

YOKUTS AND WESTERN MONO POTTERY-MAKING

BY

A. H. GAYTON

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FOREWORD

The information on pottery-making contained in this paper was obtained on field trips made for the Department of Anthropology, University of California, during the years 1925-1927.¹

Description of the style of the ware is based upon thirty-four specimens: twelve Yokuts and Western Mono vessels in the Hudson collection, Field Museum of Natural History, of which photographs and dimensions have been kindly supplied by that institution; thirteen Yokuts and Western Mono vessels in the Barrett collection,² Museum of Anthropology, University of California; seven Western Mono vessels in the same museum collected by the writer; and two Western Mono vessels in Sequoia National Park Museum (fig. 2).

Photographs supplementary to the author's have been kindly loaned by Professor T. T. Waterman. These appear in plates 96 and 97.

¹ The dialectic groups, names, and approximate ages, respectively, of contributing informants are:

Yokuts: Bankalachi, Frank Manuel, 65; Choinimni, Pony Dick Watun, 70; Chunut, Josie Alonzo, 65; Dumna, Bill Wilson, 90; Kechayi, Ellen Murphy, 70; Michahai, Dinky, 55; Paleuyami, Martha Alto, 70; Tachi, Mollie Garcia, 80; Wükehumni, Mollie Lawrence, 70; Yaudanchi, Mary Sanwaihat, 95.

Western Mono: Patwisha (Balwisha), Mary Pohot, 55; Waksachi, Sam Osborn, 65; Bob Osborn, 75; Wobonuch, Jane Waley, 65.

² For illustrations of six of these specimens see Kroeber, *Handbook of the Indians of California*, B.A.E. Bull. 78, pl. 51, 1925.

METHODS OF POTTERY-MAKING

Interest attaches to the pottery-making methods employed by Yokuts and Western Mono groups since they presumably represent the extreme peripheral cases of the Pueblo non-paddle ceramic technique.³

Descriptions of pottery-making were obtained from several Yokuts informants living in the foothills, but at the time the ground was too dry from the summer season to permit digging for clay. The following January a Wobonuch Western Mono informant, Jane Waley, of Dunlap, Fresno county, made pottery to demonstrate the method: her procedure corroborated the descriptions of the other informants. Her method will be taken as typical, for pottery-making is practically identical in all San Joaquin valley groups from which data have been obtained. The variations will be mentioned below.

Further corroborative evidence appears in the notes which S. A. Barrett left with his collection. A Yaudanchi woman, apparently Mary Sanwaihah,⁴ made pottery for him. The method which he witnessed, and the models of pottery bases in his collections, are in keeping with the data obtained by the present writer.

Pottery-making was always a woman's task. If a man's family was in a strange neighborhood and he found a clay bed, he might bring some clay home to his wife. Not all women knew how to make pottery but this "was because they were stupid or too lazy to try," according to this informant, and not due to any social, economic, or functional restriction. Although pottery was sold to such women by those who made it, neither a standard price nor a professional manufacture developed. The "sale" was usually a friendly exchange for basketry or acorn meal.

Pottery was usually made in the spring when the ground was soft enough for digging and the sunlight sufficiently warm to dry the pots before firing. Large lumps of clay were frequently taken home, dried, and stored for use at other seasons. The necessary type of clay was reported as abundant by most informants of the pottery-making groups.

³ E. W. Gifford, *Pottery-Making in the Southwest*, this series, 23:353-373, 1928.

⁴ Cf. fn. 1.

In the present instance the clay was obtained from a depression in an oak-covered meadow, which was saturated by seepage and which drained the near-by area. A digging stick was used to open up the ground and loosen it sufficiently for the potter to lift or pull out handfuls of the soil. She worked at a little ledge which permitted her to get at the earth some eighteen inches below the surface. At this level the soil carried a heavy admixture of sand. Proceeding downward the amount of sand grew less, and the potter began testing the viscosity of the soil by squeezing a lump in her hand. Finally, about two feet below the surface, she reached a pure clay with a slight admixture of sand which proved to be of satisfactory quality. The sand that came with the clay acted as tempering material. All informants agreed that binding material was rarely added: it was usually a matter of getting clay without too much sand and removing bits of rock, as in the present case. Occasionally sand was added, but no other tempering material was known.

