



Auckland Studio Potters Centre Information Pack

CONTENTS

Welcome to the ASP

Where things are around the centre

Cleaning up after class

Student Health and Safety

The Glazing Process

Glazing Really Starts.....

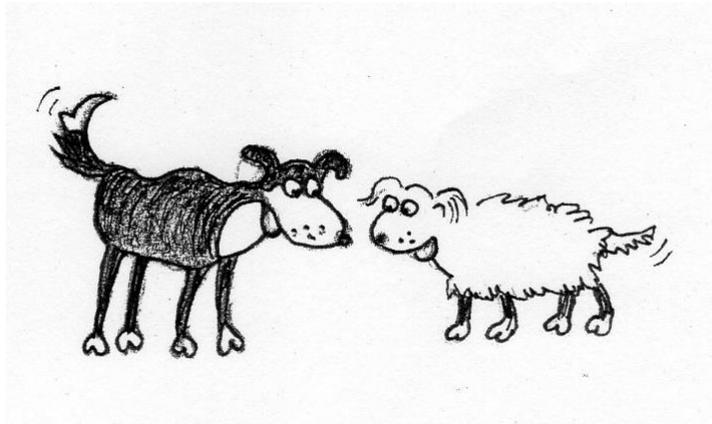
Glazing Tips

Centre Glazes

Appendix

Common Ceramic Terms

Guidelines for Hiring Kilns



Thanks to Julia Watson for the great illustrations!

Welcome to The Auckland Studio Potters

This is an information pack to help you find your way around the Centre, and to familiarize you with important procedures and processes.

This is an exciting place to belong to. There are plenty of activities for members to get involved with, over and above the excellent classes and workshops held here. This is your place, and together we are a community of potters and clayworkers.

Check out our website for Centre history, current events, and news: www.ceramics.co.nz

We're also on Facebook (<http://facebook.com/aspnz>) and Instagram @aucklandstudiopotters

We rely on you to get involved, particularly when there's a call for volunteers. We encourage you to join in the events, and volunteer your time to help with the many various jobs involved in running our Centre and events. All of our member activities and events are run by volunteers, so your Centre Needs You!

Some ways you can get involved in the ASP are:

- Being a docent at exhibitions, helping set up or tidy up afterwards

- Working bees around the Centre

- Attending members social evenings

- Offering content for the newsletter

- Helping with fundraising

- Volunteering to help at the Big Clay Day Out

- Kiln building

- Volunteer on a Saturday roster

- Help unload a kiln

- Bring in old newspapers, plastic bags, ice cream containers and other small lidded containers

- Take photos of ceramics or ceramic events you've seen and email these to the office

- Help at Art Week

- Follow ASP on Facebook or Instagram and spread the word about our events

- Join a special interest group

Where Things Are Around the Centre

The ASP Centre is an extensive facility, so to help you find your way around, here is an outline of where to find things....

Clay and Tools

Clay (various types including recycled) and tools are available for purchase from the Centre – ask in the office. There's no room to store your clay at the studio, so take it, and your tools home with you.

Studio equipment

Studio equipment includes work tables, wedging tables, electric wheels, kick wheels, a slab roller, two extruders, plaster moulds, wooden batts, heat guns, a drying cabinet, a spray booth, and a waxing booth, as well as a random collection of small tools. **Moulds, batts, etc. are for use in the studio only and should not be taken home.**

Storage racks

Limited storage space is available for work in progress (not for clay, and not for finished work!). There are racks for each of the classes, as well as some labelled for "casual users." Check that the rack name matches your class.

Wet cupboards

There is a row of wet cupboards at the back of the studio, which are designed to keep work from drying out past leather hard, usually 1 to 2 weeks is maximum. Dry pots will be removed from the wet cupboards. Please do not use plastic bags in the wet cupboard. They increase the risk of accidental damage, and are unnecessary.

