

# Ashes and Relics: The Hidden Pocket



Neither of these contained anything but natural earth. In the one to the right, from the entrance, was a pocket on the south side, wide, high, and deep; it was filled with ashes containing bone and shell, but no worked object except a flake scraper. At intervals, within the next few feet, were two mortars, a much used pestle, some bone awls, and flints, all of them in places where it was scarcely possible for a man to sit erect, as the tunnel-like cavity, circumscribed by solid rock, was nowhere as much as in diameter. At its narrowest part it measured only high and wide. At the cave opens into a well-like enlargement, and high. Bone and shell in small amounts were found here, and among them the skiver shown at d in. From this well-like cavity three branches start; one continuing in a direct line east, one to the north, and one to the south. The east (middle) branch is only high and inches wide, with solid rock all around. It contained ashes, with a little refuse, as far as a man could reach. The branch to the north is entered through an opening high and wide in a thin wall of the original rock, just within which it widens to nearly, holding the same height of. Within this doorway, on the red earth bottom, were a small mortar and a grinding stone worn by much use; both were stained with red paint. A foot farther in was part of a skiver; and beyond this was a large knife of white chert almost as clear and compact as chalcedony, shown at a in. Ashes continued in the north tunnel for from the entrance, beyond which no further progress was possible. Before this point was reached, the refuse which had been continually decreasing in amount no longer appeared. The tunnel leading from the well toward the south is high, wide. At it branches; one fork, wide, turns eastward and curves to join the east branch from the well. The other branch continues south, but soon closes; in it were found a small piece of an adult's skull and the hip bone of a young child. The floors in all the branches of the small cave were covered from deep with a reddish mixture of sand and clay, on which were ashes filling the space above almost to the roof. In a few places refuse was found in this silt, of the same general character as that in the ashes, but in very small amount. This is not significant; such remains were dragged down by animals, which range everywhere. The two deposits are quite separated and distinct. The clay and sand on the rock bottom came from disintegrated rock on top of the ground outside, or at any rate from some level higher than that where they are found now; but how ashes, shells, broken bone, and especially how worked objects came to be in places too contracted for a man to creep, and where they could be neither carried nor pushed, is not to be explained except on the hypothesis of a chamber above, whence they may have worked or may have been thrown down; but at no place, either in the cave or in the outside surface, could there be found any evidence of such communication. Fifty-five feet from the mouth of the cave, in the east wall, is a crevice into whose lower portion extended the red clay of the cavern floor. It branched into various tortuous divisions, all of which were filled with ashes containing a large proportion of refuse. It appeared at first that all this had settled in, or been thrown in, from the main cavern; but one branch, having a very irregular outline, was in such situation and trended upward at such an angle that it could not have been filled from below. As in similar cases previously noted, however, no other opening to it was to be found. The smallest workman cleared it out to as great a distance as he could crawl and use a trowel, but did not succeed in reaching the end of the deposits. At the bottom of the crevice were ground-hog burrows extending between loose rocks, under ledges, and into the red clay. All these were followed as far as they could be, and found to contain quantities of refuse. There was also a considerable amount of fine dark earth in the burrows, showing they have another outlet somewhere. Occasionally a mass thrown out by a shovel or a trowel contained more refuse than ashes. There was nearly everything which was found elsewhere in the cave, and almost every shovelful contained something worth preserving. Near the rear of the cave erosion of the lower part of the eastern wall formed a rudely triangular recess or cavity long by deep at the widest part. The upper margin of this was below the surface of the ashes, so that its existence was not suspected until these had been removed from in front of it. The roof was above the rock bottom, the entire space being filled with loose material. The upper of this was clean ashes in which were great quantities of refuse, so much that it had all the appearance of a general dumping ground. Below this depth, patches of fine dark earth were mingled with the ashes and refuse.

