

## Soda Kiln: Stacking and Firing

See the information about positioning ware in the kiln in a separate document

We stack starting in the afternoon between 1:00 and 1:30 because we LIGHT immediately after stacking the kiln. It takes two people to do this because of the location of the basso valve switch in relation to the burner. We were advised not to let the kiln get warm for too long before turning it up in the morning as it can cause firing problems. Therefore we do not start the kiln earlier than 3:00 - 3:30 or later in the afternoon.

1. Close all the ports, place the pyrometer in the bottom brick of the door, remove the tin can covers on the burners. Rest the pyrometer on a metal garbage can. Open the Damper to 2 (see the Soda kiln log for these settings). Open the gas at the main (the handle will be parallel to the pipe. Open the gas to the basso valves (here too the handles will be parallel to the pipes.) NOW light the basso valves. One person presses the red handle that is located at the back of the kiln and the other person holds the lighter to the gas orifice. It is necessary to hold this red handle at the back of the kiln down long enough that the probe at the mouth of the burner becomes warm enough to keep the gas valve open and flowing. When that happens, the person holding the red handle can let go and hold down the red handle to the second basso valve that is located under the piece of aluminum to protect it from water dripping off the roof/chimney interface. When both basso valves are lit, you turn on the main gas to A. The flame will be soft and not flowing into the kiln. NOW turn on the power button to the blower. Then turn on the blower to the first setting as written in the Soda log. At this point the flame will be a hard flame, turquoise, and pointed into the burner port. Stay present for 15 to 20 minutes to make sure the kiln stays lit. IT IS IMPORTANT TO LIGHT THE GAS BEFORE TURNING ON THE BLOWER

2. later that evening (between 7:00 and 7:30 PM) someone needs to return to the Guild to turn up the kiln to the next two settings. If we turn the kiln up too fast, it blows out the flame. It has to heat up enough to do each step. Using the Log in the Soda log book, turn up the kiln gas and air to B and to the next blower setting as noted, adjust the DAMPER as well. Wait 20-30 minutes and move the gas, blower and damper to the third setting as noted in the Soda log. Wait 15-20 minutes to make sure the kiln is still running. Leave the kiln until the firer comes the next morning.

3 Next day the kiln is turned up as indicated in previous logs until it is at top settings as indicated in the log.

From time to time we adjust the protocols. So, it is important to look at the log to judge what the latest procedure is.

4. When the firing is done, the gas is turned off in three places: 2 basso burners and main line. The blower is turned off. The ports are all closed with bricks, cans are placed over the burner ends, shelf pieces block the burner ports. Remove the pyrometer and place it in the box on Barb Hyman's shelf or where ever that box may be relocated. Be careful not to crimp the wires to the probe which will break the electrical connection to the pyrometer. Leave the porcelian jacket and probe in the brick - it is too hot to move at this point.

Two days later: open the ports and burner ports ( leave the cans in place so no mice go into the burners) Remove the probe and the ceramic jacket that protects it and place these in the box on Barb's shelf as well.

Three days later: unstack the kiln

Kiln housekeeping:

The shelves in the kiln and the ones removed from the kiln need to be scraped down on both sides and all edges with the carborundum tools in the kiln room. Be sure the first set of shelves are paced equidistant from the bag walls when replaced in the kiln. Be sure to sweep out any loose debris as it will circulate during the firing and will mar your pots.

Examine the door carefully and patch any areas where there are cracks, or where the coating on the door seems to be pulled away from the soft brick and patch carefully. There is a patching compound on the bottom north most shelf of the stack of shelves that are against the kiln room wall. This is used to patch the big areas of exposed soft brick and cracks. We attempt to protect the soft brick from the corrosive effects of the soda/salt burritos that we place into the kiln. After this patch has had a chance to dry, we use special Soda Kiln Wash located on the shelf with the soda glazes and coat the door wherever we have put patch and elsewhere as necessary and the bag wall bricks that come in contact with the door as it is pushed in ( these are the double wide bricks that are directly opposite the burner ports. Sometimes if these bricks build up too much soda the door sticks to them and it is very hard to open the door. When placing those bricks initially, it is important to place them just inside the edge of the area between the bag walls and the walls of the kiln to minimize the chances of this happening. NB: We have also found it useful to put some of the Simon Levin wadding in the area between those double wide bricks and the kiln wall on each side of the kiln to prevent the flame from hitting the car door.