



# *Inspired by* **WOOD FIRING** RICARDO CAMPOS

by Lauren Kearns

I met Ricardo Campos and his wife Rosa Rosel at a potters market in Bandol, France. I was immediately struck by the unique quality of his pieces and the finishing technique that he used. I had never seen anything like this and could not figure out how he was getting the results. I visited his studio in Spain to learn this specific technique that he developed for his unique work.

## **Inspired by a Wood-Fired Surface Effect**

Campos studied at the Artesy Afficios de Granada and Rosa Rosel went to Escuela de la Bisbal. La Bisbal d'Empordà, Spain, was a pottery manufacturing town, similar to Vallauris, France, and was noted for its wood-fired black functional pottery. Campos loved the places where the wood ash caused flashing on the pieces, and wanted to get that effect in a controlled manner. He tried many ways to get the flashing in a reduction atmosphere to avoid the time and expense of wood firing.

## **The Process**

Eventually he developed a process where he coats forms made using local red earthenware from La Bisbal with a refractory slip made from talc, kaolin, alumina, and silica. The talc adds fine particles, helping the engobe to form a tighter resist layer, the kaolin brings plasticity, needed for application of the engobe, and the alumina is the primary refractory, keeping the engobe from fusing to the clay body.

This engobe acts as a resist, preventing carbon from the reduction atmosphere from absorbing into the clay body, allowing Campos to control the carbon-trap effects. After the firing, the refractory slip can be removed as it does not fuse to the surface.

Campos first applies a red terra sigillata to cover the piece. Then he paints or slip trails decoration or imagery using the refractory slip. For application of the engobe, Campos uses a slip-trailing bottle, brushes, sponges, and an airbrush. To use a slip trailer, the engobe is dried out a bit, so the consistency is like yogurt (1, 2). For brush work, the engobe is diluted to work like watercolor. All of the patterns are drawn by hand or created with handmade clay stencils; no wax, latex resist, or transfers are used.



Campos explains that for the patterns, “We draw inspiration from ancient African and Pre-Columbian cultures, the artwork of Emile Galle and Les Massier, nature, and Mediterranean landscapes. Another reference for us was the black on black ware made by Maria Martinez and the Pueblo Native Americans.”

Campos fires to 1742°F (950°C) in reduction. All the pieces are glazed on the inside with a lustrous glaze that looks similar to a raku luster.

After the piece is fired (3), the refractory slip is removed by placing the pot under running water, and rubbing the surface with a white kitchen scouring pad (4). Steel wool and the fibers of green plastic scouring pads are too rough on the surface. When the piece has dried, Campos applies wax (a floor wax or butcher block wax) to finish the piece (5).

The areas of the surface covered by the slip cannot absorb any carbon, and after the firing and cleaning the surface those areas are matte in texture and appearance. The heavier the slip application, the lighter the matte black becomes. The thinner the application of the slip (6–9), the darker it becomes, as more carbon absorbs into the surface. The rest of the terra-sigillata coated surface remains shiny.

#### Reduction Firing in a City

Campos has an elaborate system that allows him to fire reduction kilns (10) inside his studio while controlling the venting of any fumes and smoke as to not disturb the neighbors.

Campos describes a typical firing, “There’s a normal rise in temperature, in oxidation to 1652°F (900°C). After this temperature is reached, I plug the secondary air intake from spy holes and the primary air intake of the burner to create a totally reducing kiln atmosphere. I allow the gas to pass through low pressure and then I open the chimney. When the gas arrives at the chimney it creates a yellow flame and black smoke (the gas is completely burned). If the kiln is outside, this is generally not a problem. If it is inside it requires a smoke outlet and ventilation.



**Opposite page:** tall vase, low-fire red clay, terra sigillata, refractory engobe resist painting, fired to 1652°F (900°C) in reduction, 2017. **Top left:** Campos’ studio. Front row shows lidded jars in process, ready for engobe patterns to be added. Back row includes finished pots on a shelf in front of the kiln. **Top right:** Wall-mounted landscape, low-fire red clay, terra sigillata, refractory engobe resist painting, fired to 1652°F (900°C) in reduction, 2017. **Above:** Bowl, low-fire red clay, terra sigillata, refractory engobe resist painting, fired to 1652°F (900°C) in reduction, 2017.



1 Apply the refractory slip to a bisque-fired piece coated with terra sigillata. 2 A view of a piece where the refractory slip pattern has been completed. 3 A view of the same piece after a reduction firing. 4 After the reduction firing, use a white kitchen scouring pad to remove the refractory slip. 5 This is how the piece looks after removing the refractory slip. 6 For alternate approaches to creating resist patterns, place pieces of clay on a small slab/plate to resist the carbon. 7 The interaction of the clay shapes and the kiln atmosphere resisted the carbon trap. 8 Remove the pieces of clay after the firing. 9 Once the pieces have been removed, you should see the resist pattern. This creates a halo effect.

In my studio, I have a secondary burner and kiln setup, so that whether outside or inside, the soot and small black pellets of ash that can disturb the neighbors is taken care of. The burned gas from the reduction of the principal kiln (11) is directed into this secondary kiln (12) and, with the help of another burner, an oxidizing atmosphere is created in this second chamber. In this way, the final exhaust from the vent hood above the kiln is clean and free of smoke.

In the primary kiln, the reducing atmosphere is maintained during the cooling, by keeping the burners on and the ports closed as

much as possible as the temperature goes down. This atmosphere is maintained until the temperature reaches 842°F (450°C). Then, the gas is turned off, the chimney is closed, and the kiln is allowed to cool.

#### A Diverse Range of Work

Ricardo has made his living as a ceramic artist in a variety of ways, including teaching, creating a line of Iberic and Roman reproductions for museums, working with an architect to make



10



11



12



13

**10** The kiln Campos uses for all of his bisque firing. **11** The small reduction kiln Campos uses to create a heavy reduction atmosphere. **12** This secondary kiln was created to burn any remaining soot and ash from of the reduction atmosphere in the main kiln before it exhausts to the outside through the vent hood. **13** Front row, lidded jars in process, ready for engobe patterns to be added. Back row: Finished pots on a shelf in front of the kiln.

**RICARDO CAMPOS' REFRACTORY SLIP**

Cone X

|               |       |
|---------------|-------|
| Talc .....    | 30%   |
| Kaolin .....  | 15    |
| Alumina ..... | 25    |
| Silica .....  | 30    |
|               | <hr/> |
|               | 100%  |

ram-pressed lighting fixtures for buildings, and most recently, working on a line of teapots for a store in England and developing a new turquoise matte glaze for functional ware.

**the author** *Lauren Kearns is a professional ceramic artist, teacher, and formerly an Executive Director of what (?). She has assisted students of all ages and abilities in ceramics and continues to be an active and avid promoter of the ceramic arts.*