The latter continually decreased in quantity, until at a foot above the bottom they ceased altogether, the lower portion of the deposit consisting of nothing but earth. The pure ashes were slightly damp; and the moisture increased with the depth until at a foot above the bottom the earth was saturated and could no longer be removed with tools. The refuse in the ashes consisted of animal bones, entire or in fragments; broken flints and pottery; mussel and snail shells; and numerous wrought objects. These continued, though in smaller amount, where the ashes were mingled with earth, though bones and shells were soft owing to the moisture, and could be removed only in fragments. Among them were the flint shown at a in, and the hematite ax, at a,. The latter was at the lowest level to which the ashes extended; perhaps its weight caused it to settle below the place at which it originally lay. Near the middle of this chamber, from the rear wall, lying at the bottom of the mixed ashes and earth, were entire and broken leaf-shaped blades; they were not closely piled, or arranged in any order, but seem to have been hastily or carelessly laid or thrown on a small space. Another was found a foot away. They are shown in. FLINTS FROM MILLER'S CAVETOList FLINTS FROM MILLER'S CAVETOList FLINTS FROM MILLER'S CAVETOList AXES AND PESTLES FROM MILLER'S CAVETOList Here and there among the refuse were found the upper jaw, with left orbit, of a young person; a fragment of an occiput, perhaps belonging with the above though not lying near it; fragments of the skull of a young child; half of an ulna of a child probably years old; a small fragment of the lower jaw of an adult with one molar remaining in it, which has been burned until black. These fragments were all in such position and condition as to show they were not carried in by animals; were not disinterred from graves and placed here; were not in any way accidentally present; but had been gathered up with the refuse and thrown in as a part of it. The broken or burned condition of these, as well as of other human bones found at random among the ashes of the main cave, are presumptive evidence that dwellers here sometimes devoured the flesh of human beings; and the fact that a majority of such bones are those of children indicates that it was not eaten through a belief that the valor and skill of an enemy could be thus absorbed by the victor, but that it was used as food, like the flesh of any other animal. Such conclusion may not be justified; but the facts are not readily accounted for otherwise, except on the equally repulsive hypothesis that the inmates of the cave were brutally indifferent to the bodies or skeletal remains of their fellows. Omitting this question from consideration, however, there is still ample evidence that the inhabitants of Miller's Cave were in a low state of savagery, or, if the phrase be preferred, in a very primitive stage of culture. There was a remarkable paucity of articles used as ornaments or for personal decoration, and the few that were found were simple and crude, being only rubbed stones or rough pieces of bones which were possibly intended for beads or pendants. The pottery, while strong and serviceable, was plain in form and devoid of any ornamentation or design except that a few pieces showed impressions such as would be made by scratching or pressing with the end of a small stick or bone. Nearly all of it was cord-marked, though some was smooth, one red piece appearing almost glazed. It varied much in thickness, hardness, and color. Most of it was dark gray, some red, occasionally a piece yellowish or nearly white; due to the different clays of which it was made. So far as observed it was tempered with shell. The shards were small, as if when a pot was broken the fragments were still further demolished. The curvature showed there was a wide range in size, from about a pint to or more. Their mortars were natural blocks or slabs of sandstone, such as may be picked up by thousands in the immediate neighborhood, and showed no alteration of form beyond ordinary wear except that the rough faces of a few were pecked, apparently with a pointed flint tool, to make them less irregular. Some were flat and smooth from use with a muller or grinding stone; most of them were worked or hollowed on only one face; a few showed depressions on both sides; one had a few hemispherical indentations near the margin, like those observed in cup-stones. Only one pestle was dressed into any of the forms which we are accustomed to associate with the name, and this was a truncated cone with rounded top, shown at b in. All the others were cobblestones from ravines or the river shore. A few had undergone no change in form; most of them were battered on the perimeter; a few had pitted sides; some had been used as pestles, mullers, or grinding stones until the surface was more or less smooth. All such stones are classed as "pestles," for convenience; they could have also been used as hammers, bone crushers, and in various other ways.

In all, were found; counting only those stones which bore marks of use as such. The largest one was at the bottom of the ashes, near the doorway. There were more than which bore evidence of much use; and probably as many more on which there was little or no sign of wear. As the cavern was not of sufficient size to provide living quarters for many families at any one time—at the most—the large number of these utensils may imply that the inmates would not use an object which had previously belonged to some one else. Among the flint implements there was a wide range in the character of stone, the shape, and the degree of finish, although the variation in size was quite limited. Very few of them may be classed as either large or small. The longest, shown at a in, measured; few were more than. Tapering stems predominated. The principal forms are shown in. Only three arrowheads were found; but this was to be expected, as arrows would be used only out of doors. One of these of clear, fine-grained pink and white chert, shown at b in, so far surpasses in delicate finish any other specimen secured that it is probably exotic. The large number of cores, blocks, spalls, and flakes shows that many implements were made and repaired here. But, while a few specimens showed that their fabricators were masters of the chipping art, most of them were roughly finished. Some which are so little altered from the original form of the rough flake or spall that they would be classed as "rejects" if found about a flint workshop have a smoothness or "hand polish" which denotes much service. There is the possibility, of course, that hunting or traveling parties from some other part of the country may have availed themselves of the shelter, either when it was temporarily unoccupied, or as guests of those living in it; and that these, also, may have left some small articles when they departed. However this may have been, all the objects from the top to the bottom of the deposits, in dry ashes or in sticky mud, in crevices or branch caverns, on the red clay, the barren muck, or the bedrock—all, if we may except the few flints of superior workmanship—are identical in general character: That is to say, any object from any part of the deposited material had its practical duplicate at various other points on different levels. Only three grooved axes and three pestles were found. They are shown in, along with a cobblestone used as a pestle. BONE IMPLEMENTS FROM MILLER'S CAVE To List BONE IMPLEMENTS FROM MILLER'S CAVE To List BONE IMPLEMENTS FROM MILLER'S CAVE To List BONE IMPLEMENTS FROM MILLER'S CAVE To List BONE AND ANTLER IMPLEMENTS FROM MILLER'S CAVE To List ANTLER IMPLEMENTS FROM MILLER'S CAVE To List SKIVERS, SHOWING STAGES OF MANUFACTURE, FROM MILLER'S CAVE To List SHELL SPOONS, POTTERY DISKS, AND BROKEN SPOON MADE OF A DEER'S SKULL, FROM MILLER'S CAVE To List The cave was especially rich in objects wrought from bone and antler. A few of these are shown in and figure. Perforated bone object from Miller's Cave. To List Plate 36 illustrates four stages in the manufacture of skivers. It shows that instead of being always rubbed down from its natural form the bone was sometimes split by blows of a stone hammer until complete, subsequent smoothing probably resulting from use, as shown by the implement at c. When skivers were broken, the ends were dressed down for other uses; as observed in the upper row of. Shell spoons, knives, and scrapers were abundant. Some are shown in, along with perforated pottery disks and the bowl of a spoon made from the frontal bone of a deer. represents the only adz or gouge form implement found. It is made of gray chert, the edge highly polished. In is shown a broken clay pipe, identical in form and material with that in figure. Adz or gouge of chert from Miller's Cave. To List The red clay which had formed the floor of the excavated area from the mouth of the cavern to well past the central portion suddenly dipped to the north and to the east shortly before reaching the corner of the west wall. Attempts to follow it downward were frustrated by black earth, which when dug with pick or shovel assumed the consistency of "hog-wallow mud." For a space of inside the doorway, whose floor was about higher than the average surface level in the cave, the ashes were not more than a foot thick, the clay rising to this extent. It spread out fan shape, with a continuous slope for several yards in every direction, thus making an easy grade for entrance and exit. There are three ways in which this condition could have been brought about. First, the aborigines may have constructed a graded way; though it is not at all likely they would have piled the clay so far to each side. Secondly, it may have washed through the doorway from the outer cave when the main outlet of the latter in the face of the bluff toward D (was obstructed in some way. This is improbable. Thirdly, it may be due to material deposited in the eddy or swirl created by the corner of the west wall whenever a large volume of drainage water flowed from the westward in the main cave and was sharply deflected toward the south when it struck the east wall.

