

and marks of another where the relic has been broken. How much longer it was we can not tell. In Fig. 14 we have still another tube, with only three holes, placed farther apart than in the preceding, and oblong instead of round; and in Keller* there is figured almost an exact counterpart, except that the centre hole is placed a little below the level of the other two. This last is called a weaver's shuttle, and, if our relic may be similarly named, we have evidence that weaving was another occupation of his people. And other facts are at hand to show that they did weave. Among the stone relics is one of those peculiar oblong pieces of polished plate which have sometimes gone by the name of "gorgets." These pieces have one to three holes drilled through them, supposed to have been made to carry the object by. Still another and more probable purpose, however, is for weaving, the holes being used to regulate the size of the thread. But all doubt vanishes when it is found that some "ash-pits," in which most of the relics have been found, contain pieces of coarse matting. This has been carbonized, so that it can not now be ascertained of what material it was made. Enough, however, remains to show that the fibers running one way are secured by twisted cords running across, and woven in and out between and around them.

As is very well known, the copper mines of Lake Superior were extensively worked at an early day, and articles made of the copper are found all through the valleys of the Mississippi and Ohio Rivers. The present cemetery is no exception, for fragments of copper are quite common. The pieces are mostly small, however, and do not seem to have been in very general use. In all probability the metal was highly prized, and used simply for personal adornment. The most of the pieces are simply coiled or rolled, and Fig. 15 represents common shapes. These two pieces still have the remains of a leather thong in them, shown; that they had been used like beads. Another piece is a sort of copper bell, made of a single piece of metal, with a hole in the side, a handle, and a small piece of copper inside, which rattles when the bell is shaken. Still another large piece is like a cross with two arms, the use or purpose of it being entirely unknown. Objects like it have occasionally been found elsewhere. Squier and Davis* have figured a similar piece, but of silver, which they refer to the French Jesuits; and Professor Putman figures another,† which differs in having only one arm. He considers it an ornament, "made in its present form simply because it is an easy design to execute, and one of natural conception." We must beg leave to differ from him in this latter point, for, if the design is one of natural conception, why do we make a point when it is found? Why are the forms like it not more numerous, and why does not the ornamental pottery have innumerable examples of it in the ornamentation?

Beads made of pieces of fresh-water and marine shells are found among the other remains. Sometimes pieces are cut from the mussel-shell, rubbed round, and then a hole bored. Sometimes specimens of *Melania* or *Paludina* had holes bored near the aperture, and were then used as beads. The beads made of marine shell show that some system of barter or commerce existed with the Atlantic Ocean or the Gulf. Quantities of shells, of species of the genus *Unio*, "fresh-water oysters," are found. They go to show that shell-fish formed an article of diet of the race. And not only did they eat the animal, but they made good use of many of the shells. Many of them have been ground off at the edge, and were used as spoons or ladles, while others have holes punched in the valves, and were probably used for hoes in their agricultural operations. An examination of many of these shells show no difference between the many individuals of the same species now found in the river. Still, a change could hardly be expected in the inhabitants of any locality, without a change in the conditions of life, and there is no evidence of a change in conditions since the shells were taken from the river.

The flint pieces, of various shapes, are quite numerous, and many of them beautifully worked. In Fig. 16 are shown some of the war arrow-points, and they are so abundant that one is almost inclined to believe the people who made them were not so peaceable as has been supposed. In Fig. 17 is shown one of the "leaf-shaped" flints, some of which are beautifully worked; while, in Fig. 18 are some of the drills used in boring holes in bones or shells. There is one thing to be noticed

among the flint pieces. It is said that, in war, arrows like those in Fig. 16 were exclusively used, while, in hunting, points which were notched at the broad or lower end were used. Now, the peculiarity noticed is the scarcity of points of the latter character. For, out of 316 worked flints, selected from some thousands, there are but four which are notched at the lower ends. One of two things is to be inferred. Either that the race was more warlike than agricultural, and used horn arrows in hunting instead of the notched ones; or else they were manufacturers of war-points for other tribes, and lived peaceably by hunting, fishing, and agricultural labors. All that we know could be interpreted more in favor of the first view than of the second, for, while we are sure they were agricultural to a certain extent, this fact would not be opposed to an argument for their warlike character. The Southern Indians, within the historic period, were at war all the time, and still raised quantities of maize.*

The fact of the race of people here buried raising maize is established by finding, in some pits, quantities of it completely carbonized. Corn seems to have often been placed in pots and buried with the bodies, to serve, perhaps, as food for the journey to the spirit-land. Another of their agricultural labors was that of raising tobacco; for, in common with nearly all the other North American races, they were smokers. Numbers of pipes, of various styles and materials, are found here. Some of them are of the red clay known as Catlinite, others of ordinary limestone. In Fig. 19 is shown a pipe carved out of hard limestone. It is very highly polished, and considerable skill is exhibited in the carving of the head. It is evidently meant for a wolf, and the teeth, though interlocking in a peculiar way, are still tolerably true to nature in having the long canines.†

The stone implements are much the same as those found in various parts of the country. There seems, however, to be a remarkable paucity of grooved axes, there having been but two found so far. There are numbers of the ungrooved "celts," as well as of sling-stones, blunt at each end, but with a groove in the middle by which to fasten the handle. Some of these stones were also probably used as sinkers for nets in fishing, and are very similar to those found in Swiss lakes, as noticed by Dr. Keller. Rubbing-stones for polishing celts, hammers, anvils, pestles, and corn-pounders, are also abundant. Some pieces of a coarse, gritty sandstone have shallow grooves worn into them, which are supposed to have been used in rubbing down some of the bone or flint implements. Other pieces, with similar grooves, but made of close-grained sandstone, were probably used to straighten the shafts of the arrows. The shaft, at first wet and green, was rubbed up and down in the groove, and all the bends or twists thus taken out. Stones like these have been used by the Indians of the historic period.

Reference was made in the early part of this article to the name of the "Pottery-Field," given to the burying-ground. It may be inferred from the name that pieces of pottery were abundant, and the number of vessels taken out fully confirms the appropriateness of the name. These are all of one general shape and character. The material is a clay mixed with finely-powdered shells, and was baked in the sun. Nearly all the vessels are furnished with four handles, and are generally devoid of any ornamentation. Some have salamander-shaped handles, and the few that are ornamental have simply cross-lines and stripes with lines running round the vessel near the top, and perhaps a few dots. Though some of them are very well formed, they do not show any great advance in art.

Among the most interesting remains of any race of people, are the rude beginnings of art they have left behind them; and, though the people under consideration did not have, as far as we know, any written language, they have left a few memorials of their artistic feelings in the shape of some carvings on bone, and a few inscribed stones. The most interesting of these are here figured. Fig. 20 represents, on a piece of limestone, the head and forelegs of some curious animal. What is meant is hard to imagine. The teeth are marvellous,

* Jones, "Antiquity of the Southern Indians," p. 7. "When, in 1730, the whites interposed their good offices to bring about a pacification between the Tuscaroras and the Cherokees, the latter responded: 'We cannot live without war; should we make peace with the Tuscaroras, with whom we are at war, we must immediately look out for some others with whom we can be engaged in our beloved occupation. For notice of agricultural labors, see Jones, pp. 296 to 320.

† Many other forms of pipes from this locality are given in the "Journal of the Cincinnati Society of Natural History," vol. iii, Nos. 1, 2, and 3.

* *Lic. cit.*, Plate 41, Fig. 9.

** "Ancient Monuments of the Mississippi Valley," p. 208.

† "Eleventh Annual Report of the Peabody Museum of Archaeology and Ethnology," p. 307.