



FIG. 73. THE HOME OF THE CLIFF-DWELLER.
Characteristic cliff formation with overhanging ledges which form the so-called "rock-houses."

CHAPTER VII

THE CLIFF DWELLERS

The Kentucky cliffs abound in overhanging walls of rock beneath which shelter is easily obtainable. These shelters are commonly called "rockhouses" and were used as habitations in prehistoric times. They are generally found in rough country where the sides of the mountains are precipitous but where often the scenery is very beautiful and the outlook most attractive.

These cliffs and overhanging ledges occur along the canyon walls of streams, as for instance where the middle Kentucky River has cut its gorge through the hard Highbridge limestone, and are particularly abundant at the head of coves trenched in the Coal Measure conglomerate along the western border of the Eastern Coal Field. Here they often take the form of the structures properly known as "amphitheatres" or "cirques."

Just as some of the ancient inhabitants of Kentucky were distinguished for the building of mounds and others were partial to caves, still others seemed to prefer to live in these high and sometimes almost inaccessible crevices in the rocks, and these people we are calling the "cliff-dwellers." There are many parts of Kentucky in which such cliffs with their characteristic rockhouses are abundant and in most of these places the homes of the cliff-dwellers may be found.

There seem to be very few reports on these rock shelters in Kentucky, although they are very well known and have been extensively studied in other parts of the United States, and consequently the ones which we have to describe are entirely those which we have ourselves examined.

While the cliff-dwellers probably do not at all represent a distinct race or a peculiar culture, still there are certain peculiarities in their artifacts, certain differences in their skeletons, and without question indications of certain unusual customs and practices which set them off from the other groups.

Among these distinguishing characteristics, one of the most striking is the practice of excavating in the rock floor of the shelter the so-called "hominny-hole" which seems to have

been used for the grinding of corn. Near these holes may usually be found the stone pestle which we assume was the implement used in crushing or grinding the grain in these holes. The hominy-holes are often three or four feet deep, generally four or five inches in diameter at the top and gradually becoming narrower towards the bottom.

They are usually bored straight downward in the face of the cliff but occasionally are found in the top of a large boulder. That they were an absolute necessity to the cliff-dweller and were constantly used is proven by the fact that it is very unusual to find a true rock shelter without one, and the additional fact that where a long series of shelters are found on the face of a single cliff, there are generally one or two and sometimes several holes in front of each shelter. The pestles are usually of limestone, from six inches to a foot or more in length, two or three inches in diameter, roughly cone-shaped, broad, flat and flanged at one end and rounded at the other, and sometimes marked with ridges or grooves.

Various types of pestles are described and figured in a later chapter on stone implements and their probable method of use discussed. It has been commonly supposed that the broad flat end represented the grinding surface and the rounded end the handle, but there seems to be some evidence to show that the opposite was the case and in fact that the pestles may not always have been used by hand at all, but may have been moved up and down in the hole by means of a thong or cord. However this may have been, the hominy holes and the pestles were in some way associated, and are very characteristic of the cliff-dweller.

An interesting artifact found commonly around the hominy-hole was a small cone-shaped rock, the use for which could not be imagined until we found one in the bottom of a hole in a position which indicated that when the holes became worn too deep, these stones were used as plugs to artificially raise the bottom. These plugs are likewise described and figured in a later chapter.

Since these hominy-holes are usually bored into the natural rock of the cliff, it is of course impracticable to secure a satisfactory museum specimen, and to be appreciated they must be seen in their original position. To saw out a section of the rock

containing the hole would give it a most artificial appearance, and consequently this particular type of the cliff-dweller's handiwork is seldom seen in museums. We were very fortunate, however, in finding on the farm of Mr. Wesley A. Bratcher, about two miles south of Cove Hollow in Hart County, a very fine specimen of a hominy-hole in a single large sandstone boulder which had by the process of weathering become detached from the face of the cliff.

