

Flash Phenomenon

Liz Vukelich*

Faculty: Ted Adler

Department of Art and Design, College of Fine Arts

Purpose: This project explores color development in unglazed, wood-fired ceramic wares, specifically the phenomenon called “flashing,” by testing six materials with differing proportions of silica and alumina. **Background:** Flashing is a gradient of glazing created in atmospheric kilns, and occurs around a ratio of 3.2:1 SiO₂ to AL₂O₃. Other variables that contribute to flashing on ceramic surfaces include the composition of the clay bodies used, the presence of trace amounts of iron, and the type and composition of the clay’s glass-forming components. **Methods:** Sixty-one step tests made from combinations of six raw materials demonstrate the quality of color development near and at the ideal SiO₂: AL₂O₃ ratio for flashing. I will fire and cool these tiles in an anagama-style, wood-fired kiln, using both carbon and hydrogen as an oxygen reducing agent during the cooling process. The results of this study will provide both quantitative and qualitative data to supplement experiential knowledge.