The potter took out as much clay as she could carry. The amount manufactured six pots and two pipes (pl. 102), and a seventh small pot. In former times the clay was wrapped in an old deer skin and carried home in a carrying net.

Preparation of all clay consisted of kneading and pounding the material. This was done on a broad, flat portion of a bedrock mortar. Clay was never put in mortar holes in which food substances were ground. Before starting the potter selected a short, broad, roughly rectangular pestle for pounding the clay. (Other pestles, and the openings of food mortars, appear in the background of pl. 95*a*; the typical triangular food pestle is seen just beyond the basket in pl. 95*b*). Half the entire quantity of clay was put on the rock and pressed with the hands into a solid lump. The potter sat cross-legged before it, and picking it up and lifting it to shoulder level, beat it down upon the rock. This she continued for about ten minutes, turning the lump in her hands as she worked. The process solidified the mass of clay. The pestle was then taken up and pounded into the clay. This stage of the clay-working is shown in plate 95*a*. The flattened mass of material was continually turned inward at the edges. About ten minutes of pounding brought the clay into a highly viscous condition, so that the heavy substance adhered to the pestle and partly lifted off the mortar rock at the beginning of each upward stroke. The potter occasionally tested the condition of the clay by rolling out between her hands a rope of clay such as the vessels are built from (pl. 95*a*).

After about five minutes more of pounding its consistency was satisfactory. The remaining quantity of clay was left in the sack, water was poured over it, and it was placed in the shade for use two days later.

Coiling Method

Practically all clay utensils were made by the coiling process. The first step in construction of a pot by this method was shaping the bottom. The potter took a small handful of clay and rolled it about in the palms of her hands until it formed a ball in which the clay was distributed in an even consistency. Then with her right hand she



Fig. 1. Base of pots showing method of construction, University of California collection. *a*, 1-10885, first stage, 23 mm. height, 106 mm. diam. at rim, 85 mm. diam. at base; *b*, 1-10884, first coil in place but surface not yet smoothed, 23 mm. height, 97 mm. diam. at rim, 74 mm. diam. at base.

flattened out the ball on her left palm, making a disc of the desired diameter. Its edge was turned up to a height of about two centimeters, forming a fence or brace within which the first coil of clay was set (fig. 1). The bottom thus formed was set in the center of a circular winnowing basket, which the potter placed on her lap and on which she worked until the pot was entirely built. Plate 95*b* shows the process at this point.

To form the rolls of clay the potter pinched from the supply of clay the amount she judged necessary for a rope that would just fit the circumference on which she was working. The ends of a coil never overlapped but were broken off and squeezed together. The potter whom I watched seemed remarkably adept at this, seldom making a rope that had to be broken off, and very rarely one that was too short.

In converting the lump of clay into a rope, the hands are held in no other position than the vertically parallel one shown in plate 95*a, b*. The palms slide back and forth horizontally with the clay between them. The fingers are not used. The pressure on the clay, and the

sensation cues on which judgment of the size and smoothness of the roll is based, seem to come largely from the heavy cushions below the base of the fingers. When the rope of clay emerges and is visible below the hands it is too late to rectify irregularities in its shape.

The first roll of clay was set inside the rim and pinched to it; all subsequent coils rested on the edge of the preceding one. When setting a new coil the potter held one end of the roll in her left hand and pinched it on with that hand while the loose portion rested across her right hand as shown in plate 96*a*. The roll was pinched into a thick, flat-sided ribbon as it was being put in place. While the coil was being added the potter occasionally turned the basket in contra-clockwise direction in order to keep the portion of the pot on which she was working in a convenient position before her. When the coil was in place and the ends welded together the potter dipped her fingers in water and pressed and smoothed out the junction between the new coil and the one on which it rested.

After the sides of the pot were built up about two inches the potter stopped to smooth off more completely its inner and outer surfaces (pl. 96*b*). For this she used a small chip of wood picked up from the ground, or sometimes a section of a large acorn husk. By this time the clay in the pot was sufficiently firm to allow it to be picked up and handled. Slight incrustations and bumps were dampened and scraped down with the chip or rubbed with the fingers. Generally, the scraping and smoothing movements were vertical. The surfaces were gone over in this manner after every two or three inches of coil-building until the pot was completely formed.

