

Alternative Firing Schedules using Georgies ^6 Oxidation Glazes



Firing is the 'magic' of ceramics. Our clays and glazes are forever changed in the heat work of the kiln. Whether you are firing with fossil fuels in a reducing atmosphere or an electric kiln with an oxidising atmosphere, you are the fire master. Results are variable to many an often subtle changes.

At Georgies we test fire our glazes in Skutt kilns with the cone fire mode on ^6 medium speed with no hold time. We are looking for consistency from one batch to another. As you may be matching or wishing to repeat results of earlier testing.

Currently there is a lot of dialog about longer and extended down-firings. These extended firing schedules with long cooling cycles have many reasons to consider and speculate on their benefit. The electric kiln has done much to revolutionize the pottery field, giving more individuals access to creating work in their home studios. For many of us having a ^10 gas kiln may not be physically or economically possible. Many have pursued the look of that elusive ^10 reduction that they experienced in school, and found a style that has worked.

In examining the the firing schedule or logs of a gas kiln certain patterns begin to emerge. We can compare things other than the atmosphere. First, we note that the kilns used for a gas firing are larger and contain more mass. Second, the physical facts of firing will indicate that the kiln is unable to rapidly climb in temperature past ^6, and generally begins stalling out between ^6-8. The difference in temperature between ^6 and ^10 is about 100 degrees, but in time that equals 2-4 hours! A third factor in this process is that the greater mass of the kiln and pots that fill it holds its heat for a longer period of time and cools at a significantly slower rate.

There is also one other factor of merit in this speculative action and that is the composition of the glaze itself. Several materials will decidedly benefit or simply change with a longer or more varied firing cycle; and in particular the extended cooling rate. The first material is zinc. Zinc is the essential building block of all 'crystalline' glazes. The second is iron. Iron dissolves into the glaze, but has the ability to grow its crystal structure and be suspended in the viscous glaze when slowed in the cooling cycle.

Steven Hill gave a workshop at Georgies in January and much was discussed about his change from a ^10 reduction potter to a ^6 oxidation potter. He was able to achieve the same looks and glaze combinations by fluxing down his glazes and firing in a cycle tha