Artifiact

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**Abstract:**
The main purpose of this body of work is to explore gestural mark making and wood kiln effects on functional and sculptural vessels. A limited number of forms, including teapots, cups and large sculptural vessels were made to explore different types of mark making and the different effects that can be achieved in the wood kiln. The end goal was a body of work that can be explored on many levels, from using the pots as functional vessels to exploring the larger work as dynamic gestural sculptures.

**Research:**
The research conducted for this project can be split into two categories: formal exploration of shapes and mark making on the pots, and technical research of kiln firing and materials to create and develop a palette of colors.

**Forms:**
The main forms I chose to explore were small cups, more work intensive teapots, and large sculptural vessels.

**Process:**
Typically, I will start a series of pieces by making cups and then move on to teapots, using the information gained from making the cups to inform the teapots. Wheel thrown cups allow for quick exploration of both hand-marks and kiln effects. As they can be made quickly there is less pressure for each individual pot to end up perfect which allows for exploration both in the making and firing processes. Wheel thrown teapots are comparatively a higher investment form to make. The forms of the two pots, cups and teapots, are highly related. I find that both of these forms are more successful when they have a low center of gravity but retain lift through the foot. My primary means of texturing and altering these pots consists of various stretching techniques. Typically they are made by throwing a thick cylinder and then carving through the outer layer of clay. The pot is then stretched from the inside, which reveals the texture of the clay in interesting and spontaneous ways.

The sculptural vessels allow for more dramatic exploration of texture, marks, and form, as there is no need for the final piece to be immediately functional. The sculptural form is also related to the cup and teapot form, with the weight of the piece sitting in the same zone as that of the functional pots. The decision to make these pieces as vessels lends them a sense of purpose that would not exist were they to be made as pure sculptures. I feel that this encourages the viewer to explore the pieces with more immediacy. The forms are based on archeology, although many
viewers arrive at different conclusions upon exploring the pieces. I am happy with the pieces being read in many ways. Some viewers might examine them as abstract sculptures, while others might see them as gestural flower pots. The marks on the pieces reference the marks of geological erosion and human tooling and reveal the quality of clay underneath. I intend for the pieces to be both abstract and accessible, while carrying a strong sense of movement and time.

**Material Research and Firing:**
The second part of the process, which is equally important to the making of the pots, is the firing process. Most of the cups and teapots are made from a grolleg based porcelain clay body, while the sculptural vessels are made from a dark stoneware. Both of the clay body recipes are modifications of pre-existing recipes that have been adjusted to add texture, strength, and color through the firing process. These recipes were arrived at after an extensive testing stage, where I tested at least 20 different clay bodies. The initial clay testing process involved 3 firings that I conducted during the start of the Covid pandemic. Due to the pandemic, I fired the small test wood kiln solo in an attempt to refine the clay recipes while simultaneously gaining a further understanding of the effects of reduction cooling on the various clay bodies. I attempted to conduct these tests as scientifically as possible by firing as consistently as possible on the “up cycle”, stacking the different clay tests next to each other in both the front, middle, and back of the kiln, firing to the same temperature over the same period of time, and then having the only significant variable be the temperature to which the kiln was reduction cooled to. I fired three test kilns, with the first being a control, with no reduction cool, the second being reduction cooled to 1650, and the last being reduction cooled to 1350. From these firings I gathered subjective information as to the differences between different reduction cooling temperatures, while simultaneously working towards 3 different clay bodies that I later continued to modify, mainly by making them more durable to higher temperature firings. The final firing schedule that I have arrived at, and continue to subtly adjust is informed by the information gained in these test firings, as well as the many firings I have conducted both before and after.

The firing is planned so that both the sculptural body of work and teaware receive desirable effects in the wood kiln. The pieces are primarily fired in USU’s train/anagama hybrid kiln. The firings last for between 50-60 hours followed by a 6-10 hour deliberate reduction cool. The pieces are fired from between pyrometric cone 10 and cone 13, which correlates to above 2250F. Both of the clay bodies used are able to withstand fairly high temperatures, which allows for extensive ash collection, melt and movement in the wood ash, which is a primary surface effect in the kiln. The movement of wood ash and flame on the pieces highlights the forms in ways that a glaze firing arguably could not. The specifics of the firing were arrived at over the course of 30-40 firings over the last 3 years. With each subsequent firing the pots were examined to determine how the next kiln load could be improved. Improvements include significant progress in determining loading strategies, and specific adjustments at the closing and cooling of the kiln.
The firing strategy developed follows. The kiln is fired from start to pyrometric cone 8 in around 24 hours. At cone 8 the kiln is held in a light reducing atmosphere for as long as possible, typically around 16 hours. I consider this to be the “wood ash building stage”, as it is the point at which wood ash sticks most readily to the clay. I also suspect that significant flame or flashing effects are influenced by various factors during this hold. Towards the end of this hold the kiln is pushed up to cone 10-11 and held there for another 8-12 hours to fully melt the ash. During this hold sometimes cones 12+ will drop. Cone 11-12 is the ideal cone for the firing to end at, with cone 13 being a bit too hot and cone 10 being a bit too cold, but the clay bodies used are durable enough to withstand the higher temps, and receive desirable effects from 10-13. Typically I try to end in a neutral to oxidized atmosphere with a very low coal bed. Likewise I try to stop sidestoking at least 24 hours before the firing is done to allow the back ash to melt. These adjustments both help the ash melt and also seem to be instrumental in shifting the color palette from gray/blue to greens and oranges. To finish, the kiln is kept in a neutral atmosphere from peak temps of around 2150-2250 and then cooled in a neutral atmosphere to around 2050F, which takes around 30-45 minutes. The kiln is then put into a reduction atmosphere and cooled to around 1650F. The reduction cooling has a slight, although noticeable effect on the porcelain, but is very important for the dark clays in the kiln. Overall in this firing about 5-7 cords of wood will be burned. Different firing strategies are chosen based on the overall set of clays put in the kiln.

**Conclusion**

The work exhibited in my MFA thesis exhibition titled “Artifact” is a culmination of exploration and experimentation of form, texture, and surface. The goal was to create a body of work that contains dynamic and interesting surfaces and marks for the viewer to explore.