

Ceramic Terminology – The Culture Concept Circle¹

Agate ware

Pottery made from clays of two differing colours, not completely mixed. The result is a streaked effect resembling agate.

Alumina

Aluminium oxide. It is used to bed bone china in the biscuit firing. A fine white powder with a high fusing temperature.

Antimony oxide

Produces a yellow colour in glazes.

Ash glaze

A glaze made with ground ash, usually wood ash and sometimes mixed with other materials.

Bagwall

The inner wall of the kiln - it protects the pots being fired from the flames.

Ball clay

A sedimentary clay that will withstand high firing temperatures. Plastic in quality.

Ball mill

A grinder for reducing hard materials to powder.

Baluster

The name given to a shape of a vase or other vessel that is slender above and bulging below.

Bamboo knife

A piece of bamboo sharpened to a chisel edge. Used in throwing.

Banding Wheel

A turntable used for applying lateral decoration to a pot.

Bat

A flat disk that sits on the wheel. Used for heavy pieces that would be difficult to separate from the wheel.

¹ Ceramic terms – The Culture Concept Circle 2014 – www.thecultureconcept.com/circle/

Bisque (or biscuit)

Pots that have been given a preliminary firing to render them hard enough for further work such as decoration and glazing. The higher the temperature of the bisque firing, the harder will be pot, resulting in reduced reaction between glaze and body in the final firing.

Blunge

Mix water with clay.

Blunger

Machine for mixing water with clay. The clay is fed into a hopper and goes through a system of angled rotating blades to mix it with the water.

Body

The substance from which a pot is made. A mixture of one or more clays, grog, feldspars, etc., to give a material suitable for shaping and firing.

Bone ash

Animal bones that have been baked and ground to a powder, used in the production of bone china.

Bone china

A china made white and translucent by the addition of calcined animal bone to the body.

Borax

Sodium borate, a mineral salt found in alkaline deposits. A form of borax purified by calcination is used as a flux in glazes.

Bottle kiln

A large kiln, wide at the bottom and narrow at the top like a bottle.

Burnish

To smooth the surface of a pot by rubbing with a hard object to give a finish with a polished effect.

Calcine

Reduce to calcium carbonate. To purify a substance by subjecting it to high temperatures.

Calcium carbonate

A white insoluble solid. Occurs naturally as chalk, limestone, marble and calcite. It is used as flux in glazes.

Caliper (or Calliper)

A measuring device resembling a compass. Internal calipers measure internal diameters or apertures and external calipers measure outside diameters or overall sizes. External calipers look like a jockey (without his horse) and inside calipers look like a girl in a tight skirt.

Cast

To produce shapes by pouring fluid clay into moulds. The 'negative' moulds are usually of plaster of Paris, and made from a 'positive' so that when they wear out, new ones can be made.

Celadon

A grey-green glaze, usually pale in colour, of Chinese origin.

Cheese-hard

. . . or leather-hard. Clay that has dried to the point where it is stiff enough to retain its shape but wet enough for further work to be done on it.

China

Porcelain. The first porcelain imported into Europe was from China.

China clay

Kaolin. A white clay made from pegmatite found in Cornwall.

China stone

Pegmatite. A feldspar.

Chrome oxide

Used to produce yellow or green colours in glazes.

Chuck

Tube-like form to hold a pot upside-down on the wheel for trimming the foot.

Chun

A pale blue glaze used on stoneware.

Clay

A mixture of water and powder from decomposed feldspar. Clay is the potter's basic material. When moist it is soft and plastic; when fired becomes permanently hard.

Climbing kiln

A multi-chamber kiln with each successive chamber at a higher level than the last. This type of kiln is of oriental origin and was popularized in Britain by Bernard Leach and his students.

Cobalt oxide

Used to produce a blue colour in glazes.

Coiling

Rolled clay in flat form or with a rounded section that welds to itself when fired to make a solid form.

Cone

Cones are test pieces inserted in the kiln to indicate to the potter when a certain temperature has been reached. They are made of various glaze materials of known melting point. Two sets of cones are Seger cones, named after Hermann August Seger, and Orton cones, manufactured by the Orton Ceramic Foundation in the USA.

Copper oxide

Used to produce green colours in glazes. When used in a reducing atmosphere it produces a red colour.

Crackle

Cracks in the glaze formed intentionally as a decorative feature. (See also - Crazeing)

Crawling

Shrinkage or retraction of the glaze during firing, causing exposed areas of body.

Crazeing

A fine network of cracks in the glaze usually caused by uneven contraction and expansion of the body and the glaze during changes of temperature. In some pottery this is a design feature rather than a fault (See - Crackle), but in earthenware pots the cracks can allow moisture to penetrate to the porous body leading to further damage.

Damper

A crude device - usually a refractory clay brick - used to block the flue of a kiln.

Delft

Opaque lead glazed earthenware with a pattern or design painted in metal oxides on the glaze before firing.

Dunting

Cracking or breaking of pots when cold draughts are allowed to enter the kiln. Can also be caused by the free silica in the body being too fine.