When the pot was entirely formed the potter went over the surface with a small polishing stone⁵ of steatite (pl. 97*a*). This served two purposes. First, it rubbed out minor irregularities in the surfaces, for though the vessel was firm enough to be handled the clay could be scraped off slightly. But as the pot dried rapidly its surface soon became harder than that of the polishing stone so that the steatite rubbed off in a fine white powder. Secondly, this powder settled into the clay and produced a hard surface which in turn became more effective in rubbing off more dust from the stone. The potter occasionally rubbed the steatite stone on the flat side of a granite pestle and the resulting dust she applied to the pot with her fingers. In this final polishing process the strokes were horizontal or oblique. They

⁵ University of California museum specimen 1-27004. There are two similar stones in the Barrett collection, mus. nos. 1-10876, 1-10943.

are plainly visible on the pots in plates 101*f* and 102, as are also the white streaks of the steatite dust. These streaks withstand firing but ultimately disappear with use. As a final touch the potter marked the inside of the pot with several vertical stripes of steatite scratches. This, it was said, would keep the pot from cracking during firing. The pot was then left to stand in the sun for the rest of the day, while work commenced on another. The pots had to be absolutely dry before firing or they would crack.

At sun-up the following morning a fire was built in a shallow pit about eighteen inches deep and two feet in diameter. The wood was of any convenient variety but was in long poles which might be shoved

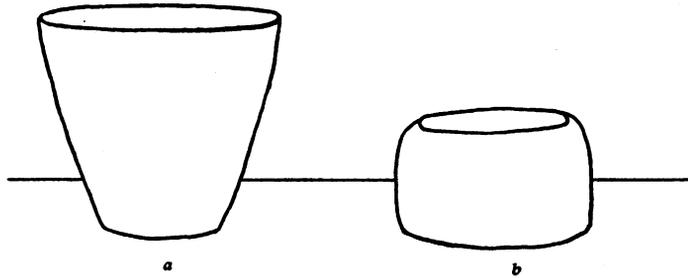


Fig. 2. Western Mono pottery, Sequoia National Park Museum. *a*, found at Camp Patwisha, below Hospital Rock station of Park, 204 mm. height, 230 mm. diam. at rim, 103 diam. at base; *b*, made at Iron Springs, Tulare county, 105 mm. height, 154 mm. diam. inside rim, 178 mm. maximum exterior diam.

into the fire as they burned without greatly changing its temperature. When the fire had burned for about an hour slabs of oak bark were added. In the meantime the pots had been set along the edge of the pit, so that their subjection to heat was gradual (pl. 98*a*). When ready for firing the vessels were moved to the fire with long poles, for they were far too hot to be touched with the hands. They were set in the hot ashes in the center of the pit, and the fire reassembled about them; some coals and ashes were scraped into them from above. A few pieces of oak bark were laid immediately over them (pl. 98*b*).

Vessels for cooking purposes were fired at least twenty-four hours, often up to forty-eight. Pipes, and small bowls which were used as dippers, were fired a shorter time, the former about six hours. Toward the end of the firing the ware was tested by being tapped sharply with a hard stick. This would produce a clear ringing sound if the pottery were sufficiently baked. The vessels made by the Wobonuch woman were fired eight to ten hours, as she knew they were not to be used for

cooking. Even with this comparatively short firing they give forth a metallic sound when struck with the knuckles. The potter said they would "ring like a bell" if fired the customary length of time.

When the firing was finished the pots were removed from the embers with a pair of long sticks. The pots are often red hot, and are again set along the edge of the fire pit so that the cooling will be gradual.