This is no doubt the correct explanation.—Clay pipe from Cave. To list whether or not these floods had any part in piling up the clay at the doorway, beyond doubt it was to them that the clay, gravel, and sand resting upon the floor of the main cave owe their origin. To them is likewise due the dark earth overlying the clay at the rear and covering the floor of the recess in the east wall. Clearly, there was at one time in the cave's history a current at intervals, which carried mud and small rocks from the interior of the cave, or from the outside surface through sink holes, and left at least a part of it where the velocity of the stream was checked. Later, much of this water found other drainage channels, and the coarser matter could no longer be carried into the cave; but at times of unusually heavy precipitation enough of the torrent followed the old course to bring in the dark earth. The last is due to top soil containing a large amount of humus from decaying vegetation. Finally, no more water came this way except as seepage, which is the condition at present. The pool at the rear may be entirely empty in dry seasons; and after heavy rains may contain a depth of. This water now has a greasy looking scum and a sour, unpleasant odor. The cave was inhabited before the water had entirely ceased to flow through it; this is proven by the alternation of refuse and silt in the recess under the east wall. Kitchen waste would be thrown here, and when the water rose sediment would cover it. There was then dry ground near the doorway; and the water in the pool, having an outlet toward the east, through the crevice, was fit for use, except, perhaps, when turbid. On the rear slope, from the water, the excavation was carried to the level of the bottom of the pool. The lower was mud, and at the bottom water oozed in. Scattered through this muddy earth was much charcoal in small fragments; and for a short distance it also occurred for a few inches below the surface of the red clay. This charcoal was carried in by the water at the same time as the earth with which it was associated, and must be due to fires on the hill outside. At any rate, it did not come from any fires made within the cavern. No refuse or worked objects of any kind were found in this black earth, except in the recess in the east wall, as described, and in the upper portion immediately under the ashes. Such as existed outside the recess may have become mixed in the same way; that is, by being thrown on the top as it existed at the moment and being later covered by the water; or it may have worked in from the ashes above. Nor was there much refuse in the ashes on the rear slope, although these were quite regularly stratified. To entirely remove the rocks and clay and expose in a satisfactory manner the bedrock floor would require months of labor, the use of mechanical appliances, and complete drainage to the rear wall through the mouth of the cave. Without attempting to make a detailed list, there may be given a summary of the objects shipped to the National Museum; most of them more or less broken. skeletons, including those of children. fragments of skulls from different individuals not included in the above. of shell. flint objects; knives, scrapers, cores, etc. grooved axes, tomahawks, and flint hammers. stone hammers, rubbing stones, etc. objects of bone and stag horn. clay pipes. box of pottery fragments. A number of small objects, not classified. There were left in the cavern several hundred broken flints; more than mortars; probably used as pestles, hammers, etc., and several large wagonloads of shell, bone, and broken pottery. There is no way in which the age of the deposits in either the Miller or the Sells Cave can be determined. The accumulation of ashes in the one and of talus at the front of the other would certainly imply the lapse of several centuries, perhaps a thousand years of continuous occupation. Intermittent habitation would lengthen this period. RAMSEY'S CAVE Ramsey's Cave, better known as Freeman's Cave, is in a bluff on the right bank of Big Piney River, below Cave. It is about above the level of the stream and the same below the summit of the hill behind it. Within a hundred yards to east and west are shallow ravines by which access is fairly easy to a ledge nearly on the same level as the cave; this is wide enough for one person to traverse, but in most places too narrow for two abreast. The talus in front is rough and steep but a crooked path with no difficult grades can be made to the water. Chambers on each side near the entrance, which are accessible only by means of a ladder, provide excellent living quarters and command approach from any direction, even along the foot of the cliff on either side. The entrance, which faces southwest, is a symmetrical arch wide and high. Bedrock shows just in front, covered with loose material washed over the cliff.



