

FORM, SURFACE AND NARRATIVE:

EXPERIMENTS IN SURFACE TREATMENT ON NARRATIVE HAND SIZE SCULPTURES

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DEDICATION

I would like to thank the many talented and generous people, who have offer advice and ideas, and who have inspired me to create my work, in my own way.

ABSTRACT

After creating life-sized sculpture work(s) with a major focus on form and anatomy for my Certificate Exhibit in 2015, I began work on my MFA. I continued working with life-size figurative sculptures, refining my sculpting skills and experimenting with a number of new finishes. The increased detail of the forms combined with the new surface treatments resulted in more interesting work and more intentional storytelling. The results were encouraging but the process was slow.

To speed up the process, I scaled down my sculptures to a hand-held size. These smaller forms allowed me to leverage my background in both puppetry and theater - expanding my storytelling by simplifying the form to be less life-like but more expressive. This gave fuel to further experimentation. To finish these forms, I needed a more flexible and reliable palate of color, texture and sheen that could be used to develop a multi layered surface and a painterly aesthetic.

This led to the rigorous process of experimentation with Terra Sigillata, mason stains, oxides and various finishing washes and slips. The resulting finishes became my surface treatment toolkit and can be seen in my finished work.

This thesis is a presentation and explanation my process with examples of individual finished sculptures.

INTRODUCTION

My research will focus on the exploration of the symbiotic relationship between surface and form in figurative sculpture and the resulting aesthetic and/or narrative impact on the finished piece.

My sculptures are about moments in time, about stories or parts of a story. They are about feelings, things that make me curious or make me wonder. They are things that are hard to express in words.

To this end, I focus on the features of the face, head and upper torso. We read the face in a second and (right or wrong) pass judgement. It is a window to our feelings and intentions and an excellent vehicle of storytelling.

As I work in the clay, it becomes recognizable as a character. The seed of a story begins to emerge. Later in the process, the surface treatment will enhance the form in support of the story, amplifying or obliterating the form, as need be.

Creating a surface treatment that supports the aesthetic and narrative of this work begins in the early stages and is an integral part of my process. Necessary to this task is the development of targeted, reliable ceramic surfaces for my forms, and the creation of a surface treatment toolkit.

MFA BACKGROUND

My background in theater and graphic art has served me well in my work as a sculptor.

In both cases, the point is to capture an idea and translate it into a visual form. In theater, the source of the idea stems from the script as defined by the director. In graphic design the idea is defined by the business strategy or the product team. In my sculptural work, the idea comes from anything - a moment or part of a moment, anything. The choice is mine.

2016 Certificate Exhibit, “Making Faces”

Encouraged by my advisor, Joyce Michaud, to focus on sculpture, I decided to focus my studies on the human form. Being particularly fascinated by the human face, but lacking the skills and technical knowhow, I looked for inspiration in the work of other artists. I found this in the work of Tip Toland.



Figure 1. Tip Toland with her sculpture, African Teen with Albinism, made of stoneware with synthetic hair from her exhibit, “The Persecution of People with Albinism in Tanzania” at the Portland Art Museum Apex Gallery Installation 2013 – 2014.

Artist and teacher, Tip Toland, is recognized for her hyper realistic figurative sculptures as well as her detailed instructional YouTube videos. I used these videos to develop the

modeling technique I used to create the life size sculptures for my certificate exhibit and continue to use today. Supported by a steel armature, I build on a solid mound of clay, paying close attention to the relative sizes of the major masses first, then shaping the smaller forms and details. The solid clay mound is hollowed before firing.

The series of life-size busts shown in my 2016 Certificate Exhibit, “Making Faces” was created with a primary focus on form. They were finished with a treatment of thin oxide washes.



Figure 2. The examples in the image series above show details of three sculptures from the exhibit “Making Faces.” On the left is a 470-stoneware sculpture fired with no additional surface treatment than the clay itself. In the middle is a sculpture made from 112 stoneware treated with a rutile wash and decorated with manganese oxide to create a tattoo-like effect. The image on the right is a Red Rock stoneware sculpture painted with iron oxide wash.