Spray booth

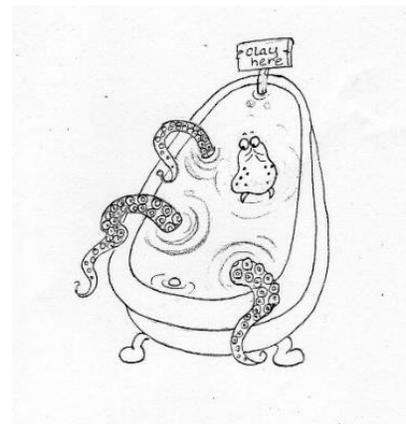
Do not use this until you have been shown how to operate it. After use, sluice the gun out over the sink and blow air through the nozzle. Also clean the booth and turntable.

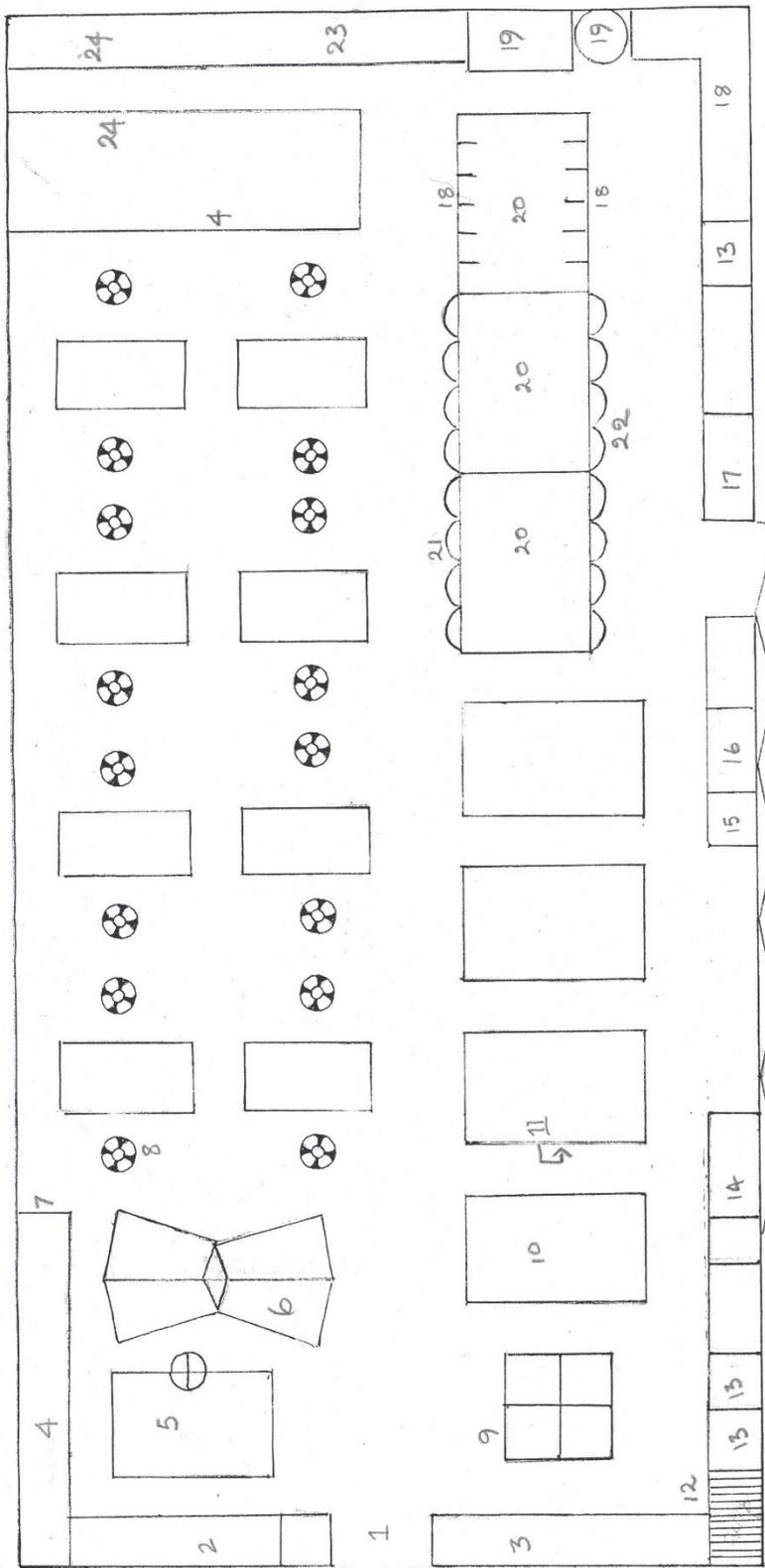
Moulds

These are for your use but please don't take them home. Once your work is leather-hard it can be removed from the mould.

