

BASIC CERAMIC TERMS

Ceramics: Creation of an object out of clay.

Clay: *A natural material extracted from the earth's crust.* The composition of clay particles renders a plastic quality which means it deforms under pressure and retains a new shape without cracking. Made of alumina + silica + water.

THREE TYPES OF CLAY:

Earthenware: Fires at low temperature, is porous and chips easily. Glazed pottery is fired to a temperature of 1,830 - 2,010 degrees Fahrenheit. Available in red or also white.

Stoneware: High Fire, holds water without glazing.

Porcelain: Very high firing clay, white and translucent when fired. Difficult to work with.

METHODS OF WORKING:

Coil: Creating a form with long, rope shaped, pieces of clay.

Pinch: Manipulate clay with your fingers in your palm to a hollow shape.

Slab: Creating a form utilizing flat pieces of clay.

Slip Casting: Using of plaster molds to creating a form. Very commercial.

Throwing: Creating ceramic shapes on the potter's wheel.

STAGES OF CLAY:

Slip: Clay mixed with water with a mayonnaise consistency. Used in casting and decoration. 50% Water

Plasticity: The quality of clay which allows it to be manipulated into different shapes without cracking or breaking. 25% Water

Leather Hard: Stage of the clay between plastic and bone dry. Clay is still damp enough to join it to other pieces using slip. For example, this is the stage handles are applied to mugs. 10% Water

Bone Dry: Completely air dried. 2% Water

Greenware: Unfired pottery. Ready to be bisque fired.

Bisque: Pottery which has been fired once, without glaze, and cannot be recycled. 0% Water

FIRING STAGES:

Fire: To heat a clay object in a kiln to a specific temperature.

Firing Range: The range of temperature at which a clay becomes mature or a glaze melts.

Bisque Fire: First firing, without glaze. Slips can be used in a bisque firing.

Glaze Firing: The final firing, with glaze.

TOOLS:

Bat: A flat disc made out of plaster, wood, or plastic which is affixed to the wheel head with clay or pins. Bats are used to throw pieces on that would be difficult to lift off the wheel head.

Banding Wheel: A revolving wheelhead which sits on a pedestal base. It is turned by hand and used for finishing or decorating pottery.

Calipers: A tool used to measure the diameter of round forms, for example calipers are used to get lids to fit just right.

Cone: Pyrometric - A pyramid composed of clay and glaze, made to melt and bend at specific temperatures. It is used in a kiln to determine the end of a firing or in some electric kilns it shuts off a kiln setter.

Cut-Off Wires: Probably the most common ones have two hardwood handles at either end.

Fettling Knives: These tools are useful in cutting large lumps of clay, cleaning edges of cast pieces, and in removing thrown work from the potter's wheel.

Kiln: A furnace of refractory clay bricks for firing pottery and for fusing glass.

Mold: A plaster shape designed to pour slip cast into and let dry so the shape comes out as an exact replica of the mold.

Needle Tool: These long heavy needles set into wooden, metal, or plastic handles are one of the most versatile tools in pottery.

Potters Wheel: A device with either a manual (foot powered) or an electric rotating wheel head used to sit at and make pottery forms.

Rib: A rubber, metal or wooden tool used to facilitate wheel throwing of pottery forms.

Scrappers: look a lot like ribs, but are lighter and used to smooth wet and soft leather-hard greenware and are steel, rubber, or wood.

Loop, Wire, and Ribbon Tools: Used for trimming greenware and for use in handbuilding.

Wooden Modeling Tools: Come in a variety of shapes, useful in all sorts of handbuilding.

TERMS:

Centering: Technique to move the clay in to a symmetrical rotating axis in the middle of a wheel head so you can throw it.

Coil: A piece of clay rolled like a rope, used in making pottery.

Compress: Pushing the clay down and together, forcing the particles of clay closer.

Composite Pots: Pots that were thrown or hand built in separate pieces and then assembled.

Dry-Foot: To keep the foot or bottom of a pot free from glaze by waxing or removing the glaze.

Extrusion: Clay forced through a die to form uniform shaped

Foot: Base of a ceramic form.

Glaze: A thin coating of glass. An impervious silicate coating, which is developed in clay ware by the fusion under heat of inorganic materials.

Grog: Fired clay ground to various mesh sizes.

Peephole: A small observation hole in the wall or door of a kiln.

Slab: Pressed or rolled flat sections of clay used in hand building.

Slurry: A thick slip.

Stacking: Load a kiln to hold the maximum number of pieces.

Vitrification: The firing of pottery to the point of glossification.

Wedging: A method of kneading clay to make it homogenous (evenly mixed), remove air bubbles, and to change the water content by cutting and rolling.