The Seed of Narrative

Although I was approaching my work as a series of busts (figure studies), some of the pieces seemed to reflect moments of my everyday life. Examples of this can be seen in the images below.



Figure 3. "Gollum" from my 2015 Certificate Exhibit at Hood Collage.

The piece that I refer to as "Gollum" was supposed to be a baby. On the first day of working on this piece, I created the shape of the face, I roughed out the position of the major features, eyes, nose, mouth and ears. On the morning of the next day, I continued working on the sculpture. I wasn't feeling well and got worse as the day progressed. At last, I gave up and went to bed. Two days later I returned to my studio. I was surprised to find that my "baby" had become "Gollum" – reflecting my feelings at the time of its making.



Figure 4. This shows the two versions of the sculpture, "Acceptance" on the night before surgery and the result after alterations the morning of surgery.

Similarly, the second bust, shown in the image above was made in the days before I was to undergo surgery for thyroid cancer. I had originally conceived of the piece as a display of courage. It had an almost "superhero" look. The exaggerated facial features – the lips, arched eyebrows and jutting chin reflect my intention. The morning of the surgery, I woke early and altered the sculpture into its present form – a more peaceful look – a wonderful reflection of my feelings that morning. After surgery, I applied the surface treatment. The oxide flower decoration stopped at the throat – a symbol of my malady and acceptance of my fate.



Figure 5. The self-portrait, "Courage" decorated with iron oxide washes, awakened my interest in narrative and the importance surface treatment.

Of all of the sculptures in my Certificate Exhibit, one was notably different than the others, my self-portrait, "Courage". Here the surface treatment was much more than a thin oxide wash. Unlike the other pieces, this piece was scored to accentuate the volumes and features of the face and accented by a thick red iron oxide wash. The resulting surface heightened the impact and narrative of the piece.

These examples awakened my interest in narrative and the importance of the form/surface relationship in supporting or creating narrative.

PHASE 1: FORM, SURFACE AND NARRATIVE

Form and Narrative

After my exhibit, my interest expanded to the stylized and narrative sculptures of Beth Cavener Stichter, Marisol Escobar, Thaddeus Erdhale and Sunkoo Yuh. I found here a goldmine of inspiration in not only form and in surface treatment but also the power of narrative sculpture.

My background as a puppet maker/puppeteer and scenic artist was also a great influence. In my early 20's I had worked as a puppet maker and puppeteer at the Cottage Theater in New York City's Central Park. Later, after moving to Europe, I worked as a Scenic Artist at the Danish Royal Theater (Det Kongelige Teater) in Copenhagen Denmark. There I made masks, props and painted backdrops and sets for major operas, ballets and dramas. Despite the differences between theater and ceramic sculpture, the focus of the work is very much the same: combining creativity and craftsmanship to give form to an object that supports a specific storyline.

Working on realistic life-sized narrative busts, I continued refining my sculpting skills, understanding of the human form, and its impact on the narrative in my sculptures.

Unlike my work in theater, where I worked on a predefined storyline, the narrative was of my own choosing, and became an increasingly large part of my creative process.

The examples below illustrate some of my methods, thoughts and processes.



Figure 6. A preliminary drawing is shown on the left. The ceramic sculpture, "Corey Unbroken" is shown on the right.

"Corey Unbroken"

This sculpture is a portrait of a fellow Hood student, Corey Schultz. At the time, I began working on this piece, part of Corey's creative process was the act of breaking his work just as he finished it. I was intrigued by this and felt it was a strong, though somewhat confusing, statement.

My process began with a series of sketches, culminating in the creation of a life size bust, shown in figure 6. My intention was to create a finished life-size realistic portrait of Corey and then break the sculpture upon completion. In this way, I was hoping to better understand that part of Corey's process. Instead, I chose to exhibit the sculpture unfired. Why? Because a sculpture of dry unfired clay is at its most vulnerable state where the potential for breakage is at its highest. In my mind, the potential for destruction creates a tension that is equally great, if not greater than destruction itself.