Through the ingenuity and skill of Mr. P. F. Childress of Cub Run, this immense rock was successfully brought down the mountain side, dragged for a mile or more up a creek bed, carried on a wagon for twenty miles over extremely bad roads to the railroad at Munfordville, and there placed on a flat-car and shipped to the University of Kentucky where it is now on exhibition. It is believed that this is one of the few successful attempts to remove such a specimen without accident from its ancient bed and make it available for display as a unique and characteristic monument to the memory of the cliff-dweller. Incidentally, in this part of Hart County and particularly in a line of cliffs about four miles south-west of Cub Run, are to be found the finest series of hominy-holes which we have seen in the state.

Another characteristic of the home of the cliff-dweller is the peculiar type of kitchen-midden. Apparently the easiest way in which to dispose of refuse in a rock shelter was to sweep it over the side of the cliff and as a result the accumulation of debris is found at the base of the cliff directly beneath the shelter. Here it is to be found piled up in a talus. These trash-piles are often very rich in artifacts, probably because it often happened that objects fell over the side of the cliff which were not intended to be thrown away. We have found some of these heaps of refuse so large and so full of bones and other animal matter that the farmers in the neighborhood were hauling it away and spreading it over the fields to enrich the land, a purpose to which it was well adapted.

The largest and most extensive of these kitchen-middens which we have seen in Kentucky were found at the bases of "Cow Cliff," "Buzzards Cliff" and neighboring cliffs four or five miles west of Howe's Valley in Hardin County. Here also

are to be seen some excellent hominy-holes and some extremely fine shelters. During the summer of 1923 a party consisting of Professor A. M. Miller, Professor G. B. Roberts, Mr. George Roberts, Mr. Victor Dodge and the authors made quite an extensive survey of this region and through the kindness of Mr. H. P. Miller and Mr. George Pirtle of Howe's Valley were enabled to locate and examine a large number of the rockhouses of the neighborhood.

Graves are usually to be found against the back wall of the shelter but may be located at any spot where the accumulation of earth is deep enough to cover the body. Usually the dirt



PHOTO BY A. M. MILLER

FIG. 74. THE PAST AND THE PRESENT.

Miss Frances Johnson in a rock-shelter with the skulls of two cliff-dwellers.

floor of a rock shelter is shallow and therefore most of these graves are quite superficial. In such a rockhouse in Harlan County were found nine skeletons, all buried only a few inches below the surface. These skeletons were discovered in 1923 by Miss Frances Johnson, a fourteen year old girl at the Pine Mountain Settlement School who had heard stories of the "Indian Graves" under the cliffs and decided to investigate for herself. The result was the finding of skeletons and artifacts of great age and of considerable archaeological interest.

Dr. W. C. Connelly in 1927 reported the finding by Mr. Boyd Howard of two ancient skeletons in a rockhouse on his farm near the mouth of Coon Creek in Magoffin County. This

rock shelter, because of its suitability for the purpose, had been fenced in to form a hog-pen and the rooting of the animals confined in this pen uncovered the skeletons which proved to be those of an adult and a child, lying in ash-beds and covered by a large rock which had fallen from the roof of the shelter probably not later than a century ago. Old inhabitants of the neighborhood testified that certainly seventy years ago the rock had been in the same position and that two neighboring residents had secured enough stone from this rock in early days to build two large stone chimneys. The supposition in this case may be that this does not represent true graves, but might indicate the accidental crushing of the cliff-dwellers by the falling of the rock upon them.

The examination of the skeletons found in the rock shelters shows a peculiarity which, while not at all limited to the cliff-dwellers, seems to be more pronounced in this group than in any of the others. This is the condition of the teeth which in many instances are worn down until they are entirely smooth and flat. The cusps have been entirely worn off and the wearing process has continued through all of the enamel and deep into the dentine. Such a condition is not uncommon in many of these ancient skulls, wherever found, and has usually been explained by the supposition that certain foods which they consumed or certain materials which they regularly chewed were of such a nature as to thus wear away the teeth.

