

# The Process of Making a Pot

## Notes from Demo at AABC Conference, May 2010

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**Clay:** Rocks from mountains have been washed down millions and millions of years ago and have aged and seasoned, deposited in lower valleys and worn down. When local clay deposits are discovered they are mined, taken to a factory, pulverised to powder and then mixed with water and chemicals. The clays vary according to the local environment and the type of rock that is in their makeup. They are then packaged for the consumer. Clay is not a permanent resource and deposits of clay can be mined to extinction, ending a particular type of clay.

To begin making a pot, the potter picks up the packet of clay and drops the bag on the concrete. This 'wakes up' the clay. The sudden jolt helps the settled particles become more jelly like and plastic. If you throw on the pottery wheel, and keep working at it too long, the clay is said to get tired. It is best to then put it aside and leave it to rework later. Fresh clay is easier. All the scraps can be recycled, and re-kneaded to use again.

### Types of Clay:

*Terracotta:* Used in flowerpots, it is usually unglazed and low fired, so it is porous. Moisture is quickly dissipated and the pot is reasonably fragile. *Earthenware* is ware that has been fired at the same low temperature.

*Porcelain:* This white, fine particle clay is high fired, and can be fashioned into items that are incredibly thin and delicate. This clay is generally too delicate for bonsai pots.

*Stoneware:* Stoneware is a good clay for bonsai pots. It melts at a specific temperature, 1300C, and is what is called 'vitrified' by the firing process which means it is no longer porous and has become 'stone' like. The high temperatures sometimes create distortion due to the clay almost melting. It comes in a variety of earthy colours.

When a potter decides which clay to use the choice is from white, brown, grey and shades and textures in between. The potter must have an affinity with the chosen clay and understand its limitations and qualities. The pot is fashioned either by hand or wheel and then has to dry slowly with a procedure necessary to keep the pot from cracking. If there is a draft on one side of the pot, it could dry faster than the other with disastrous results. I have a piece here that has dried too quickly on one side, and after the first firing, it has cracked right through on one side where it has shrunk more quickly than the other side.

### Types of firing:

1. *Bisque:* Once it has dried completely, known as 'bone dry', it is fired in the kiln. The first firing is called the Bisque Firing and stabilises the pot and readies it for the glaze.
2. *Glaze:* The second firing is to melt the glaze into the pot surface. The type of finish depends on the type of clay used in combination with the glaze. Gas kilns use 'reduction' firing that cannot generally be done in an electric kiln. Gas kilns get hotter faster than electrical kilns and are more energy efficient.

**Raku:** This is a Japanese word that has become synonymous with a name for a type of clay and firing process. When the pot is removed red hot from the kiln it is plunged into a container of water or a pile of sawdust to get the decorative finish that makes it Raku. These enormous stresses mean Raku ware is not watertight or strong enough to be used for bonsai pots.

**Wood Firing:** This is sometimes mistaken for Raku firing. It is much hotter and stronger than Raku. Wood firing takes at least 12 hours to reach temperature, by feeding the flames, which produce ash at such a high temperature that it melts into glass or *glaze*. This is deposited onto the pots from the direction it has flowed through the kiln.

**Glazes:** Glazes can be glossy, satin, matt or unglazed or a combination of those. The glazes are applied by being dipped, brushed, sponged or painted. Some things go wrong. At displays of pottery, you don't see the hard work and many hours of testing, cracking, explosions, dribblings, flakings, and warpings that may have happened. Each glaze and clay needs to be tested first to see if it works, and how it will look. Shiny glazes tend to be more feminine and matt or unglazed more masculine in bonsai aesthetics.

**Design:** The rim is really important in choosing a pot. The eye first sees the bonsai tree then follows it down to the rim of the pot, so it is an important feature that we sometimes overlook. When you look at a pot, analyse its form to see if the rim, wall shape, feet and glaze blend together. They all tell of the character of the container and whether you can trust it to hold the tree comfortably. The rim of the pot is our first introduction. First impressions stick into our subconscious mind. So we must make the rim seem "convincing". Do you believe this pot? If it is weak, we get the impression that it won't hold to its purpose. It can be chunky in design, even child-like, but executed with care and thought. A carelessly made pot doesn't give the spontaneous look we are sometimes after. True spontaneity comes from years of hard work and experience.

In summary, to make a finished pot, you buy the clay from the shop, condition it, prepare it, form it, dry it, taking sometimes more than a week. Then the first firing takes 8-13 hours, then it cools down taking another day. Then comes the decoration and glazing, then second firing up to higher temperature. The firing works best if the kiln is packed tightly filled with pots, so we need to wait until there is enough work to fill it. This firing takes a couple of days too. So one piece takes a couple of weeks.

So next time you pick up a piece of hand made pottery, think about the whole cycle it has gone through, from the mountain to the bottom of the river, to the factory then to the first touch of hands of the potter, and finally into your hands for prosperity.