THE METHOD OF MANUFACTURE OF SEVERAL ARTICLES BY THE FORMER INDIANS OF SOUTHERN CALIFORNIA*

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In my investigations among the remains of the aborigines of the Pacific coast, south of San Francisco, I was always rewarded by finding the olla, one of the most beautiful utensils of genuine aboriginal workmanship. The pot is usually of globular form with a narrow opening on the top, sometimes pear-shaped, and others of the Mexican form with a wide opening. Illustrations of the main types are found in Bancroft's "Native Races of the Pacific States," Vol. IV, page 693, from my own drawings; and in Rau's "Archaeological Collection of the National Museum," page 36, from collections made by me two years ago. (Figures 1 and 2 represent two common forms of these pots, drawn from specimens in the Peabody Museum, collected by Mr. Schumacher.—F. W. Putnam.)

The stone of which this utensil for culinary purposes, and some other articles of our Indians, were worked out, has been well known and in use for like purposes since the classic times of Theophrastus and Pliny. The Magnesian stone, and the kind quarried at Siphnus and Comum—the lapis ollaris of a later period—of which, in ancient times, vessels were hollowed out in the turning lathe, and carved, coincide in nature and composition with the potstone of our Indians. The stone is steatite, and is usually of a greenish gray color, sometimes showing hexagonal prisms in stellated groups, with pearly lustre and greasy touch, especially when reduced to powder. It changes in some portions of the same ledge into a more flaky and micaceous character; while in neighboring deposits on Santa Catalina Island, it exists crystallized in stellated groups of well-developed hexagonal needles of glistening apple color, which are easily detached from the weathered surface. The living rock is not as bright or shining as are the fragments of pots that have been exposed to heat; it loses its greasy character the more a utensil has thus been in use, and the color is changed to a bright metallic lead color. Some years ago I showed a potsherd, the color of which had thus been changed by fire, to a mineralogist, who pronounced it Magnesian mica.

The first information I gained of the locality of quarries of potstone, or where pots were made, was from a venerable Spanish lady while

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* From the Eleventh Annual Report of the Peabody Museum of Archaeology and Ethnology. Cambridge, 1878.

exhuming in Nipomo rancho, San Luis Obispo county, in the spring of 1874. She recollected a narrative of her mother, according to which the Indians had brought ollas in canoe-loads from the islands in Santa Barbara channel to the mainland, which they exchanged for such necessities as the islanders were in want of. Two years later, in Santa Barbara county, I received similar information from an old Mexican, then my guide. While making researches among the islands, at the joint expense of the Smithsonian Institution and the Peabody Museum, I gained the assurance, during my short stay on Santa Catalina, that the stone exists in certain places on that island, but did not then succeed in finding the quarries. But during my last expedition to that locality, in behalf of the Peabody Museum, and of which an outline is given in my prefixed letter, I made the discovery, found pits and quarries, the tools used and unfinished articles. I noticed that the softer stone usually obtained in pits, which is of a more micaceous character, was used for pots, while the close-grained rock of darker color, serpentine, was mainly used for the weights of digging sticks, cups, pipes, ornaments, etc.

While in camp at Little Springs, my attention was first arrested by a small mound of silvery hue, which same hue also extended over the adjoining ground. The mound is in front of a large outcropping rock of potstone, which I found to be an impressive witness of the tedious labors of the aborigines, it being entirely covered with marks where pot-forms had been worked out or left in various stages; some even were only begun and abandoned, while others were nearly worked out in rough outlines but still united with the living rock. At the foot of the bluff is a burrow in which, and among the débris forming the mound, many potsherds, a broken pot of which the outside had already been well worked, and even the hollow started, and a pot-form as broken from the mother rock, were brought to light, with many tools of hard slate in shape of chisels, and scrapers of quartz.

From the Little Springs we followed the cañon to the northward, and crossed the pass, easy of access from this side, into Pots Valley. It is a wide hollow cañon in which potstone, silicious slate and "float"-quartz are found abundantly. The potstone is found especially below the small spring, which makes out near the base of a very conspicuous, isolated, large rock, which stands nearly in the centre of the valley; while the slate, of which the chisels are made, crops out boldly, higher up, near the pass. Several hundred yards below the spring at the ravine to the right, going down, is found a pit; and the ledge of potstone close by forms a face in the ravine, which shows the same marks of the chisel as at Little Springs. About eight distinct marks cover the lower face, while others are obliterated by subsequent mining. One, having only been