The floor ascends and the roof descends toward the rear, until at they approach within 6 feet of each other; beyond this the cave is choked with fallen rocks and with earth and gravel probably from a sink hole some distance back on top of the hill. Refuse shows about the entrance and for toward the rear, where earth from the interior has worked down over it. The surface is strewn with rocks, large and small, so that excavations are possible only in small areas. Several holes were dug at intervals between the front and the rear; a considerable amount of ashes was found over the middle portion, thrown from still farther back. Very little was found in them. The rock bottom slopes upward slightly and was covered in some places with clay and gravel, on which lay the ashes and other refuse; these were nowhere more than deep, and usually much thinner. The place was so difficult to work in and the returns were so scanty that systematic investigation did not seem warranted, and the work was not extended. The only objects secured were a bone perforator, part of another one, a snail shell, apparently a bead, a very small piece of sandstone used as a grinder or polisher for bones, a fragment of worked mussel shell, and nine rough flints. There were also a few small fragments of pottery. A man living near the cave reported that a few years ago he was digging in a narrow space between the east wall and a large fallen rock. He came upon the feet of two skeletons and took out the lower leg bones. Being assured by a friend that these were not bones of Indians because they were not "red," and so must be remains of white people, he replaced them and threw the earth back on them. He was certain the spot had never since been disturbed; but in this he was mistaken, for investigation revealed a pile of human bones lying in confusion, in which the frames of two individuals, as he had said, were mingled; but no trace of the skull or jaw of either. Evidently some one had come afterwards in search of the skulls. The femur of the larger individual was just long; the other frame was much smaller; but all other bones were in such fragmentary condition they could not be measured. There is a rock shelter a short distance down the river from the Ramsey Cave and in the same ledge. It is long, deep, and high in front, the roof coming down to the floor at the rear. There is nothing to show that it was ever used, even as a camping place. A fourth of a mile above this cave is another from which flows a never-failing spring. There is a pile of ashes near the front, containing some refuse, but these mark only the site of an occasional camp, as the place could not be occupied in wet weather. GRAHAM CAVE On Graham's land, high up in a bluff facing Big Piney, opposite the mouth of Spring Creek, is a small cave difficult to reach and not suitable for occupancy. PILLMAN'S OR SPRING CREEK, CAVE At the mouth of Spring Creek, on land of John Pillman, near the top of the bluff, is a cave with an entrance wide and high. A steep rock ledge at the front offers an impassable obstacle to any stock except goats. The front chamber is well lighted for a distance of 80 feet, where it makes a turn. Bedrock is exposed near the entrance and rises toward the rear, showing here and there through the covering of earth, which is not more than deep anywhere. Water cracks appear even in the highest spots, proving the floor to be saturated at times. There is considerable refuse inside the cave, but none in front, and it is reported that human skeletons have been found in it. If so they must have been on a ledge or in a crevice. a, shows the hill, from the west; b, the entrance to the cave. Two large cairns stood on top of the bluff above the cave. So far as can be determined in their dilapidated condition, there seems to have been a row of stones inclosing a definite area, but it is impossible to ascertain with certainty whether this was the case. On a lower ridge, to the north, are three similar but smaller cairns. These are constructed entirely of sandstone slabs, and there was plainly some sort of system used in placing them; but, as in the case of the first, it can not now be determined whether there was a continuous wall, and, if so, whether it was more than one stone high. A village site is reported in the river bottom on David Thomas's farm on the Big Piney, near Moab. There were cairns, now totally destroyed, at two places on the ridge over which passes the road from Devil's Elbow to Spring Creek. WOODLAND HOLLOW CAVE A minor ravine, known as Woodland Hollow, opens into a small unnamed creek a mile above its junction with Big Piney River at the Devil's Elbow. In the west slope of this ravine is a large cave, named from its location. Through the middle part the floor is muddy; along the wall on the left, dry cave earth, with a width of, extends for from the entrance, its surface above the level of the wet floor.

