

Elements of Ceramics

When you break down the teacup that sits on your breakfast table into the elements that made it, you find yourself on a voyage through some pretty interesting stages of matter. It is hard to equate the clean looking receptacle of your daily morning tea or coffee as having once been a bit of slush, smooth, gooey stuff that you could stick your hand into with a feeling of 'oooh, I hope this stuff washes off!' The consistency could be described as somewhere between cake batter and melted chocolate. The potter looks at this mass in his drying tank, and figures a few more days before she/he can get it out and between sheets of cloth weighed down by terra cotta tiles for the next stage of hardening. Eventually, the bit of slush (we could call it the prehistoric tea cup) ends up with a lot less water in it, in a plastic bag.

At this point the clay has a consistency of moldability without stickiness. Everyone loves this matter, it responds to the slightest pressure of the fingers, but comes off clean. It conveys to the hands

that hold a piece of it, the absolutely endless possibilities of form that it could be given. At this stage, it is the earth element that predominates. For the potter, it is this consistency and the variations on this (harder or softer) that are essential in the making of the teacup. Most teacups are thrown off the hump. A large amount of clay is placed on the wheel and the top bit is centered and formed into a cup as the wheel spins around. The cup is skillfully cut from the hump with a cutting wire and carefully placed on a board along with others like it to dry. The water element starts leaving the cup, and the next day it can be picked up without fear of losing its shape and turned over for the cutting out of its foot. In potter lingo the cup is now leather hard. The handle that allows you to pick up your cup of boiling tea is also attached at this leather hard stage. Now the cup is allowed to dry out completely. All the visible water element is gone, and there remains the hard and dry earth element, frail and to be handled with care. At this point, if the water element comes in contact with the cup, the clay happily dissolves back into slush. Therefore

the fire element has to be introduced, and this takes care of that bad habit.

The cup gets its first firing that leaves it porous, but hard and not interested in water any more. As the fire dances around it, and enchants it with its color and the sensation of heat, the molecules do a slight shifting thing, (at around 500 to 600 degrees centigrade) that can be likened to an emotional shift from complete indifference to being head over heels in love. Now the last trace of water has left the clay. And it is ready to be dipped into a bucket of glaze. Glaze is a mixture of minerals, oxides, and some of the building blocks of clay all suspended in water. But none of this impresses the cup that comes out of the dip with a perfect coat covering it all over (except the foot, where the potter has hopefully remembered to apply some wax). Then comes the final stage, in which fire does do the completely amazing alteration of porous clay, minerals etc. into the clean looking enamel finished tea cup that you now tip the last of the tea

out of, before heading off into the day.

There are different theories about what actually takes place in this last love affair between the fire and the clay over the hours and hours (between 10 to 15 easily) while the potter watches the pyrometer and throws in the fuel. I believe that some dragon rises out of the center of the earth, to play in the flow and roar of the fire and air as they race through the kiln.

Finally, it is the last stage of the voyage from the slush to the cup, a long slow cooling, during which the clay befriends the air and it's natural temperature. The potter picks the cup from the shelf, still too hot to touch. And for a moment there, there is an acknowledgement between the cup and the maker, a silent 'ah' for the journey done together.

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