Earthenware

Pots that are porous when unglazed. Usually fired at low temperatures. Earthenware is softer and more easily damaged than stoneware.

Enamel

Low-fired coloured glazes.

Endless loop

See Loop, Endless.

Engobe Slip - wet fluid clay used for decoration or for covering a base coloured body. This term is most often used to describe coloured slips.

Faience

Tin glazed European earthenware, usually from France. Quimper and Desvres are good s of faience.

Feathering

Effect obtained by trailing a feather through wet slip decoration.

Feldspar

(Also called felspar). A crystalline substance found in granite.

Fettle

The removal of unwanted blemishes, seams and flash from nearly dry pots prior to glazing and firing.

Fire

To heat a pots in a kiln to a specific temperature for a specific time.

Firing Range

The temperatures between which a clay or glaze matures or fuses.

Flambé

A flame-like effect produced by a reduced copper oxide glaze.

Flatware

Plates, saucers, trays, etc.

Flint

Calcined and powdered silica. Used in earthenware bodies.

Fluting

Grooves cut into the clay in parallel lines running in any direction.

Flux

A substance mixed with a body or glaze to promote fusion. It effectively lowers the melting point.

Foot

The base of a pot.

Frit

A vitreous composition used in glazes and enamels.

Fusibility

The ability of a material to fuse or melt.

Galena

An ore of lead sulphide used as a glaze.

Glaze

A vitreous substance used to decorate pottery and render it impermeable to moisture.

Glaze firing

The last firing of a pot when the glaze is applied.

Greenhouse

Place where pots are kept to harden before biscuit firing.

Greenware

Pottery that has not been fired.

Grog

Gritty material added to clay to modify its behaviour in firing. It is usually ground clay that has already been fired, and can be coarse or fine depending on the type of work for which it is being used.

Gypsum

Plaster of Paris.

Hakeme

Oriental technique of applying white slip with a brush made from straws. The top ends of the straws are tied in bunch like a small besom allowing the slip to be applied to the pot thickly.

Handbuilding

Constructing pots from pre-made parts. The components might be moulded, coiled or fashioned by hand.

Hollow ware

Cups, jugs, bowls, etc.

Impressed (design)

Stamped into the leather-hard clay with a tool or die.

Impressed (mark)

Stamped into the leather-hard clay with a tool or die.

Incised (design)

Pattern cut into the clay with a sharp tool.

Incised (mark)

Maker's name, monogram or mark cut into the clay with a pointed tool.

Jigger

Mould or profile used when uniform shapes have to be made repetitively on the wheel. See also - Jolley

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Kaolin

China clay. A white clay made from pegmatite found in Cornwall.

Kiln

The oven in which pots are fired. Kilns can be fired by wood, coal, oil, gas or electricity.

Kiln Furniture

The various items made of refractory materials that are used in the kiln to support or protect the pots. Shelves, posts, stilts, saggars, etc.

Kiln Wash

Kaolin solution applied to kiln furniture to facilitate the easy removal of glaze drips.

Lead-glaze

A clear glaze containing a lead component. Nowadays lead must be used in its non-poisonous bisilicate form.

Leather-hard

. . . or cheese-hard. Clay that has dried to the point where it is stiff enough to retain its shape but wet enough for further work to be done on it.

Limestone

Chalk. Used in lime glazes.

Loop, Endless

See Endless loop.

Lustre

Metallic oxide film applied to pots after glazing and firing to produce pearly finish after a further firing in a reducing atmosphere.

Lute

To join two pottery surfaces together with slip.

Majolica

The technique of applying low fired tin-glazes with different oxides to produce multi-coloured effect.

Manganese oxide

Used to produce a purple or brown colour in glazes.

Maturing temperature

The temperature at which a body reaches its optimum strength or a glaze is fully fused.

Mould

A concave shape made from plaster of Paris for slip casting. Also the die used for press-moulding.

Nickel oxide

Produces a brown, green or violet colours in glazes.

On-glaze decoration

Decoration applied after the pot has been glazed.

Overglaze decoration

A decoration applied over an already glazed finish.

Oxidation

Firing with a good supply of oxygen so that combustion is complete.

Peephole

Small hole in the kiln for the potter to see what is going on inside.

Pinching

Indenting a pot with the fingers and thumbs before it is hard.

Plaster of Paris

Gypsum. Calcium sulphate. Used for making moulds for slip-casting.

Plastic (adj)

Capable of being formed into a shape or moulded.

Porcelain

Hard, fine, high-fired material made from china clay, feldspar and silica. It is white and translucent. Also known as hard paste.

Pug

To mix body clay. See - Wedging and Pugmill

Pugmill

A machine to take the hard work out of 'wedging'. It is similar in operation to a domestic food mincer, The clay is put in at the top and comes out of the mouth at the bottom in the form of slices or wedges.

Pulling

Shaping a handle.

Pyrometer

A thermometer able to measure the very high temperatures found in kilns.

Quill

Pointed instrument - a porcupine quill, a thin piece of bamboo, a knitting needle, whatever - used in throwing.