A smaller amount of dry earth lies along the opposite wall. The sides of the cavern recede at the bottom, the dry earth passing under them. No estimate can be made as to the total depth of the deposits. At the mouth of a ground-hog burrow were two bone perforators, potsherds, fragments of bones, and pieces of worked flint, including two knives, which had been thrown out by the animal. Two mortar stones were found on the margin of the dry earth. The cave belongs to Philip Becker, of St. Louis, who peremptorily refused to allow any examination whatever to be made; the only case in the whole region where cheerful permission was not given for any amount of excavation desired. Three cairns, all demolished, stood on the Stuart property, half a mile from Woodland Cave. There is a cairn on top of Lost Hill, half a mile south of Blue, or Shanghai, Spring on Big Piney.

**WALLED GRAVES AT DEVIL'S ELBOW** Three miles above the point at which it passes out of the hills into the bottom lands on its way to the Gasconade, the Big Piney River doubles on itself with an abrupt curve, which raftsmen have named "The Devil's Elbow." For more than a mile above and below this bend the stream flows in opposite directions in nearly parallel east and west channels around the foot of a spur from the high land to the west. Into the Elbow, on its outer curve, three ravines from the east and southeast open within a fourth of a mile. They form the boundaries of two very narrow ridges or "hog-backs," which terminate in precipitous slopes near the river. For some distance back from the points the limestone bedrock crops out, a slight accumulation of earth in the crevices supporting a scanty covering of weeds but being insufficient to permit the growth of trees or bushes; hence the term "balds" by which they are locally known. The ridges have a gradual and nearly uniform slope toward the summit of the hill, which lies half a mile to the eastward. The sandstone capping the hill appears within a few hundred feet and is covered with an abundant growth. On the upland are many large trees. The ridge farthest south, on the farm of Joseph Ross, has five stone graves along the crest, numbered here in their order from the bluff. Number 1 is a few rods below the sandstone outcrop, and is constructed partly of weathered limestone blocks such as are now lying around it and partly of sandstone slabs carried from farther up the hill. All the other cairns, although stand on the limestone bedrock, are built entirely of sandstone fragments ranging from the size of a brick or smaller to pieces weighing over. At first sight the cairns appeared to be only piles of stones thrown together; but more careful inspection showed that each burial place was outlined by a wall, laid up with as much regularity as was practicable with the material at hand, and inclosing a space approximately square. Measuring from face to face of their walls, the spaces between these cairns were as follows: Not one of these walls was intact at the time of examination; hunters had torn away portions of all of them in pursuit of small animals which had sought refuge among the stones; and such parts as were not thus injured were more or less displaced by roots of trees penetrating in every direction the soil which had accumulated in the open spaces. So far as could be judged in their chaotic condition, the first step in their construction was to lay a row of slabs around the area required; then another row upon this; and the work was continued in this manner until the desired height was reached. As a rule, the stones were so laid as to break joints and to interlock at the corners, for greater stability; but in a few places this was not done. If a stone, once laid up, did not fit as it should, the builders apparently did not take the trouble to replace it with another better suited to the requirements. Seemingly, care was taken to build in such a manner that each outer face should be vertical, and in a straight line from corner to corner; but the inner side was left rough and irregular according to the shape and size of the blocks, no attempt being made to even it up. If timbers of any kind had been laid across the top, resting on the walls, there remained no indication of the fact. However, the bodies may have been protected at the time of interment by small vaults or pens constructed of poles, whose decay would allow the stones to settle, and of which no traces would now be left. The space inclosed by the walls was filled with loose stones lying in such disorder as to suggest that they had been carelessly or hastily thrown in to fill the interior and round up the top; but some of this confusion may have resulted from the same causes by which the walls were defaced. It does not appear that any stones had been piled against the outside of the walls to assist in retaining them in place; such as were found in this position were either thrown there by the present inhabitants or had fallen from the top.