Among the Wobonuch and Waksachi Western Mono and Entimbich Yokuts this completed the work and the pots were ready for use. The Patwisha (Balwisha) Western Mono, Wükchumni, and perhaps other neighboring Yokuts groups finished the vessels with a coating of thin acorn mush. Sufficiently fired pots were removed from the fire while at high heat and were immediately painted inside and out with acorn mush applied with a soaproot brush. The mush "sizzled and baked right into the pot." Three or four coatings were given. This process was said to prevent the clay from soaking up liquids, "sweating," and breaking. A similar coating is applied to cooking baskets to make them watertight. The Wükchumni Yokuts called this "doctoring" the pot.⁶

The Patwisha and Wükchumni procedure in pottery-making differed in two other points from that of the Kings River tribes. The first was in the preparation of the clay. It was not used directly after being taken from the ground, but was dried in the sun or near a fire. When thoroughly dried it was put in a large mortar hole (one no longer used for food-grinding) and pulverized with a pestle. The resulting dust was sifted through a twined basket, such as an old seed-beater, and returned to the mortar hole.⁷ A small amount of water was poured over the ground clay, and all stirred about to make a heavy paste. If the clay seemed too smooth a little sand was added at this time. The mixture was lifted out onto the surface rock, and pounding and kneading proceeded as above.

The second point of difference was in marking the pot to insure safe firing. Vertical lines were drawn on the outside of the pot, not with the soapstone polisher as among the Wobonuch, but with the

⁶ *Toi'in na ki'wic nim hi'am si'ci*, doctoring I pot my now done.

⁷ Kroeber, *Handbook*, pl. 50*d*, illustrates a beater of this type. Opened-twined baskets, made for sifting pulverized materials such as manzanita berry flour, etc., were used in this case. When the Wobonuch made pottery from dried clay, which was only in summer or fall, the finely ground clay was extricated by winnowing, according to Dr. T. T. Waterman, whose photograph of the process is shown in pl. 97*b*.

charred end of a stick. Again this was done "to see how the pot was going to burn and to keep it from cracking." No informant could give any interpretation of this rationalization.

Shaping Method

Small bowls were sometimes shaped from a lump of clay. A large lump was taken up and rolled about in the hands to form a solid ball. The thumbs then were sunk into the center of the ball, and the clay pressed out against the fingers. The cup thus formed was turned about in the hands and pressed into a crudely symmetrical shape. It was scraped and finished as a coiled vessel was. The Wobonuch potter called this a "lazy woman's way." She made one bowl (pl. 102*e*) to demonstrate the method, and coiled the other small one. Large pots were invariably made by the coiled process.

METHOD OF MAKING CLAY PIPES

To make a pipe the potter took a small lump of clay and worked it about in her hands until it was of an even consistency throughout. She then rolled the clay into a short, thick cylinder and finally worked this into a cone. The very small tip of the cone she broke off. Then holding the cone firmly in her left hand, so that the broad end was encircled by the index finger and thumb, she pressed the index finger of her right hand into the center of the cone to form the tube. The large opening thus made extended about three-fourths of the length of the cone. The edge of the open end was smoothed off. Still holding the pipe in her left hand she thrust a very small straight twig through the remaining solid portion of the cone which formed the mouthpiece. The mouthpiece was pressed around the twig and smoothed down before the twig was pulled out. The pipe was set aside to dry for a while. When so dry that there was no danger of injuring it by handling, it was rubbed down a bit with the soapstone polisher. The two pipes made by the Wobonuch potter were heated by the fire (foreground, pl. 98*b*) and then fired for about six hours.

SHAPES AND USES OF WARE

Yokuts and Western Mono pottery is of so simple a type that it cannot be regarded as having a style in an artistic sense (pls. 99, 100, 101, 102). The potters seem to have followed a traditional pattern of a ware that was serviceable without deviating into attempts at

decoration. No slip or painted ornamentation was ever applied. An occasional piece was decorated with a row of thumb-nail scratches around the exterior of the rim; a small bowl in the Barrett collection is decorated with a crude geometric pattern pricked into the clay.⁸

The color of the finished ware is dull red, or murky gray to red if unevenly fired. The color of the ware after it has been in use is dark gray to black: the rough surface absorbs dirt from handling, and pots used as cooking vessels become blackened from smoke. The unfired clay used by the Wobonuch was dark gray but became dull red after the firing process. In notes with his collection Barrett mentions a yellow clay as the most satisfactory variety for pottery. Red clay which occurs in the region was not used for pottery.

