "My! Isn't he a big fellow!" when in truth the bones may be of an unusually small individual. There must be something about a skeleton in situ which gives the layman an exaggerated idea of its size. The next remark of the interested spectator is usually a speculation or a question on how long the individual has been buried—one of the most difficult of all questions to answer.

However, if the history of the particular region in which the graves are found is fairly well known from the date of the settlement of that part of the state; if the graves have long been considered by the oldest settlers as "Indian graves;" if the graves contain only flint or bone artifacts and typical ancient pottery with no indication of objects suggesting the workmanship of the white race; if the earth has evidently been undisturbed for a very long period; and if the position of the body is characteristic of the "Indian" burial, it may be assumed that the grave is at least "prehistoric." Beyond this it is dangerous to speculate.

The state of preservation of the bones apparently means but little. We have seen skeletons buried in ash-beds or in shell-mounds in well-drained elevations in which the bones were in a most excellent state of preservation, although undoubtedly very old. On the other hand, skeletons in the wet black humus of poorly drained low-lying valleys are often so rotted as to be

almost unpreservable, although nothing about them would indicate great age. Apparently the location of the graves, the type or soil, the drainage and many other factors determine the length of time during which they may remain preserved and the variation between the extremes is very great. We are inclined to think, also, that the very crudeness of the early burials in shallow graves, usually in well drained soil, without coffins and often in wood ashes or salt-peter deposits tends toward long preservation, while on the other hand, our modern methods of burial in deep graves where the soil often retains much moisture, in tight coffins and at a depth where the temperature may be favorable to bacterial action, is conducive to rapid decomposition.

It has been noted, for example, that skulls (which are usually full of earth and retain much moisture) are generally the most decayed of all of the more compact bones of the skeleton. Whatever the reason may be, it is certain that some of the skeletons are very old, but whether they represent pre-Columbian Indians or individuals who lived much longer ago than that period is extremely difficult to state. It is thus not at all easy to determine which of the various cultures represented are contemporary and which are considerably removed in point of time. In the case of the fairly well known groups such as the Fort Ancient and the Hopewell in the Mississippi Valley, such time intervals may be judged with some degree of accuracy by the intrusive burials and by the types of artifacts, but even with such data we must proceed cautiously in drawing our conclusions.

THE CULTURE PROBLEM IN KENTUCKY

When one considers the vast amount of information which has been gathered relative to prehistoric man in the Ohio River Valley and southward, and attempts to organize this information racially and chronologically, one is overwhelmed with the magnitude of the problem, especially as he comes to understand that many different peoples, having different customs and degrees of development and probably quite different origins, have lived over large and generally overlapping areas of our state, at perhaps widely separated periods.

The term "*culture*" has come to be used to designate a distinct race or group of races having a common origin, certain

well defined specific characteristics as to customs and manner of life, a distinct degree of development, characteristic artifacts, and a continuity of occupancy of some distinct area. In Kentucky there are perhaps discernible as many as six or seven groups which might deserve the name of "cultures."

Mention has been made of the so-called "Mound-Builders," originally thought to have been a distinct race or culture. Now the name has come to indicate a rather common practice of many people rather than a specific race. As has been explained, in the Ohio River valley there are located the greatest monuments of prehistoric man to be found anywhere in the world. These mounds represent many types which will be discussed in detail in a later chapter. The intensive exploration of these prehistoric sites in Ohio, Indiana and Kentucky by Squier and Davis, and later by Moorehead, Mills, Smith and Moore, have led to the identification of certain well established cultures in Ohio and Indiana, which in some cases extend into Kentucky.

THE FORT ANCIENT CULTURE

The most notable of these cultures is that denominated as the "Fort Ancient." This very numerous and powerful people are responsible for the Great Serpent Mound in Adams County, Ohio, and Fort Ancient in Warren County, Ohio, together with a great number of other prehistoric sites. In fact, of some 3500 sites in Ohio, more than half are attributed to the Fort Ancient culture. This culture by no means represents the highest stage of development of prehistoric man in this area, but so numerous are its remains that its possessors must be regarded as a vigorous and dominant people. They made very crude pottery, used characteristic triangular arrow points, both serrated and smooth, used many ornaments of shell and animal teeth, and made extensive use of bone. They also used peculiar arrow points of deer horn, made awls from the ulna of deer, and tarsometatarsus of wild turkey. Their celts were often made of horn, and two-handed scrapers from metapodal bone of deer and elk. They used small cylindrical and elbow pipes of sandstone, and a great variety of sandstone discoidals. They did not use copper to any considerable extent, and except for occasional marine shells showed very little evidence of having obtained materials foreign to their area. They lived in villages, burying their dead

sometimes in mounds, more often adjacent to their dwelling, sometimes actually within it. Their graves were usually simple holes in the earth. Often the skeleton was completely flexed, and often with but few artifacts.