commenced, shows the outlines of a pot-form in a circle worked to a depth of only an inch, and measures sixteen inches in diameter. Between this place and the second ravine about fifty yards to the northwestward, is another pit of larger dimension—about fifteen feet in diameter and still five feet deep—where, too, among the débris, potsherds and quantities of slate fragments and quartz are found, some of which had evidently been used in working the mine, and making the pots. Besides these places there are many more pits in the valley, and a quarry especially prominent about four hundred yards to the eastward from Pots Valley boat landing, close to the steep ocean shore. In fact, on entering the cañon by the pass, as we did, when the grand rock near the spring, the lesser cliffs and the scattered boulders can be overseen, I was struck, on examining the locality through a field-glass, by the discovery of so many silver hued mounds, the débris of pits, the rock quarries and open air workshops, so that I believed I had found the main factory of the ollas of the California aborigines. Even those not interested in aboriginal remains cannot fail to notice the manufacturing propensities of the people that formerly roamed here, and the locality was appropriately named.

In examining the slate quarry I found the rock had been first broken into accidental shape and size, and such pieces best adapted for chisels were then selected and trimmed.

The scrapers, usually made of milky quartz, found in abundance all over the island, are sometimes quite well chipped, but oftener simple flakes.

I will mention here that we detected among the chisel-marks on the living rock, as also on several potsherds, distinct signs of metallic tools having been used. These were probably of iron and like those which we frequently found in the burying-ground on the Isthmus.

Figure 3 illustrates a chisel of slate, half its natural size, and figure 4 a scraper made of quartz, of natural size.

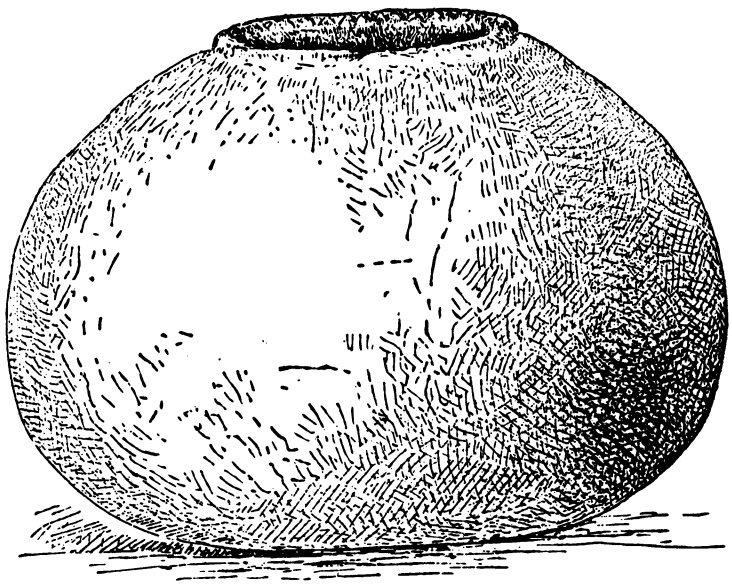
Figure 5 represents a part of the bluff near the boat landing, and will give a better idea of how the rough work of detaching the rock was carried on.

After the pot-form had been worked out, it was broken from the living rock by working under it and by the gradual pressure of the chisel around the base. The detached pot-boulder was next rounded into proper form; it was then hollowed out until a certain thickness of the pot was reached; and finally, carefully finished with the scraper. As the

thickness of the olla increases towards the bottom—it usually thickens from about half an inch at the rim to one and a half at the bottom—it requires skill to attain this evenly. No mechanical apparatus was used for this purpose (as shown by certain irregularities in the form of the pot) but simply the touch of both hands in antiposition, one gliding outside the already finished surface while the other worked inside towards the guiding hand. In this wise, with some practical experience, a greater accuracy is attainable than at first might be supposed, especially if the work proceeds from a known thickness to which reference can be taken, which is here the case as it progressed from the rim.