Clean up

Clay slops should not go down the sink drains. **There are baths outside the back door of the studio, into which slops should be poured.**





- 1 Entrance
- 2 Cone 6 glaze fired
- 3 High fired glazed
- 4 Class work in progress
- 5 Slab roller
- 6 Kick wheels
- 7 Extruder
- 8 wheels
- 9 wedging table
- 10 Work table
- 11 plaster moulds
- 12 Bats
- 13 Tub
- 14 white wedging table
- 15 Warming cupboard
- 16 Toxic glaze ingredients
- 17 Waxing booth
- 18 Glaze ingredients
- 19 Spray booth
- 20 Glazing tables
- 21 Cone 6 glazes ingredients
- 22 High fired glazes
- 23 Damp Cupboards
- 24 Diploma work

Glazing

The Centre provides a range of glazes for reduction stoneware (Cone 11) and midfire (Cone 6) oxidation firings. These glazes are located under the worktables in the glazing area, at the back of the studio. The midfire glazes are in coloured buckets; the stoneware glaze buckets are generally larger but not standardized. All glazes are labelled on the bucket – do not go by labels on lids! Please read through the information on the Glazing Process for further important information.



The Kiln Shed

The kiln shed is across the courtyard on the other side of the house from the studio. In the kiln shed are the gas kiln and electric kilns, and three bays of racks, for stoneware glaze firing, bisque firing, and Cone 6 firing. (There are wood- and diesel-fired kilns in the courtyard on the far side of the kiln shed, and a raku kiln behind the studio building.)

For bisque firing: Work must be bone dry. Measure your work and use the firing chart to work out your firing costs. Pay this at the office, then take your work to the kiln shed and place it on the bisque firing racks (centre bay, under the heading 'Raw Pots Only'). If you are doing a course, your tutor will have a file with your own personal firing sheets in which you can record what you owe. Please clear these charges by paying the amount you owe, at least twice a term. Those not doing a course must pay at the office as each piece requires bisque firing.

For glaze firing: Bottom of work must be completely wiped clear of glaze. Please check that no glaze is clinging to the wax on the bottom of your pot as frequently happens. Put your glazed pieces to be fired on the appropriate shelves for the type of clay and glaze you have used – stoneware (turn left in the kiln shed to the racks that are labelled 'Stoneware'), Cone 6 in the right-hand bay as you walk straight into the kiln shed, labelled 'Mid-Fire'.

Note: Staff will take good care but no responsibility of pieces that are fired in the kilns.



Where to find your fired work

Bisque fired work will be placed in the bisque shed in the courtyard between the house and the kiln shed. Work should be collected as soon as possible, and definitely within 2 months.

Glazed work will be placed on the shelves in the studio, just inside the door, to your right for Stoneware, and your left for Mid-fire as you walk in.

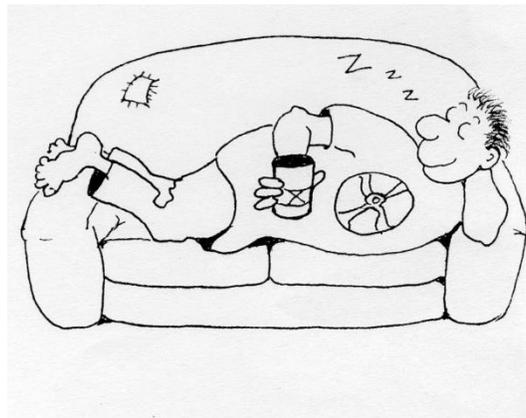
Fired and bisque work will be held for 2 months and if not claimed by that time, will be disposed of by ASP.

The Library

The library is in the house, next to the kitchen. There are signout sheets for borrowing books and DVDs – these may be signed out for two weeks and the file is on the front desk of the office. Please fill all the required details before you take the book home.