Spring 2020: The Spring That Never Was

I began working on this sculpture in the early spring of 2020 before COVID19 reached pandemic proportions. At that time, the first tiny buds were just beginning to break through the cold soil. My intention was to express the powerful change from winter to spring. I chose a masculine form to represent the earth with root-like shoulders and tiny holes on the head and back depicting the sources of the spring growth. With the pandemic lockdown came an end of that "feeling of spring" and I left this sculpture as a memory of the spring that never was.

The picture series in figure 7 illustrates the stages my creation process, starting with a mounded form (top) and progresses through the addition of anatomical and metaphorical details and textures to aid in the expression of narrative.



Figure 7. The "Spring 2020: The Spring That Never Was" sculpture is pictured here in various stages of development.

Surface Treatment and Narrative

While continuing my experiments with form, I began to consider more advanced ceramic surfaces, application methods and how they might relate to narrative. I began by seeking visual inspiration – and found it everywhere. I am particularly drawn to the harmony of natural colors and multi layered surfaces of well-worn materials that have stood the test of time. Examples of these types of surfaces are pictured in figure 8.

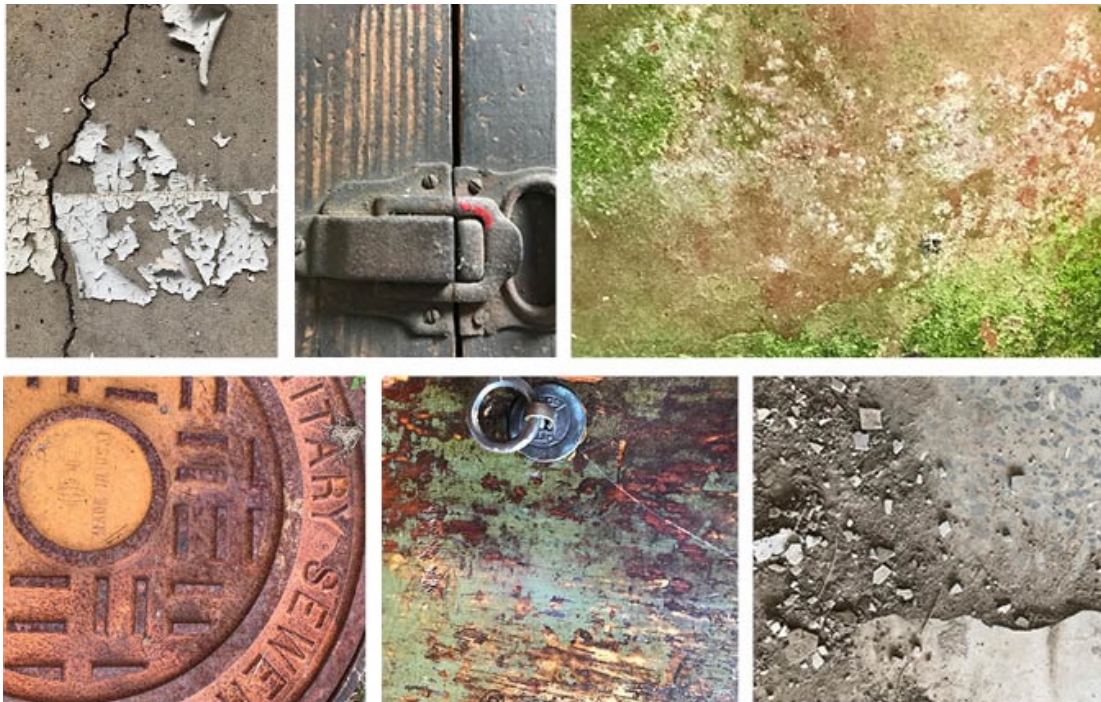


Figure 8. Various examples of multi-layered surfaces are found within walking distance of my home. Pictured here are layers of flaking paint, chartreuse clouds of moss on a terracotta pot, the soft verdigris of oxidized copper, shades of ochre and burnt sienna of rusting iron and the cracked white and soft grays of painted pavement left to age unattended.

