

## Hands-on Alternative Firing Workshop with Marcia Selsor Sept. 26-27, 2015

### Class – demonstration/discussion

#### Introduction

Marcia will present examples of alternative firing techniques using raku kiln. Questions during this presentation are welcomed. Drawing, Resist, Color and Chemicals! Ceramic Saggar-fired  
An overall look at applying decoration to pieces in alternative firing processes: raku, carbon marking aka horse hair or feathers, and saggar firing, chemical application for foil saggars, Demonstration on throwing cracked surfaces for the Obvara technique. Demonstration of drawing on bisques slabs, applying latex, applying glaze, and removing the latex. Then additional color of luster lines is applied with an applicator. On going discussion of firing techniques will add to the session.

#### Horse Feathers!!!! or Horse Hair and Feathers

The process:

The piece should be prepared ahead of time and fired to a ^09 bisque. Hotter than ^09 and the surface could seal making the carbon burning less absorbent. An ideal shape is a smooth surface with a 1" hole in the top for a heavy wire hook. Coleman Porcelain is recommended, but a smooth thermal resistant white clay body will do. The surface should be coated with terra sigillata onto dry greenware and burnished with a soft cloth. The piece needs to be light so the weight of the pot doesn't stress the lip and break. Heavier pieces can be lifted by tongs, but which may mar the surface.

This is a fast firing process to 1100 degrees F. in a raku kiln for fast removal.

Each piece is picked up using a coat hanger hook inserted in a small hole in the top of the pot. It is placed on a bed of sand or a blanket of fiber, rolled over the pre-arranged horse hair or feathers quickly and inverted to cool slowly. -Less than 5 seconds. We will have several small raku kilns for these firings. The first batch should take a half an hour and then get quicker as the kiln stays warm between the firings.

As we progress through the batches of 4-5 pieces , participants can assist with the rolling of their work or pulling the pots from the kiln depending on how comfortable they are in doing this.

Each person should bring several small bisqued pieces up to 5"max. dimension for this process.

If you have a pair of heat resistant gloves, bring them if possible. If time allows, two may be fired.

The piece should be burnished preferably with terra sigillata and bisqued to ^09.

Discussion will cover surface preparation, burnishing techniques, coloring techniques and removing from the firing to the carbonizing station. Description of what the attendees will be doing: We will be firing in several small raku kilns with several pieces at a time. Participants will help with the removal of the pieces.

The maker of each piece will roll their own piece onto the horse hair or feathers

Selsor Ceramic Saggar-fired Orb 2014

Selsor Feather pots



\* **SIMPLE Terra Sigillata recipe.** Fill a plastic liter bottle with 3/4 full of water. Add 250 grams of ball clay and a couple drops of Darvon 7, or Darvon 811 or sodium silicate. Add more water until the bottle is almost full. Put the top on tight and shake well. Let the mix set for an hour or so..until you see three separate areas of the mix. Clear, light and dark. If the top layer is completely clear, add more Darvon. You want some color in the top layer. Punch a hole at the bottom of the middle layer and let it squirt into a bucket. Wait until your piece is bone dry and apply to the piece with a soft brush. Burnish after each application. I use a soft sponge for burnishing. You can apply several coats as until it is shiny. Too much Terra sig can lead to peeling or cracking.

**Obvara** is an ancient technique originating in the 6th century in Eastern Europe. It was used in rural areas to seal the porous pottery for food.

**Obvara Solution** (this will be made by the hosts)

2.2 pounds of flour  
1-2 packets of yeast  
1 Table spoon of sugar  
2.6 gallons of water  
Mix well, cover and let it ferment for 3 days

The Process: Pieces can be stacked since there is no glaze, but they must be kept around 1600-1650 F before hitting the Obvara solution. If the kiln goes below 1500, the pieces are under fired and slimy each piece is dipped quickly into the brew and pulled out. It changes color before your eyes. When it is to an interesting point, dip it into cold water to stop the burning. Place it on the sand to dry.

What to bring: 2 pieces easily picked up by raku tongs. One textured and one smooth would give you 2 different results.