Two of the cairns, the second and the third in order, were so torn up and overgrown that no investigation of them was attempted; the three others were fully examined. CAIRN In the first, that nearest the terminus of the ridge, all stones lying against the outside of the structure were thrown aside, bringing the outer face into plain view. The inclosure thus revealed resembled the rude foundation of a small building. Measuring from corner to corner the north wall was long, the south wall, the east wall, the west wall. The walls were as straight and the corners as square as they could well be made with surface rocks not trimmed or dressed from their natural rough condition. The space within was next freed of stones; the topmost were above the outside level, though no doubt higher when first piled. The inside measurements were: North wall, south wall, east wall, west wall; all measurements being approximate, as no definite boundaries could be determined. The south wall was practically destroyed; the others were not much injured, but no longer plumb, as they undoubtedly were when constructed. The east wall was in best condition; the outer face was nearly vertical; the top of the highest stone remaining in it was above the bottom of the lowest. The general appearance of the wall indicates that it was somewhat higher. After the stones were thrown out there remained a deposit of loose material, composed to some extent of very scanty soil and of humus from decayed weeds and leaves, but principally of disintegrated sandstone which had settled or washed in. Its thickness above bedrock was about. All this was carefully examined. Near the center, a few inches above the natural bedrock, were some fragments of human bones which seemed to belong to two adults. Another adult body, or skeleton, bundled or closely folded, had been placed against the south wall, which had partially fallen in on it. Pieces of long bones, including heads of two femurs, the ends of the bones at an elbow, phalanges, and a fragment of rib were found in a space less than a foot across. Nothing more of them remained and nothing else was found. CAIRN The fourth grave in order was worked out in the same manner as the first. On the outer face the north wall measured, the south wall, the east wall, the west wall. The interior lengths were: North wall, south wall, east wall, west wall.—Columella bead from Cairn Devil's Elbow.ToList Near the center were a few fragments of bone, with a columella bead long, perforated lengthwise. It is shown in figure. To the east of these, also to the south, were other fragments, indicating, in all, at least three interments. CAIRN In grave the walls on the north and the south were entirely torn out except some stones in the bottom row of each; the upper portions of the east and the west walls were also gone. For this reason the rocks lying outside the structure were not removed. The north wall, outside, was long; the south wall; the east wall; the west wall. The corresponding inner measurements were, north wall; south wall; east wall; west wall. But as the position of the corners was uncertain these figures are no doubt somewhat in error in either direction. Columella bead from Cairn Devil's Elbow.ToList The central portion had never been disturbed, the stones lying as they were put originally, except for a possible settling due to their weight; the top of the rounded heap was about high. This justified the hope that something might be discovered beneath them. But although the entire space within, up to the fairly defined inner faces of the walls, was thoroughly cleaned out down into the untouched gravelly subsoil, no trace of a bone or other indication of a burial was found. The only artificial object was a section long of a columella perforated lengthwise, apparently lost by the wearer, as it lay on the natural surface. This is shown in figure. CAIRNS ON HELM'S FARM To the north of the Ross farm, on the ridge which is owned by Daniel Helm, are three stone graves made of shapeless limestone blocks such as cover the surface around them. One of these is about yards from the bluff, on a knoll capped with the sandstone; the others are at the break of the ridge. All have been opened, two of them practically demolished. Those on the end of the ridge are only apart, measuring from their adjacent margins, and were about in diameter as built, both being somewhat widened now owing to the stones having been thrown outward from the central parts by hunters. Each was probably high. The smaller, being least defaced and nearly free from timber, was entirely removed, except a small portion along one margin, and the earth beneath it examined down to the bedrock. There was no sign of a wall; but one that would stand could not be made with stones rounded by weathering. Remains of at least three bodies were found. One was laid in a crevice; only a few fragments of the long bones were left. With scraps of bone from another body were four teeth worn almost to the roots. They were not close together, but this was due to small burrowing animals which had scattered them.



Of the third body, a few pieces of arm and leg bones remained. By itself, loose in the earth, was a single molar, not in the least worn, and with a very small root. So far as appearances go, it seems the bodies were laid on outcropping rock, or in crevices, and stones piled on them without any attempt at order or arrangement. The graves on the Helm farm are merely piles of stone, such as are found in various States. Those on the Ross place are of the same type as the cairns on Lost Hill at the mouth of Gourd Creek in Phelps County, but of a more advanced form. In both places flat stones were laid to inclose the burials. At Lost Hill, however, there was seldom more than a single layer, while at the Devil's Elbow a regular wall was built, seven superposed slabs being observed at one point with a certainty that others had been placed above these. They are not of the same class as the walled graves found in earth mounds along the Missouri River. In the latter, the inner face of the wall was as smooth and regular as it could be made, the outside being rough and upheld by stones and earth piled against them; while in those on Big Piney care was taken with the outer face which, it seems, was intended to be left exposed to view, while the inside was rough and hidden by stones thrown in. But no inference must be drawn from the different methods of filling or covering the vaults after they were completed. Along the Missouri, earth was abundant right at hand, but stones had, as a rule, to be carried some distance; while on the bluffs of the Gasconade and its tributaries the reverse was the case. Petroglyphs, above the level of the river bottom, are reported to be cut in a bluff facing the Gasconade River on the east side, below the mouth of Big Piney. A rock shelter not more than wide and deep is near the top of the bluff overlooking the Gasconade, almost opposite the mouth of Big Piney. It contains a quantity of ashes, but as it was frequently resorted to by bushwhackers during the Civil War, and is still much used by trappers and hunters who camp in it, these are probably not due to Indians.

**ASH CAVE** So near to the county line that there is some uncertainty as to whether it lies in Pulaski or Phelps County is Ash Cave in a bluff over Baker's Lake, an artificial pond, west of Arlington. The cave is small, and notwithstanding its name it contains no ashes or other remains of occupancy. The great number of large rocks on the floor makes examination impossible.

**CLEMMENS CREEK CAVE** At the head of a ravine opening into Clemmens Creek, about south of Dixon, near the Piquet orchards, is a cavern with an entrance wide and high. The depth is to loose rocks and clay, partly from the sides and roof, partly washed in through side caves and crevices. There is a small amount of cave earth along one wall, but it is damp, moldy, and covered with a growth of minute green fungus. Most of the floor, however, is of clay strewn with loose rocks and swept over by water at times. There is no refuse, and the cave was never fit for habitation.