There seems to have been a standardization of shapes, or at least a tendency toward it. The majority of specimens have flat bottoms and curveless sides which flare slightly. The rims are vertical or even slightly incurved: this may be due to the final pinching and smoothing of the rim clay rather than to the deliberate intention of the potter. Among the thirty-four specimens, on which this description is based, the following deviations from the standard shapes occur: four round-bottomed bowls with curved sides; one flat-bottomed, low, oval bowl; and one flat-bottomed bell-shaped bowl.

The heights of the specimens vary from 23 to 204 mm., and roughly fall into four groups: (*a*) 5 specimens from 23 to 49 mm. high; (*b*) 17, from 64 to 105 mm.; (*c*) 7, from 135 to 156 mm.; and (*d*) 5, from 171 to 204 mm. This agrees rather well with informants' descriptions of three sizes of ware which they describe as (*a*) small bowls used for dippers, (*b*) a medium size used for holding food and soaking basket materials, and (*c*) a large size for cooking which varied with the size of a family (this probably refers to such specimens as those in the last two groups, *c* and *d*). Although the Yokuts and Western Mono distinguished these sizes they were not defined in native nomenclature by specific names. All pottery vessels were called *ki'wic* (Yokuts) or *wina'bi* (Western Mono)—literally, clay.⁹ Large and small vessels were simply called big or little *ki'wic* (*wina'bi*).

⁸ Respectively, specimens 1-10890, 1-10892, Museum of Anthropology, University of California.

⁹ This is somewhat analogous to our own use of tin, silver, linen, for objects made of these materials, though we have specific designations as well.

DISTRIBUTION OF POTTERY-MAKING IN SAN JOAQUIN VALLEY

The names of those tribes which are definitely known to make or not to make pottery are underscored in figure 3. There are certain doubtful cases. First the Gashowu: the Kechayi informant for the Gashowu and Kechayi groups, between whom close social and economic intercourse prevailed, stated that she had never seen any people make pottery; that an old man at Auberry, Fresno county (Gashowu territory), had a piece; that he had told her what it was and that people used it (pottery) long ago. The Kechayi were not pottery-makers. Had the Gashowu been pottery-makers the Kechayi would at least have known that they practiced the art even though they did not do so themselves. It is possible that the Gashowu man had obtained his piece by trade. The other uncertain cases are Telamni, Wolasi, and Choinok. Tachi and Chunut informants agree that no people about Tulare lake had made or even seen pottery in old times. The Chunut informant was familiar with the customs of the three immediate neighboring tribes to the east; she insisted that they had no pottery. The only reason to doubt her statement is the proximity of these tribes to the pottery-makers of the foothills with whom some trade was carried on.

The Chunut considered red clay a "good medicine." A ball of it was kept in the house; and a bit was scraped from it with the fingernail and rubbed on the chest to cure a cough. Sometimes people "shaped out little dishes with their fingers"¹⁰ but these weren't good for anything." The informant's reaction to a demonstration of the hand movements made in rolling clay (as in the foothills) was to describe the method of fire-making.

Though potsherds occur sporadically in the floor of the valley, they are regarded by Gifford and Schenck as late intrusions.¹¹ These sherds are related stylistically to southern Californian ware rather than to that of the Yokuts.

Of the pottery-making of other tribes in the San Joaquin valley we know nothing at the present time. Mr. Theodore McCown reports that the Kawaiisu did not make pottery in ancient times, and have

¹⁰ As the Pomo are reported to have done, Kroeber, *Handbook*, 537.

¹¹ *Archaeology of the Southern San Joaquin Valley*, this series, 23:55-56, 1926.

only recently heard of the art through contact with northern foothill Yokuts.¹² East of the Sierras the Eastern Mono practiced pottery-making of the same type as that practiced by their western relatives, according to Mr. J. H. Steward.¹³ The continuity of the distribution of pottery-making from the foothill Yokuts through the Western Mono to Eastern Mono tribes leaves little doubt that the California art was derived from or at least genetically related to the great Southwestern pottery area.

¹² Field notes.

¹³ Field notes.