This dominant culture, which probably had its center in the Scioto River Valley, extended into Kentucky, and has certainly been located at Fox Field, Mason County, and Fullerton, Greenup County. The full extent of its southern boundary in Kentucky is yet to be determined.

Chronologically it has no connection with historic times; its origin uncertain, it has left no descendants, but has left a vast number of mounds and village sites, some quite large, to testify to its primitive culture, but dominant occupation of much of the Ohio River Valley at a period estimated to be from four hundred to six hundred years prior to the coming of white men into this area.

THE HOPEWELL CULTURE

On the north fork of Point Creek, flowing into the Scioto River, Ross County, Ohio, is located a group of prehistoric earthworks, known as the Hopewell Group. Because of the distinct characteristics of the builders of these mounds, the name of Hopewell has been applied to the great culture group of which these mounds are a part. This culture is responsible also for the Harness Mound, Seip Mound, Tremper Mound and the Mound City Group in Ohio. It would seem that in this culture primitive man rose to his highest cultural development ever attained in prehistoric times on this continent.

This culture is notable for its use of native copper, probably obtained from Lake Superior region, for its use of obsidian probably obtained from the far west, for its use of mica, quartz and galena. The general use of such materials shows an extent of trade and travel probably never attained to by other primitive peoples.

This culture appears to have developed the arts of carving stone, and weaving, to a very high degree. Their characteristic zoomorphic platform pipes, and plain platform pipes of red pipestone, show a beauty of form and workmanship far in advance of any other ancient culture group of the Ohio River Valley. While they used mounds for burials, and often

placed the greatest variety of artifacts with the dead yet they also built mounds, which show that in the interior they were charnel houses for cremating the dead.

Cremation was commonly used by the Hopewell Culture, both for individual burials and for community depositories. When the charnel house served a community, as in the Tremper Mound, great basins, ten by twelve feet square, of puddled clay, served as final repositories of the ashes of the dead, to the number of several hundred in such a basin.

So far no absolute proof of occupancy of any site in Kentucky by the Hopewell Culture has been obtained. Yet artifacts of copper and the characteristic platform pipes testify to either their transient occupation of Kentucky, or to their influence upon those living in the area. In a small mound, now long since destroyed by cultivation, on the Peter farm, on the Newtown Pike, some five miles north of Lexington, in Fayette County, were found copper artifacts, believed to have been of Hopewell Culture. On this same site was found a large bird pipe, now in the Smithsonian Institute, at Washington, which would seem to strengthen the theory that here was a lone outpost of this highly developed culture, far removed from its supposed normal area.

More than once the South has been suggested as the place of origin of the Hopewell Culture. This has perhaps been in part due to the artifacts of copper found by Moore in Moundville, Alabama, along the Black Warrior River. However, there is no definite proof of their origin as yet available. It appears that there is evidence to support the idea that they were perhaps contemporary with the Ft. Ancient Culture and may even owe their extinction to this more numerous, and dominant, though much less highly developed, people.

THE STONE GRAVE CULTURE

On both sides of the Ohio River and its tributaries, in Ohio, Indiana and Kentucky, extending back from the actual river on either side, in a strip of varying width, sometimes as much as twenty miles wide, is to be found a peculiar prehistoric type of stone grave. These graves are found usually on high points or bluffs overlooking a stream or larger area of lower

land. The graves themselves are stone "cairns" are made by placing the body to be interred practically on top of the ground and covering it with large stone slabs to form a top in the form of an "A." Then other stones were placed against the first series and this process continued until a considerable area was covered.

In time surface accumulation and the action of frost caused the stones to be partially buried. Such poor protection to the skeletal remains has resulted in most cases in the entire disappearance of the bones although in a few instances enough of the skeletons have been located by the authors to show that these structures were in fact burial mounds. These stone cairns on the high ridges of the Ohio River Valley have been investigated by many and all agree that they are absolutely destitute of artifacts of any kind, a fact which has made these graves somewhat of a mystery. Most authorities agree that they represent a distinct culture. Dr. Cyrus Townsend attributed these stone graves to Shawnee or pre-Shawnee occupation but Dr. Fowke has pointed out that they differ in many important respects from the known Shawnee graves in Kentucky and Tennessee. The fact that in most cases there is no evidence of a village or dwelling site at or adjacent to these stone cairns may mean that the record of this culture is already largely lost to history.

