# Intermediate Raku

#### I. Introduction

In our beginning raku classes, we often compare raku to chess: we can teach you the moves in an afternoon, but you can spend a lifetime mastering the game. The purpose of this flyer is to introduce you to some advanced moves that will expand your color palette and creative possibilities.

#### II. Oxidation vs Reduction

During raku firing, you are balancing or juggling oxidation and reduction atmospheres in both the kiln and the reduction chamber to get the effects you want. Oxidation and reduction are not really polar opposites: they represent more of a continuum. Either color result can be desirable.

## A. Oxidation Atmosphere

"Oxidation" means that oxygen is present in the firing atmosphere. Copper oxides fired in oxidation atmospheres produce shades of green and blue, and also produce metallic flashes and iridescence. Think of a copper or bronze statue standing in the outdoors and weathered by the elements.

### B. Reduction Atmosphere

Oxygen is not present in reduction atmospheres. Reduction atmospheres in raku are rarely completely oxygen-free, but oxygen is present in lesser percentages than in the atmosphere we breathe. Copper oxides fired in reduction produce darker shades, from tomato red through oxblood red to purple. The same metal (copper) changes color in reduction because sustaining the fire requires oxygen. If there is insufficient oxygen in the atmosphere inside the kiln or reduction chamber, the the fire will rip the oxygen it needs out of the metallic oxide in the glaze.

# C. Influencing the Atmosphere

You may not be able to completely control the atmosphere in raku, but you can influence it toward your desired color results. You can induce reduction in either the kiln or the reduction chamber (or both), or promote oxidation before placing pieces in the reduction chamber.

#### (I). Reduction in the Kiln

(a). The first step toward reduction in the kiln is altering the position of the primary air intake, the screw-mounted plate, at the back of the burner.



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Glaze Combination 1 80% PG805 White Crackle 20% PG811 Blue Dolphin



Glaze Combination 2 75% PG805 White Crackle 25% PG802 Copper Flash



Glaze Combination 3 50% PG805 White Crackle 50% PG812 Copper Ridge



Glaze Combination 4 50% PG813 Michigan Patina 50% PG811 Blue Dolphin



**Glaze Combination 5** 75% PG805 White Crackle 25% PG807 Opal Shimmer



**Glaze Combination 6** 50% PG808 Beetle Juice 50% PG811 Blue Dolphin



Glaze Combination 7 75% PG808 Beetle Juice 25% PG811 Blue Dolphin



Glaze Combination 8 50% PG808 Beetle Juice 50% PG812 Copper Ridge

