

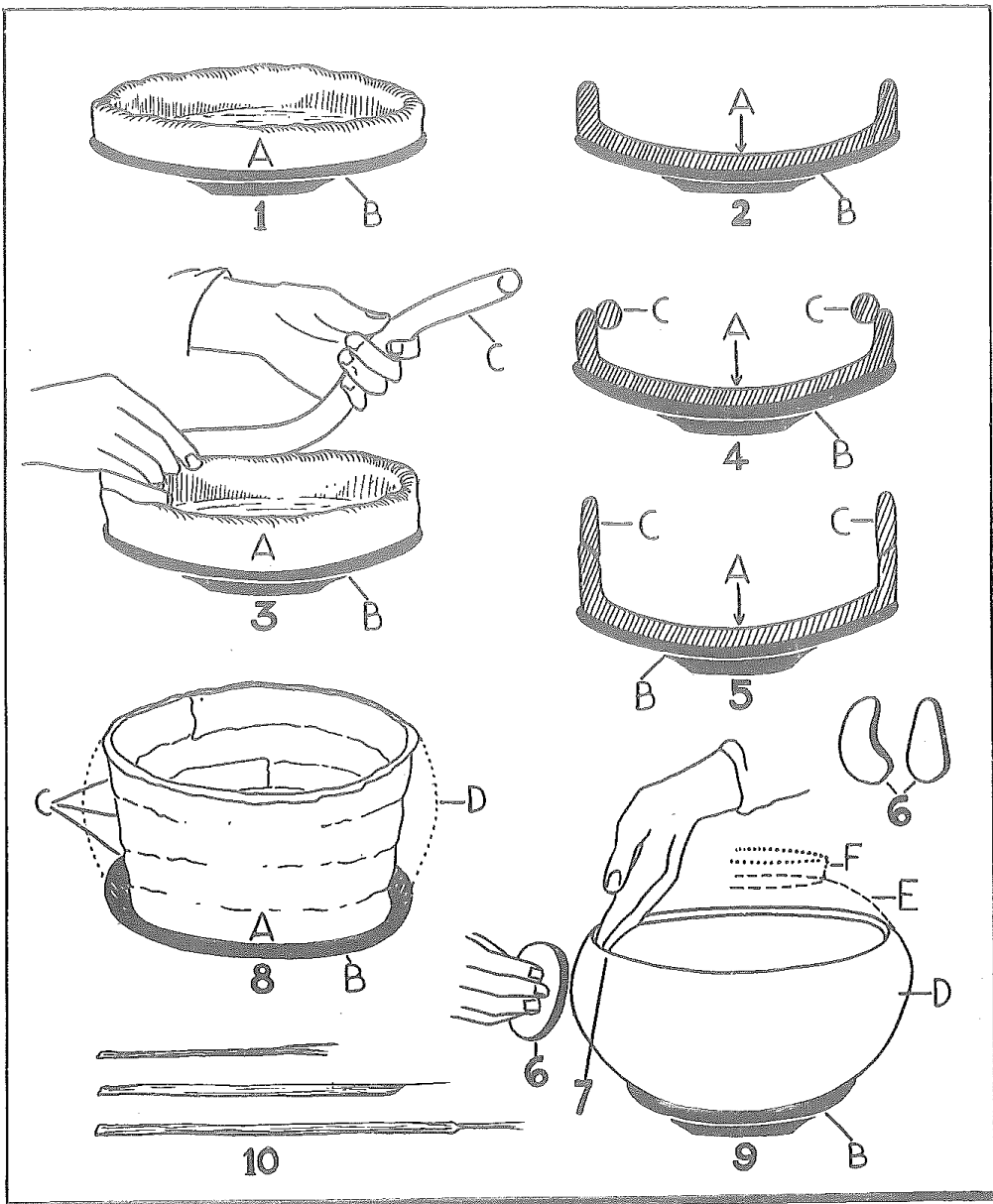
DENVER ART MUSEUM

1300 LOGAN STREET, DENVER, COLORADO

DEPARTMENT OF INDIAN ART

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PUEBLO INDIAN POTTERY MAKING

1. PREHISTORIC POTTERY. Pottery has been made in the Southwest since about 300 A. D. (The process began during the Basketmaker Period and continued through the Pueblo Period.) In general pottery reached its height in the 14th century. It was formerly believed that pottery making had a much longer history, but in the last few years datings by the Douglass tree ring calendar have accurately determined the history of the art from its earliest beginnings.