Expectations: understanding the process and leave with two pieces

Obvara firing on textured porcelain

.Obvara on burnished porcelain



### Ceramic Saggur Firing

Pieces should be made of a porcelain or smooth white higher temperature clay. Burnish with terra sig and bisque fire to ^09. Make a ceramic saggur from raku or a stoneware clay and bisque ro ^04 or ^06. Bring some bits of broken kiln shelf or a 1" post. The piece is loaded into the saggur with wood chips and sawdust, copper carbonate and salt. Other additions can be used for experiments. The pot should have 1" clearance on top, bottom and sides. Steel wool, bronze wool, recycled copper wire is arranged around the surface. The pot is covered and the kiln fired to 1650 , held for 20 minutes and allowed to cool.

What to bring: 2 burnished pieces and 2 saggars to hold them. A 1" post, and combustibles like dried orange peels, banana peels, seaweed, small (1") bits of wood and a handful of 2 of sawdust for each pot. Some recycled copper wire, steel wool, bronze wool,  
After the cooling the pieces should be rinsed. They can be waxed a few days later with a floor paste wax.

### Raku Firing

I prefer to glaze the day prior to firing to allow the glaze to dry. We'll be using some freshly made matt raku glazes and some luster glazes for lines. The matt glazes should be applied thinly for best results. The luster lines should be applied with an applicator. Screen through 80 or 100 mesh screen. I will demonstrate drawing and latex resist on tiles. The glaze is brushed or sprayed on. The latex is completely removed. Additional decoration can be done where the latex had been. Pieces will dry overnight. Raku pieces are fired to 1850 degrees, removed from the hot kiln and placed in a combustion chamber.



What to bring: a good brush, cheap brushes for latex which can ruin them. I will provide the latex. Bring a soft lead pencil for drawing  
Expectations: expanding raku technical skills and processes. Objective: Leave with 2 pieces.

### Foil Sagger Firing

Salts like Sodium Chloride, Copper Nitrate, Epsom salts, Ferric Chloride are applied to the surface of a burnished bisqued fired piece wrapped up tight with heavy duty aluminum foil to seal in fuming as the pieces are fired between 1250-1400 degrees F. A vapor mask is recommended and nitrate gloves are required. Mixtures are made up of a saturated pint of water with 100 grams or more of the salt.



**Raku Recipes:****Steve's Basic White**

Gerstley Borate	65
Ball Clay	5
Neph Syen	15
Tin Oxide	10
Sllica	<u>5</u>
	100

**Tom Buck's Copper Sand #3**

Gerstley Borate	20
Frit 3195	65
Talc	5
Bone Ash	<u>14.5</u>
	104.5
Add	
Cobalt Carb.	2.5
Copper carb.	5

**Fergus Iridescent** Apply thin

Gerstley Borate	80
Bone Ash	<u>20</u>
	100
Add	
Cobalt Carb.	2.5
Copper carb.	5

**Rainbow Sand**

Gerstley Borate	80
Bone Ash	20
Neph. Syen.	10
Lithium	<u>3</u>
	113
Add	
Cobalt Carb.	3.5
Copper carb.	5

**Red Bronze -Piepenberg**

Gerstley Borate	50
Frit 3134	48
Tin Oxide	3
EPK	2
Black Copper Oxide	2.5

**Post Pacman**

Gerstley Borate	5
Neph. Syenite	1
Bone Ash	1
Copper Carb	1
Red Iron	1/8
Manganese Diox.	1/8

**Marcia Selsor's teaching philosophy**

"Ceramics is a beguiling medium which can engage a lifetime of exploration. Marcia has been working in Raku for almost 50 years beginning with a workshop with Paul Soldner in 1967. Although her experimentation in clay has lead to a wide variety of processes, she still fires raku, builds kilns and fires in a wide range of temperatures to meet the needs of a particular goal. Fast firing processes give 'instant gratification', more impromptu ideas to keep trying various approaches until satisfied. We can use a surface, prepare it to react in a certain way or reheat and erase. Flashing, fuming, smoking, post firing chemical effects, can create infinite possibilities."

**Additional information**

She currently teaches workshops on Architectural Ceramics, Throwing techniques, ^6 Reduction Firing and Alternative Firing using a raku kiln.

For questions contact Marcia at [info@marciaselsorstudio.com](mailto:info@marciaselsorstudio.com)  
Review processes at [marciaselsorstudio.com](http://marciaselsorstudio.com) under alternative firings