**CAMDEN COUNTY ALONG THE NIANGUA RIVER** It is widely known that many caverns exist along the Niangua River and its tributaries, in Camden County, especially in the vicinity of Hahatonka, or, as it is locally termed, "Tonky." This is one of the show places of Missouri. The name includes a post office; a store; a school; an immense spring coming out at the foot of a cliff; the creek formed by this spring; a lake of several hundred acres, made by damming the creek; a picturesque ruined mill with the usual accessories of such a building; numerous caves; and a magnificent, but unfinished, residence crowning one of the hills. This has already called for an expenditure of half a million dollars; and at least double that sum, additional, will be required to complete it in accordance with the original plans. Whether it be due to the national appreciation of architectural beauty or the national appreciation of ability to do things in a large way, the palace seems to impress most visitors more than the remarkable combination of natural features. The principal caves in the vicinity have distinctive names, as "Onyx" (there being two thus called), "Robbers'," "River" (this because there is a stream in it which can be crossed only in a boat), "Bridal," etc. Others are named for the owners of the land, or from some peculiarity, as "Dry," "Bunch," "Morgan," "Arnholdt." Many are not deemed of sufficient importance to have specific titles. All those named were visited, as well as a number of the others. A detailed description is not necessary. Not one of these caverns has ever been occupied unless as a temporary shelter. Some are flooded at intervals, either from the outside or by interior drainage; some have very restricted entrances and are dark at the front; some have rock floors or muddy bottoms; some can be entered only by clambering over talus to an opening at the bottom, or near the bottom, of a sink hole.

Some shallow cavities, which under different conditions would be available as rock shelters, are in places difficult of access, remote from water, or otherwise unsuitable. Some of these caverns have wonderful deposits on ceilings, walls, and floors, rivaling in beauty and ornate patterns those of the most famous caves of the country; and if they were easily accessible or could be conveniently explored, would attract hosts of visitors. One in particular, the "Bridal Cave," so called from a mass of stalactite material fully from side to side at the top, which hangs in delicate translucent loops and folds and convolutions, equals Luray or Wyandotte for beauty, though not for extent. It was reported that two walled graves stand on a "bald" on the farm of Will Robert Eidson, on the divide between the Niangua and the Little Niangua Rivers, about north of Roach post office. They were described as "rocks laid up in a regular wall about high, and about steps square, and filled up inside with rocks." A visit to the site disclosed two ordinary cairns, made by throwing weathered limestone boulders into a rounded heap. Both piles have been scattered, and as they now exist one is about, the other about across. Such exaggerated, misleading descriptions are common, and result in much fruitless investigation. Several caves are reported in the vicinity of Toronto, in Camden and Miller Counties; especially the Cokely Cave, from Brumley on the Linn Creek road. From the descriptions given by informants, none of them appear to be suitable for habitation. Many cairns exist on the ridges in this region, especially on high points overlooking valleys. All of them were built up with chert or limestone blocks, and all are more or less torn up. So far as could be learned there is no sign of a wall in any of them. In the present state of knowledge, Camden County offers no inducement for archeological research.

**A FOSSIL CAVE** The geological deposits in this region comprise three principal formations which are named in the State report as the Jefferson City limestone, the Roubidoux sandstone, and the Gasconade limestone. It is in the last (which is the lowest) that caverns are found. In various places erosion, either internal or superficial, or both, has formed crevices or sink holes through which the disintegrated sandstone finds its way into caverns below, where it accumulates and hardens until more resistant than when in its original condition. Further erosion has in several places carried away the limestone from around these intrusive masses, allowing them to project above the present surface. Sometimes, where the sand piled up, they resemble haystacks; but usually they are of indefinite form, having spread out on the floor of the cavern, as such material will do in a shallow stream. An interesting example of this action is the "Standing Rock," west of Linn Creek, the county seat. Here was formerly a large cave with an eastward trend until near the mouth, when it turned sharply southward, the opening being in the direction of a little stream. The lower end of this cave became solidly filled with sand, and the water found an outlet farther back. All the limestone which formed the roof and walls of the middle portion of the cave is gone, a narrow ravine marking its course. The sandstone obstruction held its place, and now extends directly across the ridge between the two ravines. Its surface is an exact cast of the interior of the cave which it filled, and nodules of chert, remaining when the limestone dissolved, are still imbedded in its surface. The line of demarkation between the limestone matrix, where this still exists in part, and the siliceous filling is as distinct as that between the stone and brick in a building. The loose cave earth shows plainly under the sandstone near the former mouth of the cavern. Plan and section are shown in figures.

