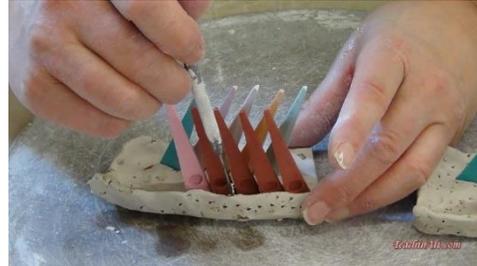


Review Week 2 (kiln loading considerations)

Making cone packs.

- Cones are formulated to bend at certain temperatures, measuring temp and heatwork.
- The cones used for this firing are large cones 012, 010, 04, 1, 3 for the front row and cones 5, 7, 9, 10, 11 for the back row of the cone pack.
- I wedge vermiculite into the clay that I use for the cone packs. Sources for vermiculite are garden shops, Home Depot and I've even seen where you can order it on Amazon.
- Vermiculite allows the cone packs to dry faster.
- To make cone packs, I make rectangle slabs from the clay, I turn up the edge of the cone pack that will have the lower cones along it and also across the edge that the lower cones are pointed. When the cones melt, this edge keeps the melted cones from running onto your shelf.
- To assemble the cone pack I start with the lowest cone (012) and place it towards the front of the pack (leaving enough space for the cone to fall and melt) with the cone number facing me and at a slight angle. Then the next cone (010) right after it so as it melts, it will fall on the previous cone. After the first row, I turn the pack around and start the next row at the left, with the cone number facing me. They will be in the opposite direction as the front row. Start with cone 5.
- When all cones are in position, I cut down the clay to the size I want the cone pack to be and then poke holes all around the cone pack with a needle tool to help it dry faster.
- Make the cone packs at least a day ahead of loading so that they will not explode in the firing from being too damp. If you forget to make the cones ahead of time, you can set them in the sun to dry (at least in Colorado you can) or set them on an electric kiln that is firing to dry them fast.
- I make 2 cone packs, one for the bottom shelf and the other for a shelf near the top to monitor the temp top and bottom.
- I also set the cone packs on a "waster" when setting it on the kiln shelf so that if the melted cones run off the cone pack, it will not ruin the kiln shelf.
- You can make a large quantity of cone packs at once so that when your ready to fire, there will always be dry cone packs available.



Loading the kiln

- Handle the pots carefully when putting them on the cart or carrying them to the kiln, I use a piece of plastic so I don't touch the pot with my bare fingers and leave fingerprints.
- You can see the patterns on the pots created by the soda ash.
- Remove plastic, foam, etc from the pots carefully. Everything you used to slow down the drying (except the wax) needs to be removed before loading in the kiln,
- Shino does not work well over other glazes, there is a saying "shino first or be cursed" to help remember this. There are always exceptions to the rule. So in this kiln load, I'm testing Malcolm's shino and white carbon trap shino over the green celadon I use.
- Porcelain can flux slightly at higher temperatures and pieces of the bottom of your pot or foot rings can stick to the kiln shelf, this is called plucking. (This is rarely a problem with stoneware) To prevent this, I use a mixture of alumina hydrate and baking flour on the bottom of the pots. The flour is just to help it stick and is optional.
- I use a ratio of about 3/4 alumina hydrate to 1/4 flour and mix with a small amount of water first to make it easier to mix the flour without lumps. Then add water to make it about a heavy cream consistency.
- To use, brush it on a non-porous surface and then set the pot on it. Do not slide the pot around, you do not want the alumina to get on the side of the pot and touch the glaze. Then set the pot on the kiln shelf.
- Make sure to stir the alumina mixture each time before spreading it on the board, it settles fast.
- Brush shelves off, top and bottom with a stiff brush. The pots made it this far, you don't want to ruin them by having something on the bottom of the kiln shelf that can fall on your pot and ruin it.
- I use 3 post per shelf, it's a very stable. Two posts on one side and one post on the opposite in the middle of the shelf. The back shelf has one post in the back center and two on the front side. The front shelf then has two on the back of the shelf and one on the front side so there are no posts in the middle of the kiln.



- Make sure the stilts maintain this position all the way to the top so all posts are supported by the stilt underneath it.
- In my kiln, the back shelves are placed about a finger's width from the back wall.
- I have found my kiln fires best by having the first back shelf that is above the bottom shelf higher than the shelf in front and then stagger all the shelves from there.
- Knowing how your kiln fires helps you to know where to place the pots. Areas that have better reduction are better for the shino pots. If you have glazes that do not require a heavy reduction, use those pots for areas in the kiln that get less reduction. Its rare that you can get perfectly reduced pots in every area of the kiln.



Loading the kiln (continued)

- I do not fire copper glazes with shinos. Copper can fume onto nearby pots and leave a flash of pink or red. If this is something you like, then it's another way to have variation on your pots. It might look good with a white carbon trap shino pot.
- I loaded all the test tumblers on one shelf to try to have them all in an area with consistent reduction so they would be easier to compare results.
- This kiln has two burners with the burner ports in the back of the kiln. The flames come in and hit a target brick and is directed up through the kiln.
- When stacking the top shelves, make sure to leave room for a flame path, if pots are too close to the top of the kiln, it will block the flame.
- And the opposite, leaving too much space at the top can have an adverse affect on the firing.
- Having pots hang over the kiln shelf can block the flame and also cause the pot to warp.
- When the kiln is loaded, before closing the door, make sure the cone packs are visible through the peeps and everything you don't want fired (brush, etc.) is out of the kiln.
- To preheat overnight, the damper is set at 2 1/2 inches.
- The gas is then turned on to the kiln and the pilots lit.