My interest in these surfaces goes beyond their obvious beauty. They each have their own narrative that is universally understood. They are the physical representation of

change. In a narrative sculpture, they can be used symbolically to suggest the passage of time (age, decay, wisdom) or a complicated, perhaps unexplainable story.

The layers, intermittent, cracked, opaque in some places and translucent in others, are reminiscent of the surfaces used by many figurative sculptors. Christina Cordova, Sunkoo Yuh and Thaddeus Erdhale, for example, use layers of slips and engobes as well as colors made from oxide washes, underglazes, and glazes to achieve a similar layered look as seen in figure 9 below.



Figure 9. The sculptures pictured above are by Thaddeus Erdhale (left) and Christina Cordova (right).

The Multilayered Surface

Motivated by the beauty of these surfaces and my experience of working with multilayered surfaces as a painter, scenic artist and puppet maker, I wanted to recreate this aesthetic on my ceramic sculptures. I would need a base layer, a texture layer, color layers and modification layers. Each layer should be capable of working independently or in combination with other layers to impact color, value, sheen and texture.

I realized that the unique aspects of ceramics, the carving and stamping of texture into the clay, could be exaggerated by the directed movement of layers of slips and colors over the surface and amplified by crackle glaze(s). I began to experiment with these elements of multi-layered surface treatments: layered slips, underglazes, oxides and thinned flux washes.

Individual Layers

The clay of the sculpture itself functions as a foundation and first layer. The next layer is a texture layer created in the clay itself and/or added in the form of a crackle slip. The crackle slip is painted on to leather-hard sculptures, particularly in textured areas. Thicker slip creates deeper and more numerous cracks.

The next layer functions as base for additional color applications. This is a layer of black earthenware slip. It can be painted or sprayed to cover completely or sporadically in patches. An additional base layer (a white slip or engobe) can be sprayed, painted or

dripped to cover in complete or intermittent layers. This allows previous layers to show through. Sprayed at a forty-five-degree angle, the slip will mimic a light source hitting the sculpture. Figure 10 shows three figures sculpted in Red Rock earthenware finished with this type of surface treatment.



Figure 10. Sculptures shown here are examples of intermittent application of dripped and spattered basecoat layers.

Color washes can be applied with water or mixed with clay slip to provide depth, create an appropriate color story or support the intended mood. The effect of any of these layers can be increased with a spray or spatter of water as used in watercolor painting techniques. Care should be used here as too much water can affect the strength of the unfired sculpture.

A thin Flux wash, translucent and colorless, can be applied to change the sheen of the surface and the tone as well as the saturation of the underlying color layers.

Results

The examples below show how this multi-layered surface treatment can be used to successfully support the form and narrative of the sculpture.

“Thoughts and Prayers”

Returning to the United States in 2012 after 30 years out of the country, I was surprised and saddened by the many mass shootings taking place at that time, and by the complacency of the American public. “Thoughts and Prayers” was my reaction to both.

To represent the split in the views of the American people, I made a sculpture with a dual interpretation. Eyes closed, subtly cracked porcelain skin, blue hair full of holes, and color dripping from the eyes and mouth, “Thoughts and Prayers” can be seen either as a woman in prayer, weeping or as an unfortunate victim of gun violence.



Figure 11. “Thoughts and Prayers” can be seen as either a woman in prayer or as an unfortunate victim of gun violence.

“The Pawn”

The theme of this sculpture is exploitation. Though not the most important player on the chess board, the pawn is crucial to the game. It is promoted, sacrificed, or used as a strategic obstruction. The strength of the pawn is that it is expendable and easily sacrificed for the sake of the win.

The surface treatment is simple – the pattern of the chess board in juxtaposition with the weathered face of the expendable pawn. The pawn wears the chess board as a hat. The checkered pattern of bare red clay and basecoat gray rolls off the board and down his face and beyond, an illustration of the idea that the pawn is not just a piece in a game. For the pawn, the game is all there is.



Figure 12. “The Pawn” is a sculpture about the role of the pawn in the game of chess, and in life.

“Maria 2017”

Two weeks after hurricane Irma, one and a half million Puerto Ricans were still without power. Tropical storm Maria was increasing in intensity, taking aim at Puerto Rico. I was in Frederick, MD pulling clay from the bag. I worked as the storm bore down on the island, listening to the weather report and warnings from the authorities.