The Kitchen

Tea and coffee are available in the kitchen, and you may also use the kitchen to prepare your lunch. Please clean up after yourself!



Cleaning up after Class

It is very important to keep the classrooms and glaze areas clean. Clay and glaze left on the floor will dry and become a fine, nearly invisible silica dust, which is circulated and suspended indefinitely in the air. Although not a problem for visitors, this dust can cause health problems for people who spend a lot of time working in the studio. Please make sure you clean up your trimmings and spills before they become dust.

Doing pottery is an amazing way to make a mess over a larger area than you'd think possible – it's easy to forget all the places you've been. To help you with clean up, here's a checklist for the end of class:

1. Start cleaning up 15 minutes before you have to leave (that's 9:15pm if you're staying till the end of class at 9:30pm or 12.45pm if you are in a morning class)
2. Pour the water and clay from your ice cream container and wheel tray into the bathtubs outside – our plumbing can't handle clay going down the pipes.
3. Check all the places you may have used, and if you didn't clean them before, do it now:
 - a. Wedging table
 - b. Hand building tables
 - c. Glazing area
 - d. Extruder, slab roller
 - e. Your wheel
 - f. The small table next to your wheel
4. Put away any batts, moulds, heat guns, etc you may have been using – if you're not sure where something goes, just ask. Make sure batts are at least scraped clean of clay before you put them away (washing is ideal but scraping is okay).

Thanks so much. Anything you don't clean up, your tutors have to – they get in trouble if the studio isn't clean when the next class comes in!



Student Health and Safety

As per the new Health and Safety at Work Act 2015, we expect everyone on site to take reasonable care for his or her own health & safety and to co-operate with the policy or procedure that ASP has in place

Be aware this is a dusty environment. Clean up only with water and sponge - no dry brushing for clay and glaze cleaning. Use a dusk mask and rubber gloves as some glazes are caustic, and all clays and glazes can produce a dust hazard. Ask the office for a mask or buy one yourself as these will serve you well in most pottery situations. The best respirator for you to use are the ones that seal around your face with replaceable cartridges rated to prevent silica dust inhalation. Always put the fan on when you use the glaze booth or wax booth.

Wet hands and electric power don't mix - always use dry hands when turning electrical equipment on and off.

A bag of clay is heavy - lift properly without using your back like a crane or ask someone for help.

Be careful when you enter the kiln shed as some kilns can be still very hot during and after firing.

Please ensure you sign in when you use the studio. You will find the book on the front right hand desk as you enter.

The Glazing Process (Stoneware)

1. **SANDING** (optional) – No sanding of greenware or bisqueware in the studio – please sand outside. This is not just a health hazard, but a hazard to our glazes and can disrupt the surface of other people’s pots- in-process. A light sanding of the biscuited piece can smooth out rough patches. Blow or wipe dust off. Make sure you do this outside as bisque dust can be a hazard to health, our glazes and other people’s pots.

2. **WAXING** (optional but usually saves time). Use hot wax – wax should be hot enough to raise some light smoke and flow easily. Best done on the banding wheel for really accurate results. Any wax spill can be scraped off or the pot can be re-biscuited for best results.

3. **STIRRING THE GLAZE**. This **MUST** be done thoroughly and regularly (every couple of minutes). The particles in the glaze are insoluble (like sand) and will always sink leaving just water at the top. The first stir is best done by hand right to the bottom of the bucket – after that a stick is OK. If the glaze is solid at the bottom you just have to spend time getting it moving.

3A. **GLAZE THICKNESS**. We have a technician who checks the glazes regularly. **PLEASE DO NOT ADD WATER TO OUR GLAZE BUCKETS**. If there’s a problem, talk to your tutor.

4. **DIPPING**: In and Out – no more than the time it takes to say “Crikey that’s cold”.

DO NOT PUT POT BACK IN TO COVER A SMALL BLEMISH – this is the same as double dipping (see No 8) and glaze will run. Touch up with brush or finger.



