

ARIKARA USES OF CLAY AND OF OTHER EARTH PRODUCTS*

The means of staining or dyeing willow bark, for the decorative patterns in making baskets, was by burying the strips of bark in the black mud. Shteshta-kata, in making her baskets, buries the bark strips in the black mud of a spring flowing out from a bed of lignite near her house, but she said that the black mud of humus soil of the river "bottoms" would do as well. (Sample of the mud used by Shteshta-kata was sent to the museum for analysis).

Another product of a mineral spring which was used for dyeing, or rather for black designs on skins, and for outlining designs for filling in with beadwork or quillwork, is spoken of by the Arikaras as "native ink". It is a brown-black, heavy viscous substance found in one certain spring on the Ft. Berthold Reservation. So far as I have been informed, this is the only spring where it occurs. The Arikaras go to this spring for it, and use it fresh, or it is dried and packed away for future use. The dried substance assumes a rough granular form. When desired for use, the dry form is simply wetted with water to the desired consistency (A sample of this substance was sent to the museum for analysis).

A fine white powder, made by heating selenite crystals, was used for cleaning, brightening, and giving a gloss to porcupine quill work. This powder was also used for cleaning and finishing arrows or any other objects in which glue was used. The fine, white powder absorbed the superfluous glue and gave a smooth finish to the work.

A favorite play among young boys of all the tribes of the Missouri River region was modeling in clay. Any sufficiently tenacious clay was used by the boys in shaping the forms of buffaloes, deer, horses, dogs, elk, and other animals and men. It was an occupation which would engage the attention and activity of boys for hours, and they made most wonderfully striking and life-like representation.

There are no deposits of sodium chloride in the Arikara country, nor within hundreds of miles of them; therefore, they resorted to the use of the water of alkaline springs and ponds for cooking purposes to flavor their meat. Or, when the water evaporated, leaving an encrusted deposit of alkali on the flats,

* Notes on Field Work of 1923

this was gathered up and saved for culinary purposes. At any time they wished to use it, the alkali dust was put into water and allowed to dissolve and the earthy matter to settle. Then, the clear alkaline solution was drawn off to use in cooking. Chloride of sodium was sometimes obtained from the Pawnees or other tribes in Nebraska and Kansas, or was brought directly by some of their own people in southern expeditions, but it was so precious, being brought so far, that it was not used commonly by the Arikaras, but only as medicine. In the medicine bag of a certain Arikara old woman, at the present time, there is a small lump of salt which has remained over from the former times of scarcity and preciousness of that commodity. It was probably placed in the medicine bag a hundred years ago, and has been preciously kept until now, when conditions of commerce and transportation have become so changed that salt is everywhere a very common article. [A specimen of alkali dust was sent to the museum for analysis.]

Various clays were used for various paints, certain clays for red paints, others for yellows, blue, black, and so forth. An old man of the Arikara engaged to get for me, specimens of all the clays, and to make a set of all the paints, teaching me the process, and to make on a cotton sheet a chart of all of the Arikara honor marks of reference. For the reason that the old man had an attack of rheumatism soon after this, he was not able, last fall, to carry out his engagement, for, on account of that, he was unable to wade into the river to obtain certain one of the required clays from the clay-bank under water, and he was unable to go to certain distance places to obtain other clays for other colors. One certain white clay was, and is, used for the purpose of cleaning articles of clothing, furs, feathers, and such things. This clay was cooked with dog fat and then stirred and kneaded like dough. After this preparation, it was packed away for use at any time it was required. When Arikara girls go away to boarding schools, they are provided by their loving and careful mothers with a supply of this prepared clay for the toilet. It is considered superior and is much preferred to the white people's toilet soaps.

The Arikaras and Pawnees were acknowledged by neighboring tribes to be superior potters in former times. An old man of the Yankton-Dakota told me that the women of his people used to go to the women potters of the "Padani", i.e., the Pawnee or Arikara, and pay them fees to teach them the potter's art. He said, though, that the women of his people never equaled the work of their teachers, the Padani.

The material used in pottery was a certain, fine tenacious clay found in deposits in various places in the upper Missouri River region, together with a tempering of crushed and pulverized stone. Granite boulders of glacial origin were used to heat, for use in the sweat-lodge. After being heated in fire many times for this use, they become friable. Such disintegrating boulders were taken by the potters and crushed very fine. (Specimens of such boulder and of the resulting pulverized stone were sent to the museum.) The potter takes a quantity of the clay, so much as she judges will be required for a pot of the size she has in mind. She places a flat boulder which she has for a working table on a hide, spread on the ground. The hide is for the purpose of catching any of the loose crushed stone, which may fall off from the flat stone working table, so that it may be gathered up again for use. She takes the lump of clay on her stone table and thoroughly kneads it with her hands, and mixes in what she judges a proper amount of the crushed stone for tempering. Now she shapes up the tempered clay, working it out from the bottom, upwards to the top. When she has somewhat approximated the shape of the pot she takes in her left hand a smooth, round cobblestone, which she inserts in the pot. In her right hand she takes a wooden tool like a flat club about eight or nine inches long, with which she beats the clay against the shaping stone held in her left hand. When she has drawn up the clay to the proper shape and sufficiently thin she lays on any desired pattern of decoration by incision with a small pointed an edged wooden tool, or by pinching and crimping the edge of the pot with thumb and finger.

When the shaping and decorating are finished, she sets the pots away for twenty-four hours in a place where they will be protected from air currents or from any jarring. After standing for twenty-four hours, the pots are sufficiently dry for firing. For the purpose of firing the pots, a fire-bed of sufficient size, made of dry elm-wood, was laid. After kindling, this was allowed to burn down to a good bed of coals. A place is hollowed out in the bed of coals, and the pot is carefully set in. Then, the coals are heaped up around and in the pot, and then more, dry elm-wood is laid on and around the pot, sufficient to heat the pot to a red heat. The fire is allowed to burn down, and the pot to slowly and very gradually to cool. When cooled, the pot is finished by greasing and rubbing it, which is said to give it a fine black glossy appearance.

Elm-wood was used for the firing process for the reason that it burns quietly and steadily, not snapping and crackling as some other species of wood do.