Humanity: The Earth and Art

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Every civilization in the world has used ceramic objects at some time in their history. Clay objects found in early human cave dwellings have been estimated as being 30,000 years old. Unfired clay or clay not hardened by heat processes, was used for representational sculpture depicting animals much like cave paintings. The use of glaze or a glass like coating on functional ware or ceremonial and sacred objects is relatively a recent development, being in use for the past 5,000 years. This comparatively current use of glaze is directly related to human technology and the ability to create fire in varying temperatures. The capacity to fire kilns to higher temperatures made possible the evolution of various glaze types. Glaze is glass that has been specialized to remain stiff and viscous in high temperatures, enabling it to cling to the sometimes vertical walls of ceramic objects. All glaze contains various amounts of clay particles as the agent that allows the glass to adhere to ceramic ware. The glaze type focused on in this research is a high temperature development called slip glaze. Slip glaze is made up mostly or entirely of clay that melts at a high temperature otherwise known as earthenware clay. When some earthenware clays are mixed with water to create a mixture with the thickness of heavy cream and then applied to the surface of a form made of clay that is stupe when fired in a kiln at a high temperature, a glas glaze will result.

The idea central to this research on slip glazes was one of location: the aquatic geo-history of the state of Utah makes it an ideal source of earthenware clay deposits. This former lake bed was the site of erosion and decomposition of igneous rock sources, which is what all natural clay is composed of. Twelve samples of earthenware clay were collected from sites in different alais in the state (Table K). Three samples were eliminated due to undesirable properties in the clay or unavailability of samples large enough to compose a glaze. The samples that remained underwent the processing necessary for glaze testing (Table K). Ceramic bottles made of high stone ware clay, which is clay that will not melt in high temperature, were bisque fired or fired in an electric kiln to allow temperature of 1800°, then dipped into the slip glaze samples and fired in a gas kiln to 2380°F. The results of melted earthen ware clay samples, now glass glaze, were observed for any glaze flaws such as excessive cracking of glaze across the surface of the ceramic bottle or undesirable colors. Five of the samples needed no alteration to their natural chemical make up to be visible and beautiful sources of glaze. The natural composition of the remaining samples was altered to achieve a more desirable glaze in color and surface (Table K). Additional tests were run on all nine samples to research the possibility of expanding further the range of color and surface effects that could be attained with the slip glazes (Table K).

The nine samples of slip glazes tested and altered yielded over 20 beautiful glazes that will be used by this artist in future works, sustaining a tradition that links contemporary humans with the civilizations long past and hopefully traditions that will continue well into the future.