EXPLANATION OF PLATES

Museum numbers, provenience, and dimensions of specimens
illustrated.

Plate 95.—*a*, Wobonuch potter testing clay after preparatory pounding; *b*, same rolling first rope to set in base of pot.

Plate 96.—*a*, method of building pot from clay rope; *b*, potter smoothing coils with chip of wood.

Plate 97.—*a*, finishing surface with steatite polishing stone; *b*, Wobonuch method of separating fine and coarse particles of pulverized dry clay.

Plate 98.—*a*, dried pots heating before firing; *b*, two pots undergoing firing, two pipes in foreground being heated.

Plate 99.—Yokuts and Western Mono pottery, Field Museum of Natural History. Small bowls: *a*, 71196, Mono, Millwood, Fresno county, 76 mm. height, 114 mm. diam.; *b*, 71197, Mono, Millwood, Fresno county, 76 mm. height, 111 mm. diam.; medium-sized receptacles: *c*, 71242, Mono, Millwood, Fresno county, 89 mm. height, 152 mm. diam. at opening; *d*, 70319, Mono, José Basin, Fresno county, 96 mm. height, 157 mm. diam. at opening.

Plate 100.—Yokuts and Western Mono pottery, Field Museum of Natural History. Cook pot: *a*, 70616, Yokuts, Iron Bridge, Tulare county, 203 mm. height, 203–213 mm. diam. from ear to ear. Atypically shaped receptacle: *b*, 71195, Mono, Millwood, Fresno county, 152 mm. height, 162 mm. diam.

Plate 101.—Yokuts and Western Mono pottery, Field Museum of Natural History. Medium-sized receptacles: *a*, 70843, Yokuts, Dunlap, Fresno county, 82 mm. height, 133–139 mm. diam.; *b*, 70856, Yokuts, Little Sandy, Fresno county, 89 mm. height, 236 mm. diam. at opening. Cooking receptacles: *c*, 70619, Yokuts, Iron Bridge, Tulare county, 190 mm. height, 139–153 mm. diam.; *d*, 70618, Yokuts, Iron Bridge, Tulare county, 156 mm. height, 223 mm. diam.; *e*, 71217, Mono, Cold Springs, Fresno county, 171 mm. height, 152 mm. diam.; *f* (Univ. Calif. collection, Wobonuch Western Mono specimen), 1-27009, 137 mm. height, 230–249 mm. diam. at rim, 146 mm. diam. at base.

Plate 102.—Western Mono pottery, University of California. Medium-sized receptacles, small bowls, and pipes: *a*, 1-27011, 92 mm. height, 181 mm. diam. at rim, 75 mm. diam. at base; *b*, 1-27010, 95 mm. height, 184 mm. diam. at rim, 78 mm. diam. at base; *c*, 1-27013, 70 mm. height, 151 mm. diam. at rim, 83 mm. diam. at base; *d*, pipe now in Göteborg Museum, Sweden; *e*, 1-27016, 44 mm. height, 86 mm. diam. at rim, 35–39 mm. diam. at base; *f*, 1-27014, 65 mm. height, 139 mm. diam. at rim, 85 mm. diam. at base; *g*, 1-27015, 49 mm. height, 84 mm. diam., 44 mm. diam. at base; *h*, 1-27018, 86 mm. length, 24 mm. diam. at rim of bowl.



