

**CHIPPED FLINTS AND IMPLEMENTS  
FOUND AT THE ROCA INDIAN  
VILLAGE SITE.**

The whole state of Nebraska is one veritable field of archaeology. From the chert beds of northeastern Kansas, so graphically described and so thoroughly explored by Hon. J. V. Brower, to the great mounds along the Missouri, is one continuous bed of chipped flints, stone axes and pottery shards.

After every summer rain the farmer boy gathers his harvest of flints to throw at the birds or to destroy in some manner which a boy only knows the inwardness of; at least many thousands of valuable specimens are lost to the realms of science in this way every year. And what wonder when not one out of a thousand knows the manner of making their find available even if they appreciated the value of the find, which they do not. You find stone axes of exquisite workmanship adorning piles of cobblestones by the roadside. You see arrowheads, perfect in their every outline, used for playthings by the youthful progeny of toiling husbandmen—possibly an embryo ethnologist, who knows? This condition should not exist; every citizen should know a valuable specimen and farther, should know how its value could be added to the sum total of existing evidence, and the many questions now puzzling scientists would soon be definitely answered.

**Nebraska Flints.**

In describing the flints taken from the Roca site, I might well caption the article "Nebraska flints" as the variety covers nearly the whole range of flint implements found in the state; in fact we might almost say the variety found in any ancient village site covers the variety found in the basin of the Missouri river. So extensive an area covered as it is by some fifteen or twenty varieties of flints is in its self a startling proposition. Shall we suppose then that but one stock or stem of the human race-tree has shadowed this particular part of the earth? How shall we account then for an expression from the pen of Professor Petrie, the renowned Egyptologist, when he says that flint implements, no matter from where they come nor by whom found, so nearly resemble each other that it shows unmistakably a common origin for the art of making them. So need we wonder that the specimens found scattered over the whole broad area of this one little state are so similar?

Of course, they are all Neolithic, the archaeology of this state has not yet been developed beyond the surface stage and has been handled by amateurs almost exclusively, and we can scarcely expect untrained hands to bring to light the older types, even if they exist—which is exceedingly doubtful.

The flint of which these arrow-heads

are made is not a native of this state. Many of the chips, so numerous in the Roca site are certainly from the chert beds described by Mr. Brower; he has this to say in reference to the chert beds, in his memoir "Quivira:"

"The remarkable deposit of bluish-gray flint found in the neighborhood of the village described, and from which nearly all the chipped implements of the region were made, is abundant in places east of the Dakota formation of this region, which borders the surface limit of the permo-carboniferous lime-stone and chert, not farther west than Lindsborg and Salina, situated on the Smoky Hill river. That fact was a perpetual invitation intensely attractive to the barbarians who depended upon chipped implements for the arms of the chase, the weapons of war and as a necessity in peace, and the supply, conveniently available about the fertile region of the upper course of the Kansas river, must have characterized the locality as so very desirable, and its location was known so far abroad, that contending tribes fought for its possession, with herds of buffalo, fruitful valleys and quarries of flint, the prizes for which the savage man staked his life."

Quite one-half of the arrow-points and flint knives found at this Roca site are undoubtedly from the above described deposit, nearly all the spalls and bits found strewn so thickly about the lodge circles are of the same material. The presence of these spalls on the ground indicates one of two conditions; either the inhabitants of this village site brought the blocks of flint thither and made their weapons with their own hands or they carried innumerable quantities of spalls here for some purpose. One would expect to find pieces of flint large enough to form an average arrow-head if the former condition existed; but this is not the case. Among the thousands of spalls not one can be selected that would make a respectable arrow-point or knife, although each piece has invariably a very thin sharp edge and seems to have been selected on this account. Some of the larger pieces show signs of having been again chipped to give a better cutting edge and not a few show marks of a whetstone as though they have been rubbed on some hard substance to enhance their cutting powers.

**Flint Brought From a Distance.**

From the above observations one is led to the conclusion that the flint was not worked into arrow-points on the ground, but the implements were brought from a distance after they were chipped into form; that these innumerable spalls were also brought here after they had been chipped from the original blocks, and were selected on account of their cutting edge being well developed. But there is one evidence which seems to

indicate that the inhabitants of this village knew how to chip flint for themselves; this consists in one perfect implement which I found not made of flint but from a sliver of a red boulder, which is quite common in the glacial deposit that covers this part of the state. This implement has a rounding point chipped to a nice cutting edge. It is two inches long by one and a quarter wide and is a very creditable piece of work. It was doubtless made from one of the rectangular, broken boulders referred to in a prior article, as the material is in every way similar to them. Of course this may have been made elsewhere, but there are quantities of chips of this material in many of the ledge circles and this leads one to believe they were made on the ground. I also found pieces of the same material which showed unmistakable signs of work but had never been chipped to a recognizable form.

Of the specimens not brought from the Kansas chert beds there is quite a variety; a clouded pink or flesh color and white specimen was found; I have not been able to trace this to its original home but it is a common material for arrow-points in Illinois. The substance is very opaque, resembling very white celluloid in color and the pink clouds are beautiful in their shading. This flint is lighter in weight than the chert of Kansas but the workmanship on the specimens found does not seem so good. The points are rounded like the point of an apple leaf while the Kansas specimens are pointed more like a willow leaf. In time I may be able to trace this kind of flint to the original quarry; now it seems from the data at hand to belong east of here.

The pure white glassy-looking specimens are common in Iowa and Missouri; the implements made from this substance seem to be brittle as nearly every specimen is broken in some way, frequently only the point is found.

Another substance, which enters into the composition of the arrow-points found, is a greyish white material, very hard and very tough; it has spots about the size of a pin-head which have every resemblance to a fossil; the groundwork which contains these curious fossil-like deposits is semi-opaque and also contains little threads running in all directions through it. It resembles very much the substance usually called "moss agate," but if I understand it aright, is not the same. A bed of similar deposit is found along the Kansas-Nebraska line west of the center. The deposit crowns the bluffs in many places, is an unstratified mass about a foot thick and may be a volcanic lava of some kind. I observed it there a number of years ago but have never seen a treatise on the subject. I have lost my specimen taken at that time but if my memory serves me right one class of material used for arrow-