5. **SPRAYING**: You may only use the spray booth once you have been shown by your mentor. It can be an essential technique for some of our glazes notably Shino, Pale Blue. Hard to spray inside pots, so pour them. When finished, spray water through the gun and also put your finger over the end of the nozzle to

clear out the tubes. Clean up the booth (if you are last). It is good etiquette not to use the spray booth for more than 30 minutes at any one time, in consideration of others waiting to use it.

6. **TOUCHING UP:** Just a light dab of glaze off the end of your downward pointed finger or a brush will do.

7. **SECOND LAYER:** Our glazes are stable if dipped quickly and are applied in a single coat. If they are double dipped **THEY WILL RUN!** So it's OK on the inside but not on the outside below halfway.

DO NOT APPLY 2 LAYERS OF OUR RESIDENT GLAZES BELOW THE HALFWAY
POINT ON THE OUTSIDE OF YOUR POT !!!

8. **DIRTY BOTTOMS:** Last thing to do – wipe the base with a damp sponge. Glaze will stick to the wax on the bottom of your pot and needs to be wiped off. Any excess glaze will (if fired) stick the pot to the shelf. However they won't be fired anyway.



9. **POTS TO KILN:** Glazed pots go to either the racks on the far wall with the heading 'Stoneware/Cone 11', or on the right hand side racks under the sign that says 'Mid-Fire', depending on which glazes you have used. Please make sure you put your pots on the correct shelves in the Kiln Shed – if you're not sure, please ask!

STIR WELL – DON'T OVERGLAZE

DON'T ADD WATER TO ANY GLAZE BUCKET

Glazing really starts.....

Glazing really starts when you make the pot. Not just colour and finish, but thinking about the method of glazing you want to use, how you are physically going to support your pot when you glaze it, how much the glaze will run, etc.

Planning the glazing process ahead of time: Insides should be done first and left to dry; glaze drips and pinholes are best dealt with once the glaze has dried and can be scraped or rubbed smooth.

On the day:

- Make sure you have what you need: pouring jug, sieve, sponge, towel
- Clear and clean the area where you're going to work
- Waxing: ease of cleaning, prevent staining white clay with oxides in glaze (may not wipe off). Downside is that glaze can bead and run off, causing drips.

Preparing your glaze:

- Stir with the metal stirrer in a 'pump' type action. This gets all the good stuff off the bottom of the bucket.
- Do not add water to any glaze bucket. If you're unsure of the consistency, talk to your tutor.

Glazing:

- mime the process first – check that you have space in the bucket to dip, how you will hold the pot, that you can turn the pot to pour the glaze off the way you want, how you will put it down etc.
- stir the glaze between each glazing process – sinking materials, water on top
- TIP: Resting the pouring jug on the overturned lid of the glaze bucket keeps glaze off the table (and reusable).
- Dipping in the fingers also give them a glaze coating which helps as you let go of the glazed pot and to touch up the finger marks
- Dip either holding the pot with your fingers or using tongs.
- Hold pot upside down; use a sponge to catch last drips. Don't shake the pot!!
- Always wipe the glazed pot's base at least 2-4mm up the side. If it's a glaze that is likely to run wipe it further up!

Glazing Tips

Some questions you should ask yourself:

Which Clay?

Make sure the glaze you are about to use suits the clay that you made it in.

Is the pot that you are about to glaze bisque fired?

If not have it biscuit fired first. The bisque firing range at ASP is 1000 C.

Make sure that, when it is finally glazed, it is fired to the correct temperature for both the clay and glaze used.

Which glaze?

Is there enough glaze for me to glaze successfully?

What temperature does it fire to?

Which kiln?

How thick?

Should I spray or dip the glaze?

The bisque temperature affects how the pot will take the glaze.

A higher biscuit firing temperature makes the pot less porous so it takes in less glaze. Sometimes this is an advantage.

When you are ready for glazing, there are a number of things that will help your final result.

Sometimes, actually often, to glaze well you should allow as much time to glaze as it took to make the pot, so follow through with careful glazing.

Keep it simple. Practice, and get to know the glazes.

You can wax the base of your pot to keep glaze from covering it, and save cleaning time, particularly if you are using a dark glaze on light coloured clay as the oxides, particularly iron loaded glazes, stain the clay.

The size of your pot and the amount of glaze you have will have an influence on the method you use.



Should you spray or dip?