THE IROQUOIS

It is known that in comparatively recent historical times, probably during the seventeenth century, the powerful tribes of the Iroquois Confederacy invaded the Ohio River Valley, coming from the east where in the State of New York they have left a predominant impression upon the archaeology of a vast area. They were very fierce, were efficient as conquerors, and it is a matter of recorded history that all other tribes living in Ohio, Indiana and Kentucky either fled before the invasion or were destroyed. It might at first be thought that they would have left a marked impression on Kentucky's early history but today, although it is well known that the Iroquois met and drove out of Kentucky the tribes of the Algonquin which are known to have been numerous, yet the Iroquois left practically no trace of his occupancy. Only an occasional arrow or spear-head in the

fields, or a stone axe, reveals the fact that the Iroquois ever trod Kentucky soil. This only emphasizes the fact that a hundred years of occupation of a region by a scattered, warlike, and transient people is not long enough to have any considerable effect on the archaeological features of the area.

THE ALGONQUIN

The central portion of Kentucky along the Green River and westward was, before the Iroquois invasion, rather thickly populated by the Algonquin tribes, perhaps their chief monuments today are the great shell mounds on Green River described elsewhere in this report, where we have referred to them as the "River People." These people were largely fishermen, always living on the river. They made a fair grade of pottery, used grooved axes, very large and crude arrows, and buried in, under and about the shell mounds. They worked many different stones, making banner stones and net-spacers, and used in connection with them a characteristic hook made of deer antler. Their origin is generally thought to have been in the south and their disappearance in the same direction, if indeed they were not destroyed in Kentucky without migrating, but we are calling attention in a later chapter to the fact that there are some features of their culture which suggest relationship with northern rather than with southern tribes.

THE PRE-CHEROKEE

The explorations of Harrington for the Haye Foundation, which were conducted chiefly on the Tennessee River between Nashville and Chattanooga in territory known to have been inhabited up to historic times by the Cherokee, has made available very accurate information as to the Cherokee culture. But it is interesting to note that the known Cherokee culture as investigated in many places by Harrington is laid down on top of a more ancient culture, denominated by him as the "Round Grave People." In this connection he says:

"It was evident that all the burials found on this site, except the old round graves, and most of the specimens unearthed should be attributed to one people whom we finally identified as the Cherokee found in possession of this district by the whites; while from the circular graves we inferred that before the founding of the Cherokee village another people had used this point of land for burial, a people

who occasionally at least used stemmed arrowpoints. Later work, especially that on the nearby Lenoir or Bussell's island, shed further light on the culture of the 'Round Grave People' and furnished clues which point toward Algonquin influence, if not relationship."

In southern Kentucky such round graves have been found along the Cumberland River and probably represent this pre-Cherokee culture. Similar graves were found by the authors in Hines Cave in Wayne County.

A characteristic of the culture is the use of limestone hoes, the olivella shell bead and the decorated shell gorget. The culture is also characterized by a variety of stone celts and stone axes, all ungrooved. Large discoidals were used in some kind of game and occur frequently along the Cumberland River. That the culture extended as far north as Scott County seems to be proven by excavations of mounds near Stamping Ground and by the finding of a typical Cherokee decorated gorget by Mr. T. W. Singer in a small mound on his father's farm in that county.

THE WESTERN RIVER CULTURE

In addition to the people responsible in central and southern Kentucky for the stone box graves which were previously mentioned, there remains yet another culture which seems to be distinct from the others which have been noted.

In the extreme western portion of the state, on the Cumberland and Tennessee Rivers, are to be found many prehistoric remains of a people who buried sometimes in stone graves but often without stone, since in that region limestone was difficult to secure. This people used a very much serrated and sharp-pointed arrow with a characteristically long stem. They made and used flint hoes in large numbers some of which were beautifully notched. Their ability to work flint reached a very high state and many of the most unusual forms of arrow-points, harpoons and knives are attributed to this people. Their pottery was of high order and beautifully decorated. The long-necked water bottle was much used by them and to this utensil they added a pottery stopper to close the small mouth of the bottle; such stoppers having been found in position in the bottles.

Since this culture has been but little studied, it has, so far as is known, received no special name. For lack of a better term

this culture might be designated as that of the "River People of Western Kentucky."

SIGNIFICANCE OF TERMS

After all, therefore, we can speak of neolithic man in Kentucky only in very general terms. We know that he was here; we believe that he was represented by various groups, not all of which were related, and we choose to speak of these groups as "mound-builders" or "cave-dwellers" or "cliff-dwellers" not because these names have any ethnological significance, but because they are convenient terms by which to designate the habitats of the group; we feel sure that prehistoric man occupied this region for a long period of time and that perhaps successive and overlapping cultures are represented in this ancient history; we are convinced, moreover, that there are represented in Kentucky more of these cultures than have been previously supposed. The following chapters, therefore, are devoted to a brief discussion of some of the evidence which has led us to form such conclusions.