It has been suggested that parched corn might have been such a substance. We know that the Indians raised corn and that this food was well adapted when parched to being stored or to being carried on long journeys. Furthermore it was nourishing, would not quickly spoil, was light in weight and not particularly bulky. A constant diet of this hard corn might, however, injure the teeth in the fashion shown by the skulls. When we remember, however, the hominy-holes which are so characteristic of the rock shelters and when we note that the teeth of the cliff-dweller shows the worn condition so markedly, another explanation presents itself. It is conceivable that corn ground in these soft sandstone rocks would contain a large amount of sand and would give a mixture (the original "hominy grits?") which would certainly be hard on the teeth.

Whatever the cause, the condition undoubtedly exists. At first thought it would seem that such a wearing away of the tooth would result in considerable pain and discomfort. A longitudinal section of such a tooth shows, however, that as the enamel has been worn off, the dentine has been built up from below to compensate, and the pulp cavity is never exposed. Dentists assure us that this is not uncommon in modern man and that there are today many individuals, particularly those who have for years chewed tobacco, whose teeth are very similar to the kind we have described. In investigating this matter we find that this is indeed the case and that many old men who have chewed tobacco for years exemplify the fact. In following up this subject, it appears that some individuals, at least, are "right mouthed" or "left mouthed" just as they may be right or left handed—that is, they chew almost entirely with the teeth on one side of the jaw. In questioning an old tobacco user whose teeth on one side were badly worn while those on the other were not, we asked him why he did not chew his tobacco on the other side and his reply was that he could not—that he had tried it and "it made him sick."

While on the subject of teeth we may note, also that the teeth of many of the ancient skulls, not at all confined to the cliff-dwellers, show undoubted evidence of pyorrhea—verily, there is nothing new under the sun! Also we find many compacted molars, especially the wisdom teeth.

Many rock shelters may be found along the old "Indian Trails" across the mountains. Since these trails are often winding and do not always follow the shortest or even the easiest routes, we conclude that they were purposely made to pass close to these shelters for the very evident advantage which they would offer for camping-places and protection. The overhanging rocks in these places are often deeply stained by the smoke from many fires and show plainly that they have been often used, and in fact even today they not uncommonly serve the same purpose for modern hunters and trappers as they did in olden times.

Often, too, these "rock houses" are used by the present owners of the land as shelters for stock, for pens, for stables, for out-buildings and for storehouses, since they are high, dry and permanent. It is even rumored that they are not ill-suited

for the location of moon-shine stills. When not used by man, they are now regularly occupied by other animals, particularly by rats and buzzards, which seem to find them ideally suited to their needs.

A few of the best rock shelters which we have examined may be briefly noted. One of these is near the top of a mountain just outside of Pineville. This is an enormous shelter, almost worthy to be called a cave, and is traditionally an ancient habitation. Near it is an excellent spring and the locality is now a favorite spot for picnics. It is unquestionably an ideal situation for a home for early man. Incidentally, on the roof of this shelter were taken a number of rare spiders of a species seldom found in the United States.

In the stream valleys on the east side of the Pine Mountain range in Bell and Harlan counties there are many excellent shelters most of which show indications of habitation in prehistoric times. The west side of this range is precipitous and is little eroded but the east side is sloping and gives rise to numerous streams which in cutting their beds have left the typical overhanging ledges. This region illustrates also the association of shelters and old trails. There are few natural gaps in these mountains and where they exist they were doubtless taken advantage of by early man as they are today by modern man in seeking a route from one side to the other. These trails therefore usually zig-zag up the steep cliffs on the west side to such a natural gap at the crest and then follow a stream-bed down the east side and thus pass the rockhouses on the sides of these beds.