2. MODERN POTTERY MAKERS. There has been no break in pottery making since it began. It exists now at all the pueblos but Sandia. Decorated wares are made at Acoma, Cochiti, Jemez, Laguna, San Ildefonso, San Juan, Santa Ana, Santo Domingo, Tesuque, Tsia, Zuñi and by the Hopi. Undecorated utility or cooking wares are made at many villages. For details of the wares made today see Leaflet 53-54. There are many local variations in pottery making technic which cannot be mentioned in this leaflet.

3. CLAY PREPARATION. Hard, dry clay is gathered in lumps from beds near the pueblos. It is carried home, pulverized by pounding and freed from impurities by winnowing and picking over. Tempering material, which prevents cracking of the molded clay as it dries, is prepared in the same way. Temper is made from sherds or various types of hard mineral substances such as sand. The powdered clay and temper are mixed with water and worked into a unified mass by prolonged kneading.

4. MOLDING. Pottery is made by women seated or kneeling on the ground or floor. A round pat of clay (1-A) is pressed into a base (B) resting on a platform on which it may be turned. The base is a china or metal saucer, a rounded sherd or an old basket bottom. The edges of the pat are turned up. A roll of clay (3-C) is made by rubbing a lump between the palms. It is applied to the inside of the upturned rim of the pat and pressed firmly in place (3 and 4), being flattened by the process (5). The remainder of the vessel is built up by thus applying and flattening clay rolls (8-C). The walls of small vessels are made with rings of clay the length of which equals the circumference of the piece. For large vessels a continuous rising coil is used.

Walls of all but small pieces are built in sections several inches high (8), each one of which is smoothed and shaped to the proper curve (8-D and 9-D), before other sections (9-E and F) are added. Very large pieces are molded with intervals between the making of each section so as to allow them to dry enough to support the weight of the next. In the intervals the top edges of the sections must be kept damp. Very small pieces and solid figurines are shaped without coiling, being modeled with the fingers. A number of medium sized vessels are usually molded at one sitting. When the molding is done a final careful smoothing is given. Time for molding runs from 10 minutes for small bowls to 6 hours for large jars.

To shape a vessel the potter constantly turns it on its base, smoothing and bending the walls with wet fingers and curve edged tools of gourd rind (6). If the tool is smoothing the outside, the fingers (7) are always inside to support the flexible wall against the pressure of the tool (6), and vice versa. The gourd tools (6) are cut in several curves to fit the shapes of different vessel types. The potter's wheel is never used.

5. DRYING. The damp vessels are dried outdoors. As rapid drying is not advisable the pots are kept in the shade. In rainy weather they are dried

indoors. If properly tempered, vessels dry without cracking. Small cracks can be filled, but large ones are beyond repair.

6. SCRAPING. The dried vessels are carefully scraped with a sharp-edged tool to remove surface irregularities and to reduce wall thickness if necessary. Small thin spots or depressions are also filled out at this time. The surface may be moistened before scraping. Metal tools have largely replaced the stone or sherd scrapers once used.

7. APPLICATION OF SLIP. Slip is a thin mixture of clay and water, the application of which creates a smooth surface on pottery vessels. It is applied with a bit of cloth or fur. Several coats are customarily used, each one drying before the next is put on. Wide-mouthed bowls are slipped both inside and outside; small mouthed vessels are treated only on the exterior. White and several shades of red, orange and yellow are the colors used.