If the pot you are about to glaze is tricky, particularly if the top surface is not even so it may pour out of the lowest edges, mime the process first, so you know what actions you are going to take. If you are less experienced, use a simple process; don't make it more difficult for yourself. Use one glaze only?

Get to know the glaze you are going to use. Look at the glaze on other peoples' pots, if there are none to look at do a test on a spare biscuit piece and wait until you see the result.

Is it a glaze that is likely to run?

If using a decoration process should it be under or over the glaze?

Always wipe the glazed pot's base at least 2-4mm up the side. If it's a glaze that is likely to run wipe it further up! If you don't do this it may stick to the kiln shelf and be ruined, and the shelf too.

Decide:

Is the glaze in the bucket too thick - too thin? If in doubt use the finger test. Stir the glaze and dip your finger into the glaze, a rule to go by is that you should be able to see just the outline of your nail through the glaze.

Stir well, stir well, stir well, and check.

Does the glaze you are using need to be thick or thin? Some glazes definitely need to be thin; Abbots Clear Glaze for example.

How are you going to hold the pot to minimize finger marks?

Is it going to be too heavy to hold with glaze inside?

When you pour the glaze out where are you going to put the jug?

Have you got a jug?

Does it need another stir?

Always stir the glaze between each glazing process, with some glazes the ingredients sink very quickly.

Which side of the pot are you going to pour the glaze out of?

Remember to hold it upside down until it stops dripping after you pour the glaze out.

Is it too big for the glaze bucket? Does it need to be put on sticks over the bucket and the glaze poured?

Would it be better to spray the glaze?

Are you wearing a mask to spray?

Spraying has a lot to do with setting the gun up right and setting the regulator pressure. Seek advice on how to use the Spray gun.

If you glaze the inside of your pot first you may have to leave it to dry a little (or maybe until the next class) before you glaze the outside. The biscuit pot is porous; when you glaze one surface it can soak up water and make the outside take the glaze poorly. Be safe leave to dry before glazing the outside.

Alternatively, if you actually want the glaze on the outside of your pot to be thin, glaze the inside first and do the outside immediately afterward. The glaze take up on the outside will indeed be thinner than the inside.

If you have dribbles on your glazed pot leave it 24 hours and then, with your fingertips,

very lightly rub until the double thickness has gone. Remember just rub the raised part, care is needed so you don't thin out the areas around the dribble!

Does it have pin holes on the surface of the glaze? If so, don't worry, but leave to fully dry (24 hrs) and gently rub over. It probably will melt smooth in the firing.

If it has big air bubbles or finger marks, dip your finger in the glaze and fill the hole with the drip. Rub as above to even the surface.

Getting ready to glaze:

It pays to have the place that your pots are sitting on nicely spaced (even one pot) and comfortably within range of the glaze bucket and a good height. It's real easy to find yourself clutching a dripping masterpiece and wondering how you are going to safely put it down.

Prepping your pots: Make sure you've sanded off any bumps, and blown or sponged off any dust. Mask?

Prepping your glaze:

If you're not sure of the glaze thickness, talk with your tutor. We have a technician who ensures the glazes are the correct consistency. PLEASE DO NOT ADD WATER IN THE GLAZE BUCKET

If you're pouring or dipping, it's worth sieving the glaze before you use it to get out any foreign crumbs or lumps. Midfire glazes are unforgiving, and if you have to pick out a speck and patch the spot it will show in the fired piece.

If you're dipping, make sure you have enough glaze in the bucket or wok to fully dip your piece. If you have a tall narrow pot, you can pour the glaze into a narrower container to get greater depth.

Prepping your work area:

Make sure you've cleaned the area of any other glaze or oxide spills.

Have a container of water, sponge, towel, and wooden or plastic scraper to hand.

Glazing:

Between pours from a jug, rest the jug on the overturned lid of the glaze bucket to keep glaze drips off the table (and recyclable).

Stir the glaze between dips or pours to make sure colourants etc haven't settled.

If you're waiting forever for that last drip to fall off the pot, touch the end of the drip with a squeezed-out sponge to suck it off. Don't shake the pot, as you may cause drips or lines in the rest of the glaze.