The entrance to the ill-fated "Sand Cave" (which is not a cave at all) in Edmonson County is a rock shelter which was at one time much larger than it is now. In the attempted rescue of Floyd Collins who lost his life while attempting to explore the cliffs at this spot, a number of Indian artifacts were found which indicated that the place had at one time been occupied by the cliff-dwellers.

An especially fine example of the "amphitheater" type of rockhouse is located at Torrent in Wolfe County. Here there is an immense chamber at the head of a deep hollow opening out of Graining Fork of Middle Fork of Red River. The roof,

formed by an overhanging cliff of conglomerate sandstone, is 160 feet above the floor at its outer edge and over this edge flows a stream which falls into a pool below and during wet seasons produces a curtain of spray. This stream originates a mile or two back on the ridge above the cliff and shows that the hollow is not the real source of the stream which excavated it.

The space under the cliff, eroded out by weathering and by the recoil of the water in the waterfall, has been fitted with seats so that it may be used as a place for public meetings. It is one of the largest and finest rock shelters which we have seen in the state and may have been used for the gathering of many an ancient clan before the white man discovered it.

On the farm of Mr. H. B. Woodring near Cub Run in Hart County, is a curious formation locally known as "The Castle." This is a typical rock shelter with a hominy-hole and an adjacent spring, and on the floor of the shelter and in the nearby fields the authors found an abundance of artifacts, particularly flint.

In this same region, in a line of cliffs about 4½ miles southwest of Cub Run are perhaps the finest series of rockhouses which we have ever examined. Fifteen of these shelters were found in a row along the cliff and high above the valley. The dirt floors contained graves and were rich in artifacts while the kitchen-middens at the foot of the cliff were also the source of interesting finds. Through the courtesy of Mr. J. F. Gerald, Mr. J. N. Mansfield, Mr. P. F. Childress and Mr. R. E. Jagers, we were allowed to excavate a number of these shelters and secured in addition to arrowheads, scrapers, knives, stone hoes, bone needles, sandstone gorgets and fragments of pottery, the best series of worked shell artifacts which we have found in the state.

Some of these, especially the shell scrapers and the shell spoons which are described in a later chapter, were quite unique. It may be noted, in this connection, that shell objects are very hard to find in good condition since they are so fragile, so easily broken and become disintegrated so quickly, but cliff conditions seem to be conducive to their preservation and therefore the rockhouses are likely to furnish a good collecting ground for this type of artifact.

In a neighboring line of cliffs on the farm of Mr. W. A. Bratcher, where the hominy-hole previously described was secured, is a similar series of shelters which while not so extensive yielded a considerable number of skeletons, pottery pieces and animal bones and a curious type of arrowhead of blue flint with expanded shoulders and serrate edges.

Investigations in this same part of Hart County on the farms of Mr. George Waddle and Mr. Robert Childress showed that this region was without doubt thickly inhabited at one time by the cliff-dwellers, for everywhere we found the typical rockhouses, the hominy-holes and the graves.



FIG. 75. CLIFF-DWELLER COUNTRY.
Showing the physiography of the knob region.

Another excellent type of cliff-dweller shelter was investigated on the farm of Mr. Hugh Yates at Vine Grove, Kentucky. Here the characteristic conditions obtained and a large amount of material was discovered at the foot of the cliffs.

A region which is even richer in rock shelters exists in those counties which border the Coal Field in the eastern part of the state but the authors have had little opportunity to examine these localities and they must await future investigation. A fine large "rock house" is located on Mill Creek in northeastern McCreary County near the Cumberland River and would be well worth a detailed examination.

Enough work has been done, however, to convince us that the homes of the cliff-dwellers are well worthy of continued and extensive study. Like the caves, they represent ancient habitations of man which are fitted for preserving the evidences of his existence through long periods of time and being usually located in more or less inaccessible parts of the country and in thinly settled communities they have not been greatly disturbed by the vandalism of modern civilization.