8. POLISHING is done as the slip is applied. Very smooth pebbles, usually water worn, are rubbed with a short rotating motion over the slipped surface as it dries, the friction producing the polish. Degree of polish depends on the length of the rubbing. Sometimes a thin coat of lard is laid on to aid in producing the polish. No modern pottery is made shiny by the use of glaze.

9. PAINTING MATERIALS. Brushes (10) are made of yucca leaf. From the leaves are cut pencil shaped sections 4 to 6 inches long and not over a quarter inch in diameter. The pulp is chewed out of an inch long section, exposing the fibres of the leaf. The fibre section is trimmed to several sizes for coarse or fine work. Turkey leg tendons are sometimes used for brushes. White paint is more or less pure kaolin. The yellows, oranges, reds and browns are iron tinged ochres. Black varies with locality. It is either vegetal, made by boiling the bee-plant or the tansy mustard; or mineral from iron or manganese. All of these colors are ground to powder on small stone mortars and mixed with water to a creamy consistency.

10. PAINTING TECHNIC. The painter first applies the main framework of the design which she carries in her mind. Its subdivisions may have been measured with the fingers or spread of the hand. No rulers or dividers are used. After the main lines are in place smaller lines are applied and lastly areas of solid color. The brush is usually held in the right hand. The fingers may or may not touch the surface according to the need of the moment. The elbow may be pressed to the body. The strokes are made free hand and are usually not longer than 6 inches. Individual needs determine whether the lines are retouched after the first stroke.

11. FIRING. In a place well sheltered from wind a fire is built and burned to coals. Stones or tin cans are placed among the coals to support a grate. On it are piled, upside down, as many vessels as possible, from several dozen small pieces to 1 or 2 large jars. Care is taken that sides of vessels do not touch. The pile of pots is enclosed with sheets of metal or with large sherds. These prevent flame from touching the pots and making dark spots. Cakes of dried sheep manure are set around the pile and laid over it until it is completely covered, only chinks being left to allow circulation of air and heat. Coal and cedar wood are sometimes used in conjunction with the manure cakes.

The fuel is lighted by kindling pushed under the grate. The firing continues until the fuel is consumed or until the potter, after exploratory poking and peering into the mass, decides that the work is done. Firing lasts from one half to two hours under ordinary circumstances. Temperatures of from 1200 to 1500 degrees Fahrenheit are reached.

To produce polished black pottery, the firing proceeds as described until the vessels are at red heat. The fire is then smothered with powdered manure, which produces a dense smoke within the mass. This smoke deposits carbon on the polished red pieces and turns them black without dimming the polish.

12. AFTER FIRING. When the potter decides that the pots have been fired sufficiently she removes them from the ashes with sticks and sets them nearby to cool. When capable of being handled the ashes, etc. are wiped off with a dry cloth. Sometimes the vessels are wiped with a slightly greasy cloth.

13. POTTERY FORMS AND USES. The most common types are listed below. Unusual local variations are beyond the scope of this leaflet.

Large jars for storing food and water, 18 to 30 inches high, 15 to 24 inches wide. Jars for carrying water, 6 to 12 inches high and wide. Wide mouthed bowls for preparing and serving food, 1 to 8 inches deep, 4 to 18 inches wide. Semi-globular canteens, 5 to 12 inches wide. Bowls, dippers and angular boxes, usually rather small; for ceremonial use. Eccentric, human, animal and bird forms, usually small, for ceremonial use and commerce. Flat tiles in several shapes. For further details see leaflets 53-54 and 69-70.

14. DECORATION. Painted designs are geometric figures, conventionalizations of life forms, more or less realistic life forms and combinations of these types. Incised or scratched designs occur, but are not common. Rims are molded into terraces and other shapes, and modeled life forms are applied to walls, handles and lids.

Compiled from the following sources by F. H. Douglas.

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8. Maria: The Potter of San Ildefonso—A. Marriott. 1948.

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Pictures. Processes, 1, 5; drawings of shapes, ancient 2, modern 3; designs, 1, 2, 3, 5.