

Selfridge Ceramic Art

New "Buffalo Burner" Wood Kiln

Carol and Richard Selfridge

This "coffin" or "train" kiln was started in September 1999 and completed in December 2000



View of kiln in winter from our house



Richard standing by partially opened hinged lid which was cast in place in metal frame

This kiln is a modified version of the John Neely design which I fired in Logan, Utah. I wish to thank John for his long distance advice. It was built *entirely* with 70% alumina wedge firebricks from the local cement company. The thirteen pallets of bricks were in many cases cut on a diamond wet saw. The kiln has the possibility of water introduction for reduction cooling.



8 inch firebrick floor on top of 5 ½ inch cast able on top of 5 1/2 inch concrete foundation. Note the weeping tile and gravel around the foundation. The floor is at ground level with the first 2 feet of the kiln in the ground



Start of checkered exit flue at the base of the new chimney, which serves both kilns Note the exit flue from the old gas and woodfired two chamber kiln.



Cast throat arch and step grate in firebox. Note width of kiln increases to 31 1/2 inches after 27 inch firebox and first throat arch tumble stack firing area



View from firebox through the throat arch and main chamber and chimney.



Checked exit flue with "damper" plugs for firing old kiln. Note step up of floor and narrowing of the tail to 27 inches. Also note backstoking hole on left.



Checked exit flue with plugs removed Note 28 inch silicon carbide kiln shelf that acts as top for tail section.



Carol putting finishing touches on sand mould for inside contour of castable firebrick lid. Note firebox height and the underside of the castable arch which tops the firebox.



Lid cast in place in metal frame, but not yet hinged to the support structure.



Cast top of firebox



Shelf top and insulator bricks with castable over tumble stack area



All potter lid casting crew (L to R), Horst Doll, Chris Barr, Enzien Kufeld, Carol and Richard Selfridge. Chris did the majority of the welding on the kiln with Richard and Horst (fitters in another life) doing the cutting and holding.



Kiln before metal roof, lid lifting mechanism, the last foot of the firebox and chimney bracing. Note spruce wood edgings cut to firebox length in foreground.



Kiln with lid up and safety bars in place after first test firing, before addition of insulating cast able on wire mesh on exterior. Note kiln shelf top of tumble stack area behind firebox with cast able insulation over silicon carbide shelf



Gas after-burner in chimney above damper. This may require a small blower to provide more oxygen. Pipe union allows for removal of burner.



Detail of hinge mechanism welded to lid and frame.



Hansel and Gretel firebox stoking door before the addition of block insulation . Note barn door hardware for sliding door.



Block insulation on metal pins with open door.



View into lighted firebox with hobs and center rod fire bar.



Roof in place for winter snowfall.



View of 2-part counter weight and lid in up position.



Snowy roof over kiln with our house in distance.



Insulated firebox with chimney in background.



Elevated firebox with intake air holes plugged.



Cart half-way out on old gas and woodfired two-chambered kiln. Note damper for coffin kiln on left. There is a sliding damper that separates the old kiln from the base of the new shared chimney.



Richard lifting lid of empty kiln.



Richard thinks about filling the new kiln.

"Unloading of the Latest Woodfiring"

This firing went a lot longer than expected because the cast able throat arch failed and melted, blocking the front of the kiln. Only when that blockage was melted down did the kiln temperature resume climbing and reach cone 11 to 12. We have now rebuilt the throat arch using bricks and anticipate good results from the next firing.



"Stoking the 27-hour Firing"









The following works were in the first firing and range to 30" in height.