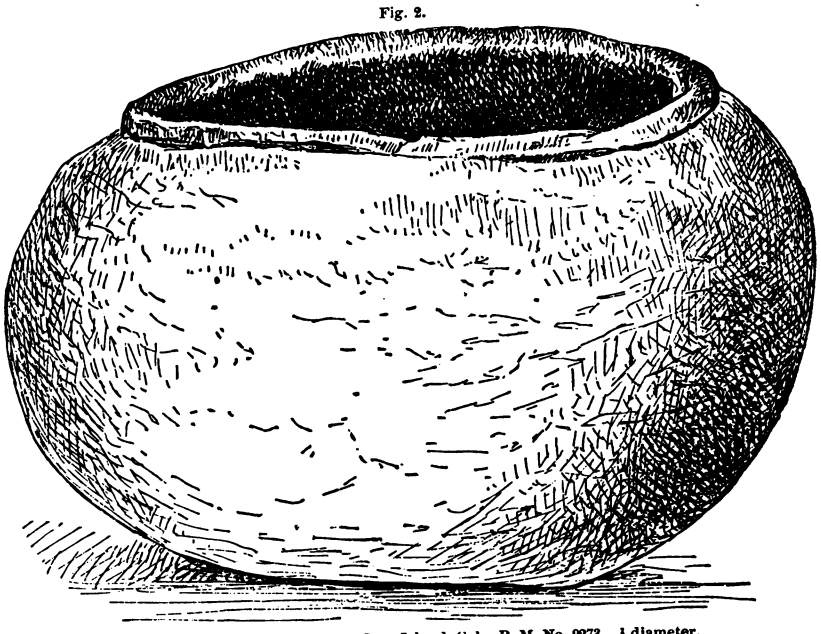
A new pot is without polish, and has only the smooth surface imparted by the scraper; while those which had been in use attained frequently a polished surface by wear, which the soft and greasy nature of the potstone is inclined to adopt.

Fig. 1.



Cooking Pot of Steatite, Dos Pueblos, Cal. P. M. No. 9202. ¼ diameter.

Fig. 2.

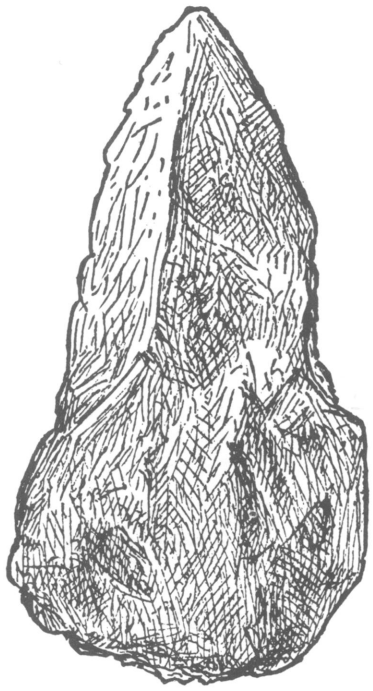


Cooking Pot of Steatite, Santa Cruz Island, Cal. P. M. No. 9273. ¼ diameter.

Fig. 3.

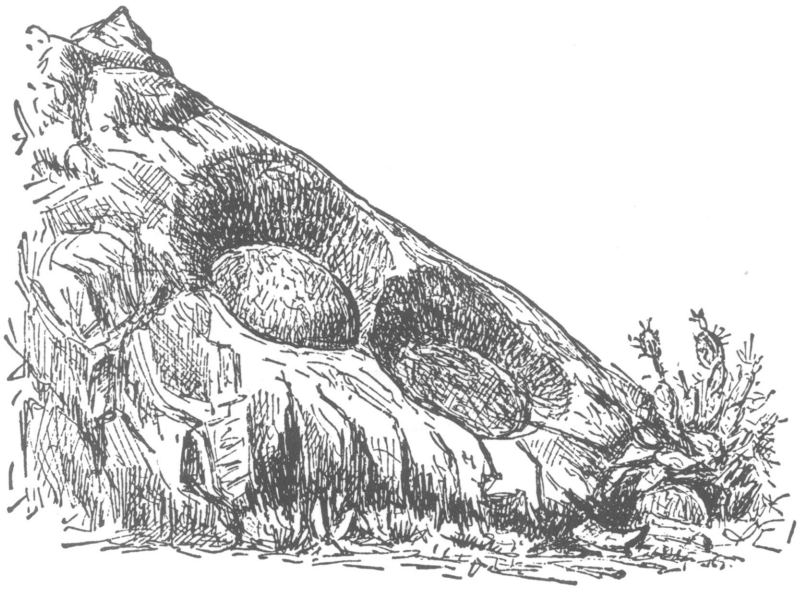
Rude Chisel of Slate used in making the steatite pots. P. M. No. 13411. ½ diameter.

Fig. 4.



Rude Scraper of Quartz, used in making steatite pots. P. M. No. 13412. Actual size.

Fig. 5.



Ledge of Steatite, Santa Catalina Island, showing the method of detaching and shaping the pots.