**MILLER COUNTY WRIGHT CAVE** A mile and a half west of Brumley, near Glaize Creek, is Wright, or Brumley, Cave. The entrance is high and wide. At from the mouth the width contracts to. The depth is in daylight to a stalagmite floor. Dry cave earth extends for from the entrance, at which distance it reaches tough, sticky clay; this continues to the stalagmite. Above the clay are growing stalactites. Plan of Fossil Cave.

**To List** In front of the entrance were a few flint chips, but no indications of pottery or shell. A small implement, shown in figure, was found which is of interest because it was worked to a sharp point at one end of a narrow drill, while the other end widened into a squared form with a straight base which was dulled and polished from use as a cutting tool; the entire surface was polished from long service. An object of this kind would be highly suitable for mending moccasins and leggins. Finding this and nothing else strengthens the probability that this cave was used as a temporary camping place, but was never permanently occupied.—

**Section of Fossil Cave.** Facing Barren Fork of Tavern Creek, on the farm of northwest of Iberia and southeast of Tuscumbia, is a cave celebrated by reason of a provision in the will of a former eccentric owner. There is a small cave which has an opening in the bluff, a few feet to one side of the larger cave.

This can be reached only by means of ladders long. Jack Wilson came from Ireland and settled on Tavern (or Cavern) Creek in. For a number of years he lived in this cave, with his family. He died in ,leaving instructions that his body was to be packed in salt and placed in the small cave, "with a ten-gallon cask of good whisky," the entrance then to be sealed up. In order to carry out his last wishes, and at the same time to give him a "Christian burial," his wife had all his internal organs removed and interred in a cemetery; his body was filled with salt, and placed in a coffin, which, according to his wishes, was deposited in the cave, with the whisky. On the seventh anniversary of his death the whole community was to assemble to "eat, drink, and be merry." For many years residents in the vicinity had used the cave as a place for festive gatherings; but this occasion was to be on a scale beyond anything previously attempted. If necessary, Scriptural methods were to be employed; that is, messengers were to be sent out in all directions, urging every one to come. The floor was to be enlarged, and a platform erected on it. When all were assembled, the whisky and the coffin were to be brought from their resting place and set on the platform. Then certain famous fiddlers were to ascend the platform and play, while the guests danced. When the whisky was exhausted, and the fiddlers in the same condition, the picnic was over and the assembly would disperse. The coffin was then to be replaced in the little cave, which was to be again sealed up, not to be reopened until the Day of Judgment.—Perforator and knife from Wright Cave.

**To List**

The preliminaries were carried out according to program, but when the time for the celebration came round the people were more concerned with the Civil War, and especially in the activities of the bushwhackers who infested that part of the country, than they were in picnics; and Wilson's resurrection was brought about by persons whose identity was never discovered. They got into his tomb in some manner, drank all the whisky, broke open the coffin, and threw Wilson's bones to the outside, where they were scattered down the slope. Horrified relatives gathered them up, replaced them in the cave, sealed it again, and Wilson is still there awaiting his final summons. The entrance is high and wide. Dry cave earth extends for; from this point it continues, partially filled with fallen rock and stalagmite, farther, or in all, in plain daylight, at which distance the cave makes a turn; and the cave earth was followed in this to complete darkness without coming to its termination. Beginning from the entrance and extending for, a narrow row of loose rocks fallen from the outcrop of stratum along the center of the roof lies on the surface. The cavern here measures in width. There is a wet weather stream along one wall, but the amount of water passing out is never large. Solid bedrock, with patches of cave earth on it, is exposed, in slightly rising strata, for from the little bluff at the mouth; within this it is hidden by the earth which gradually rises to a height of ; but some of this rise may be due to increased elevation of the rock floor. The entire cave can be easily cleared out to the stalagmite; and it would be advisable to remove at least portions of this in order to ascertain what may lie beneath it. Refuse appears in considerable quantity in the bottom of the little stream bed and under the receding walls; and likewise a small amount outside the entrance. But the bedrock crops out frequently in narrow ledges between the mouth of the cavern and the foot of the hill, so very little débris of any kind lies on the slope outside. Some alteration of the surface of the earth floor has taken place in consequence of the construction of platforms; but aside from this it has remained practically undisturbed.

**BAGNELL CAVE** A large cavern is near the top of the "Bagnell Hill" on the Bagnell and Linn Creek road, on the right (south) side of the Osage River, and about from the town of Bagnell. On account of the "millions" of bats which shelter in it, the name of Bat Cave is applied to this as it is to many other caves in the region. The entrance is so small that the cavern can be entered only by crawling in; and as no traces of Indian remains have ever been observed in it, or around the front, no examination was deemed necessary.

**BODE CAVE** Half a mile south of St. Elizabeth is the Ben Bode Cave. The roof has fallen in near the front, leaving the original exterior standing as a natural bridge a few feet wide. The present entrance to the cavern is behind the bridge. It has a wet, rocky floor, and much water flows through it after a rain.

**LUCKENHOFF CAVE** On farm, three-fourths of a mile south of facing Tavern Creek, is a small cave with a rocky floor. The entrance is nearly blocked with a mass of stalagmite, behind which the cave is dark.