Raku

Low-fired Japanese lead-glazed earthenware. Raku is Japanese for 'enjoyment' and this type of pottery is traditionally used in Japan for the tea ceremony.

Reduction

Firing in a reducing atmosphere. This is when there is insufficient air for the flame to burn off its carbon content. The result is a smoky atmosphere that causes metallic content in the glaze and clay to change colour.

Refractory

Capable of withstanding very high temperatures. The kiln furniture has to be able to remain stable at temperatures in excess of the normal firing temperature and must be made of refractory materials.

Rib

A shaped tool to facilitate the forming of pots.

Sagger

A fireclay box used to protect pottery while it is being fired.

Salt-glaze

Thin glaze produced by throwing salt into the kiln. The salt vapourizes and produces a fine 'orange peel' texture to the surface of the pot.

Sand

Coarsely ground pebbles (silica).

Sang-de-boeuf

Ox-blood. Used to describe deep red colours in glazes.

Sedimentary clay

Clay formed by the decomposition of igneous rock.

Sgraffito

The technique of scratching through a coating of slip to reveal the contrasting colour beneath.

Slabbing

A building technique where flat sheets of clay are formed and jointed. Used to good effect by Troika and by Bernard Rooke.

Slip

Fluid clay in a creamy texture used for decorating, joining and as a material for casting.

Slip decoration

The application of slip to a pot. This can take the form of an all-over or partial coating, or a trailed, feathered, combed or brushed design.

Slip trailing

Method of decoration where slip is trailed onto a pot through a fine nozzle.

Slipware

Slip decorated earthenware pottery.

Slurry

Slip with a thick consistency.

Soaking

Keeping a steady temperature in the kiln.

Sprig

Decorative pieces, usually press-moulded, applied to pot when it is leather hard.

Spur marks

The marks left by the stilts used to support pottery in the kiln. Usually seen as three dots in the form of an equilateral triangle.

Stacking

Loading a kiln with pots. Large and small items are carefully positioned to use the space most efficiently.

Stoneware

Pottery fired at high temperature which is inherently non-porous. The clay vitrifies during firing and the surface will not absorb moisture. Stoneware can be left unglazed and still be usable for holding water, but it is more usual to glaze the inside of the vessel, at least. Stoneware is more durable than earthenware, and capable of resolving finer detail

Tenmoku

A Japanese name for a Chinese glaze containing iron oxide. Tenmoku glazes are characterized by their black to reddish brown colour which is lighter in colour where the glaze is thinner and darker where it is thicker.

Terracotta

Red earthenware, usually unglazed.

Thread

Twisted cord sometimes used instead of the thrower's wire for cutting pots off the wheel. It leaves an attractive pattern on the base of the pot.

Throw

To make a pot on a potters' wheel. The wheel revolves and maintains a fairly constant speed as would a flywheel. The clay is thrown onto the centre of the wheel and the potter shapes it by hand to the desired form.

Tin-glaze

White opaque glaze containing tin oxide.

Titanium

A metallic element found naturally in many clays. It is used in glazes to produce a crystalline effect.

Transfer printing

Method of decoration where a pattern or picture is printed onto the gelatin coating of paper and then, when wet, is slid onto the surface of a pot. The gelatin can be sensitized with silver halide allowing the same process to be used photographically.

Tube-lining

A decorating technique where soft clay is piped from a bag via a fine tube onto the body of a pot. This creates an outline for a design that can later be enhanced by further painted decoration.

Tunnel kiln

A kiln made in the form of a tunnel, with the highest temperature in the middle. The pots move slowly through on trucks, and the effect is similar firing in a normal kiln with a heating and a cooling period. Tunnel kilns burn all the time, allowing greater throughput.

Underglaze decoration

A decoration applied to a biscuit or once-fired pot for subsequent covering with a transparent glaze.

Unpacking

Unloading a kiln after firing. The most traumatic time for the potter. "The kiln is the potter's gamble; he doesn't need the pools or the lottery." - David Leach.

Vitrification

To change to a glassy state.

Volatilize

To cause to evaporate. Volatilized oxides can migrate from one part of the kiln to another.

Wall pocket

A vase, usually with a flat back, that has a hole or holes for fixing to a wall.

Wax-resist

Wax applied to a pot to prevent adhesion of slip or glaze and produce a decorative effect.

Wedging

The cutting of clay into wedges in the process of mixing and kneading it to an even consistency. See also - Pugmill

Wheel

A heavy horizontal wheel onto which clay is thrown and shaped. The weight of the wheel gives momentum to preserve continuity of speed. Potters' wheels can be powered by the potter's foot, an assistant, electricity or in the factory environment from mid-19C to mid-20C a belt from a shaft driven by a steam engine.

Wire

Length of wire with a handle at each end for cutting clay. Used in throwing and wedging.

Xenocryst

A unexpected mineral present within a rock or a crystal of another mineral. A 'foreigner'.

Yunomi

A drinking vessel on a raised foot of smaller diameter than the body. Usually of a basically cylindrical shape. Sometimes seen spelt 'unomi'.

Zettlitz kaolin

A pure kaolin found near Carlsbad in Germany used for making high temperature Seger cones.

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