Wipe every bit of glaze off the bottom of your pot. Otherwise, it'll stick to the kiln shelf and neither you nor we will be happy.

Tidying up: If you need to remove glaze from your pot, scrape off as much as you can with a wooden or plastic scraper (you can scrape it into a bowl and then add it back to your glaze when you've finished for the day) before sponging off the rest.

Finally, if you are in an ASP workshop, it is your responsibility to put it on the correct shelf for firing, ask yourself again

What temperature does it fire to?**Which kiln?**

Centre Glazes

Characteristics and Quirks

STONEWARE (Cone 11, reduction, gas kiln)

Shino – white where thick, orange to brown where thin. This effect strongest on brown clay – white clay will give a peach colour where thin. Thick white shino will craze, takes india ink well for crackle effect.

Shino is an unusual glaze, it's more like a clay, and reacts badly if applied over other glazes – may cause roughness or bubbling. Usually okay under other glazes.

Copper red – copper glazes are somewhat unpredictable. The copper red doesn't have much copper in it, so if applied too thin or fired in a hot spot in the kiln, the glaze can burn out and be a very pale blue/clear.

Oribe – this is a copper saturated glaze, and comes out dark green with a metallic sheen. It is NOT FOOD SAFE. If acidic foods are put in contact with it (pineapple, tomato sauce, etc) the glaze will change. Dry food is okay, but it's generally best not to use on food-contact surfaces.

Ching Pai (pale celadon) – very pale transparent blue. Because this glaze is transparent, the colour of the clay will show through and affect the colour of the glaze: the brightest colour is achieved over porcelain.

Chun – when used by itself looks very similar to Ching Pai, but actually has some opacity when thicker, caused by tiny bubbles. Chun tends to run more than the other stoneware glazes. It's used over Tenmoku to create bluish-white patterns, but it's important to remember when double-dipping it that it will run down the pot a lot and allow for this (don't double dip past halfway). Chun over copper red can give a purple effect.

Duncan's white – an opaque, shiny, white white. The whiter of the two stoneware whites. Doesn't speckle over brown clay.

Lex's white – this glaze is less shiny and less bright white than Duncan's white. When used over brown clay, will speckle where thinner.

Tenmoku – On brown clay, shiny black where thick, brown where thinner. Breaks from black to brown on edges. On white clay may be a more greenish slightly transparent black.

Tessha – Opaque, satin reddish/purplish brown. Layers well with wax resist and other glazes underneath – Lex's White, Pale Blue, Ching Pai. Goes blackish brown over Pale Blue.

Pale Blue – Matt/satin blue glaze, more a mid-blue than pale. Will speckle over brown clay if not too thick.

MIDFIRE (Cone 6, oxidation, electric kilns)

Transparent Clear – Good all-purpose glaze for covering underglaze decoration, agateware, etc. Apply very thin.

Sarah's White – reliable shiny white opaque glaze. Apply thin. Layers well with other glazes. Can be used for Majolica type decoration with oxides or stains applied on top – mix with a little bit of clear glaze to ensure these flux (instructions next to test tiles on wet cupboard door). If applied too thick may crawl (move on pot while melted, creating bare patches).

Silky white – matt off-white glaze, sometimes speckling tan. Will stain over time if used inside mugs. Can crawl if too thick.

Duck egg – matt tan with pale green and tan flecks depending on thickness. More variation over brown clay. Crawls badly if too thick.

Pale green – Satin matt, shinier when thicker. More variation in colour (breaks to tan) over brown clay. Crawls if too thick.

Transparent green – Shiny transparent slightly bluish-green glaze; can go opalescent blue where it pools; can have brown streaks through it. Over Sarah's White even bluish green, no brown. Under Sarah's White mottled green and white.

Transparent blue – Shiny transparent mid- to dark blue glaze. Lighter blue over Sarah's White, mottled blue/white under Sarah's White.

Turquoise – Transparent turquoise glaze, will craze (form tiny cracks). Best over white clay for clear colour. Runs badly if applied too thick – leave a good clear margin at the base and dip pots upside down if possible for best effect.

Earth amber – Transparent mustard brown/ochre glaze.

