

High & Mid Temp Charcoal Firing



Pots will be tumble stacked in a saggar. Each piece is supported by pieces of wadding





Phillip Cornelius builds the saggar as he stacks the load in a 38 cu ft updraft kiln. It needs to be an updraft kiln.

My Pots



Phil crushes the charcoal and demonstrates scooping it for injecting into the kiln





Phil, Molly Schulps and Chris Turk stoking at cone 5

(I start adding charcoal at cone 04 for my midrange version)

Jen Chi Woo and Ray Gonzales watching





Stoke again at Cone 9

(Midrange: Cone 3-5)

Ray Gonzales and Jen Chi





Cone 9 stoking continues until a 50 # bag of crushed charcoal is used up For a kiln this size. Smaller kilns use less.





Other folks using the high fire process. Note: cold weather is the best time for this sport





NOTE HUNKS OF WADDING SUPPORTING POTS

Wadding Recipe Mix by parts 1- fire clay 1-epk 1-ball clay 2+ sawdust

Stacking the load: tumble stack with plenty of space between. Don't put in too much work, there needs to be space for the charcoal to fall and swirl around



Sangiri effects are created by adding charcoal at end of a traditional wood firing



A great Sangiri scoop \rightarrow



Charcoal fired Works by Phil Cornelius





More by Phill cornelius

Cone 6-7 Charcoal Injection Works









My Small Mid-Range Charcoal Injection Kiln







Start with an old electric kiln outfitted with natural gas burners underneath



Build an elevated saggar using kiln shelves, soft brick, and kiln posts, allowing for good flow of flames around the box. Add a hole in the lid for a stack and one in the front kiln wall for injecting the charcoal



The shelf at front of kiln should be angled a bit upwards toward the stoke hole.

..... **Tumble stacked and ready to go**..... Work on the horizontal side panels will get reduction, but will not get ash fall effects.



After firing. Note shelf near front of kiln has some ash effects as it is situated to keep from getting charcoal and other materials from falling into the area outside the saggar.

Firing the Small Charcoal Injection Kiln



This small kiln can be fired inside a kiln patio. Windy days might require sheet metal wind skirts



Adding a temporary soft brick stack is a good idea

Another Kiln and A Charcoal Firing



Using assorted salvaged electric kiln pieces. Lay down some pavers and top with firebrick. Plan for two opposing burner openings



Ended up only using 3 rings for easier loading and placement of unattached lid

This one is fired with two propane burners (orange arrows)



You can stoke through the flue opening in the lid, if it is large enough and centered above the saggar.. Note: soft brick on lid to adjust the size of the hole in the lid and/or blocking wind. A digital pyrometer is very handy to have



Slightly different design in the saggar for this slightly larger kiln: no horizontal shelves.

Still needed a way to close the gap between the stoke hole and the area around the saggar. You don't want charcoal falling into the area below the saggar where the flames need to pass under and around the saggar and then up to the flue opening in the lid. I used a wedge-shaped piece of soft brick to keep injection materials form falling through to below.

A mixture of ash and Gerstley Borate has been applied to work for ash glaze effects.





Good Results; By the Way this process only takes about 6-7 hours and saves fuel



For more Information: email me at <u>RocketFireCeramics@gmail.com</u>

> visit my website: suzanneshieldpolk.com