a



b

WOBONUCH WESTERN MONO POTTER AT WORK

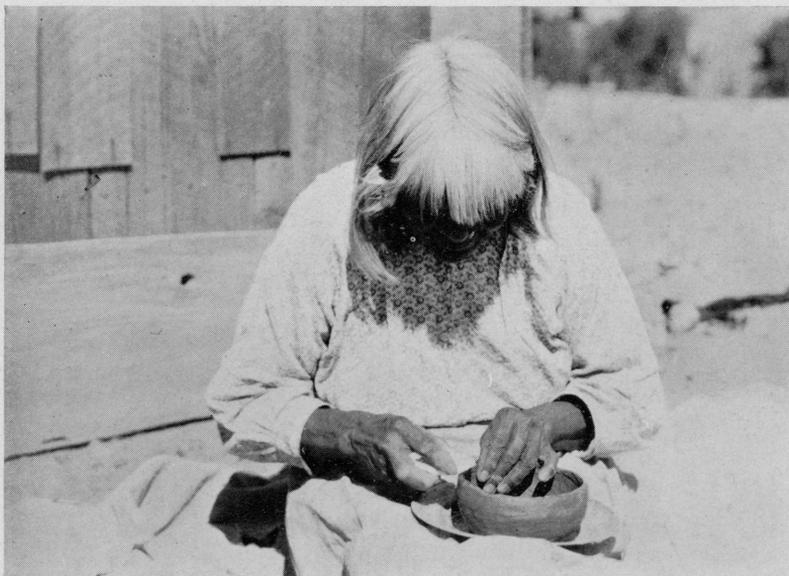


a



b

WOBONUCH WESTERN MONO POTTER AT WORK

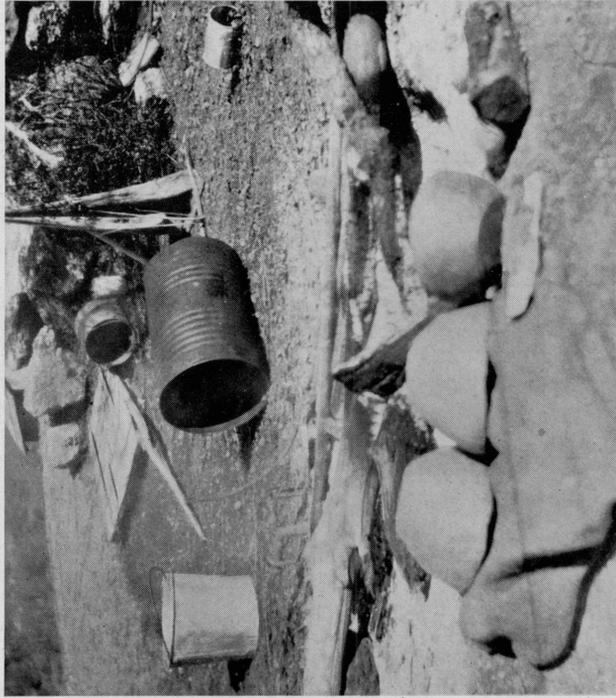


a



b

WOBONUCH WESTERN MONO POTTER AT WORK



a



b

HEATING AND FIRING POTTERY



a



b

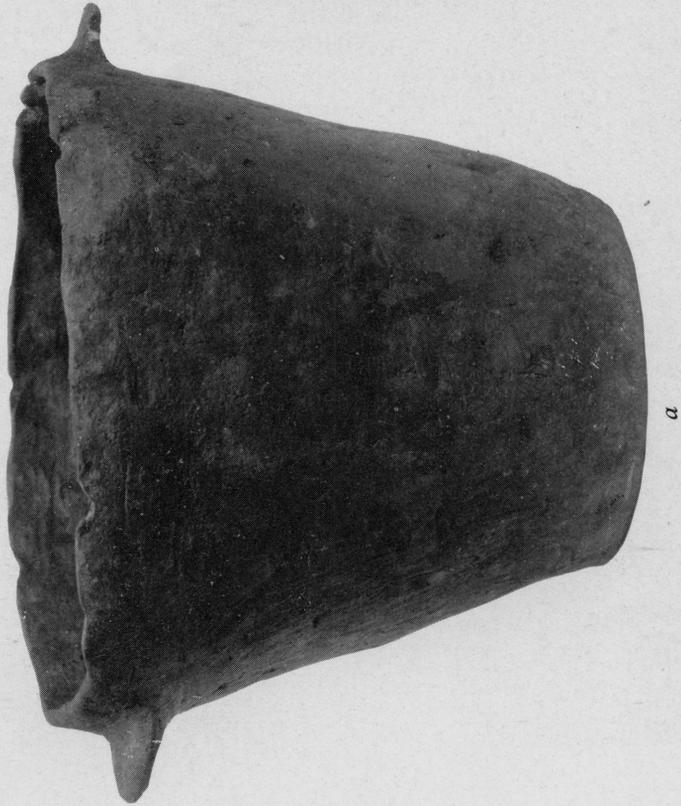


c

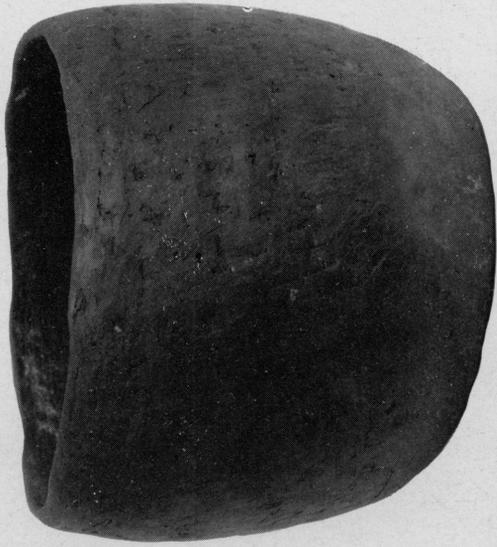