Matt black – even matt/satin black glaze. Layers well with Sarah's white to form grey (when over white) or mottled grey (when under white).

Floating blue – Dark blue shiny glaze with gold/tan variation through it (rutile). Behaves differently over different clays – best to test. If applied too thick will form a solid greenish-tan.

Common Ceramic Terms

Bagwall - The wall on the inside of a fuel burning kiln which deflects the flame from the wear.

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.

Batch - A mixture of weighed materials such as a batch of glaze or slip or a clay body.

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

Bisque - Pottery which has been fired once, without glaze, to a temperature just before vitrification.

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

Bone Dry - Completely air dried.

Burnishing - The ancient rubbing process of burnishing polishes the outside skin of a clay pot while greatly reducing its porosity. This finishing is done by hand, using a stone or a metal piece which is usually embedded in a wad of wet clay that perfectly fits the burnisher's hand.

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

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

Chuck - A piece used to aid the potter in trimming. A chuck is a form that can hold a pot upside-down above the wheel head while the potter trims it. Chucks are thrown and bisque fired clay cylinders which are open on both sides.

Clay - Alumina + silica + water.

Clay body - A mixture of different types of clays and minerals for a specific ceramic purpose. For example, Porcelain is a translucent white clay body.

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.

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.

Crazing - The cracking of a glaze on a fired pot. It is the result of the glaze shrinking more than the clay body in cooling process.

Crawling - A bare spot (from the shrinking of a glaze) on a finished piece where oil or grease prevents the glaze from adhering to pottery.

Damper - A slab of refractory clay that is used to close or partially close the flue of a kiln.

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

Earthenware - A low fired clay body. Glazed pottery is fired to a temperature of 1,830 - 2,010 degrees Fahrenheit. Available in red or also white.

Englobe - Colored clay slip used to decorate Greenware or leather hard pieces before bisque firing. Clay and oxide and water.

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

Firebrick - An insulation brick used to hold the heat in the kiln and withstand high temperatures.

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

Flux - A melting agent causing silica to change into a glaze.

Foot - Base of a ceramic form. **Frit** - A glaze material which is derived from flux and silica which are melted together and reground into a fine powder.

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

Glaze firing - The final firing, with glaze.

Gloss Glaze - A shiny reflective gloss.

Greenware - Unfired pottery. Ready to be bisque fired.

Grog - Fired clay ground to various mesh sizes.

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

Kiln Furniture - Refractory posts and shelves used for stacking pottery in the kiln for firing.

Kiln Wash - Mixture of Kaolin, flint and water. It is painted on one side of the kiln shelves to separate any glaze drips from the shelf.

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.

Majolica - A low fire glazing technique. The process involves applying an opaque tin glaze to earthenware and painting it with different colored oxides.

Matt Glaze - A dull glaze surface, not very reflective when fired. It needs a slow cooling period or it may turn shiny.

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.

Maturing Point - The temperature at which the clay becomes hard and durable.

Opaque Glaze - Non-transparent glaze, it covers the clay or glaze below it.

Oxidation - Firing with a full supply of oxygen. Electric kilns fire in oxidation. Oxides show bright colours.

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

Pinch - Manipulate clay with your fingers in your palm to a hollow shape. Pinch pots are a popular beginners project.

Plasticity - The quality of clay which allows it to be manipulated into different shapes without cracking or breaking.

Porcelain - White stoneware, made from clay prepared from feldspar, china clay, flint and whiting.

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

Pug - To mix.

Pug Mill - A machine for mixing clay and recycling clay.

Reduction - Firing with reduced oxygen in the kiln.

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

Satin Glaze - A glaze with medium reflectance, between matt and gloss.

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

Slip - Clay mixed with water with a mayonnaise consistency. Used in casting and decoration.

Slurry - A thick slip.

Soaking - Maintaining a low steady heat in the early stages of firing to achieve a uniform temperature throughout the kiln.

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

Stain - Oxide and water, used as a colorant for bisque wear.

Stoneware - All ceramic wear fired between 2,100 and 2,300 degrees.

Transparent Glaze - Transmits light clearly.

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

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

Wedging - A method of kneading clay to make it homogenous by cutting and rolling.