d

YOKUTS AND WESTERN MONO POTTERY
(Field Museum of Natural History)



a



b

YOKUTS AND WESTERN MONO POTTERY
(Field Museum of Natural History)



a



b



c



d

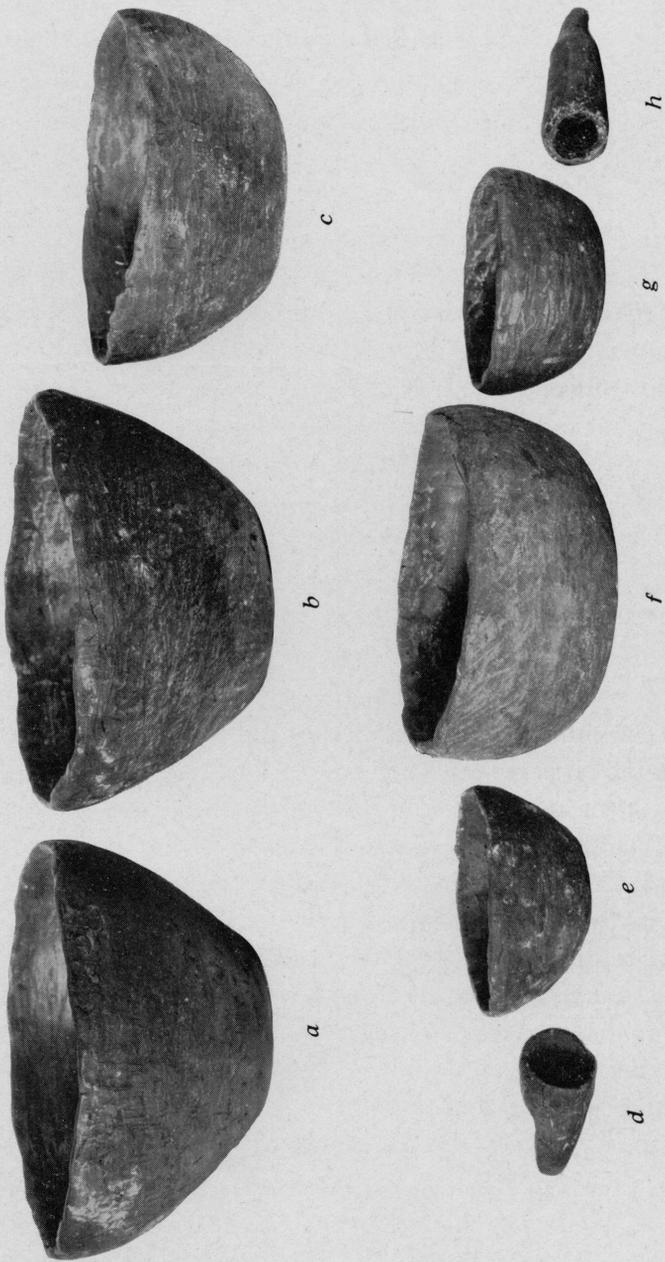


e



f

YOKUTS AND WESTERN MONO POTTERY
(Field Museum of Natural History)



WESTERN MONO POTTERY
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