As the storm approached, I imagined myself in the path of the storm, waiting and hoping, getting ready. I imagined the calming face of a mother shielding her children from fear. I imagined her hair, full of wind and water, and tied back from her face by a single strand. I finished her eyes shiny and clear, the blue of her hair flowing down her neck and shoulders seeping into the cracks of her skin, encompassed by the storm yet holding steady. I finished her as hurricane made landfall. Hurricane Maria is regarded as the deadliest storm of the hyperactive 2017 Atlantic hurricane season.



Figure 13. The sculpture, “Maria 2017” is an expression of my thoughts regarding the landfall of Hurricane Maria and its effects on the people of Puerto Rico.

“The Ent”

The Ent, is introduced by J. R. R. Tolkien in “the Lord of the Rings” as caretakers, ancient shepherds of the forest whose job it is to guard and defend the trees. They share many characteristics of trees. Ents are patient and cautious, with a sense of time more suited to trees than to humans. To humans, their patience is infuriating and are a reminder of the importance the timing between action and reaction. They grow more treelike as they age.



Figure 14. “The Ent” is a tribute of my favorite character in Tolkien’s book, the Lord of the Rings.

This sculpture is my least realistic figure. He embodies the tree with the trunks emerging from his head and the roots seeming to emerge from his chin. He is lightly colored with greens and blues that compliment his earthy brown, suggesting new growth. His lips and eyes carry just enough color to suggest a human quality.

Summary

The works exhibited from this phase show the possibilities of the techniques with which I was experimenting. They yielded some good results. The process, however was very slow and the risk of failure was great and the results were inconsistent.

One such inconsistency is illustrated in the different surface effect resulting from application on bone-dry sculptures and leather-hard clay. An example of this is seen in the close-up images below of face of “The Ent” and “Thoughts and Prayers”.



Figure 15. Surface treatment application on leather-hard sculptures (left) result in a different surface effect than application on bone-dry clay (right).

These pieces used the exact same materials and application process – and show the unpredictability of the process. This pointed to the need to find a better understanding of the materials and application process.

PHASE 2: EXPANDING NARRATIVE POSSIBILITIES

Hand-Size Sculptures

I made the decision to explore making smaller pieces for two reasons – narrative and economy.

On the narrative front, small pieces allow me to leverage my background in both puppetry and theater - expanding my storytelling by simplifying the form to be smaller, less realistic and more expressive. These sculptures were easy to manipulate into my narrative. Much like puppets, I was free to exaggerate, "costume" them and arrange them in vignettes.

Within these vignettes, I was able to experiment with “null” space. When you're working in theater, one thing you count on is the audience's "willing suspension of disbelief". This can also happen with an audience at an art exhibit. When you take a slight departure from reality and the viewer buys into it, they are doing the same thing ... allowing you to take them somewhere else (which may be inside their own imagination).

An example, shown in figure 16, is a narrative in three pieces - head, hands and life preserver. It's a good example of storytelling told in form. The viewer discards the

expectation of seeing every part of the whole body, because there are enough parts to tell the story. Having elbows connected to the torso or arms to the hands doesn't make the story better, on the contrary it invites the viewer to use their imagination.



Figure 16. Various examples show the narrative power of hand-size sculptures.

By delivering the forms into the world of the storytelling of theater, I also granted myself more leeway in the use of surface treatment.

From an economical perspective, "working small" makes the cost of experimentation significantly less than when working with life-size sculptures. Using these smaller pieces as "test tiles" allowed more freedom to explore and experiment. I was able to continue testing various surface treatments, with a "less expensive" more interesting result.

Small Sized Sculpture Galleries

The following galleries show several works in progress and (in some cases) the potential for narrative through “vignette” (an assembly of pieces). Some of the pieces are full head studies while others are masks, both drawing from my days as puppeteer. I continue to leverage my prior experience in theater which continues to be rewarding source of creativity and expression.



Figure 17. Gallery #1 shows more examples of hand-size sculptures

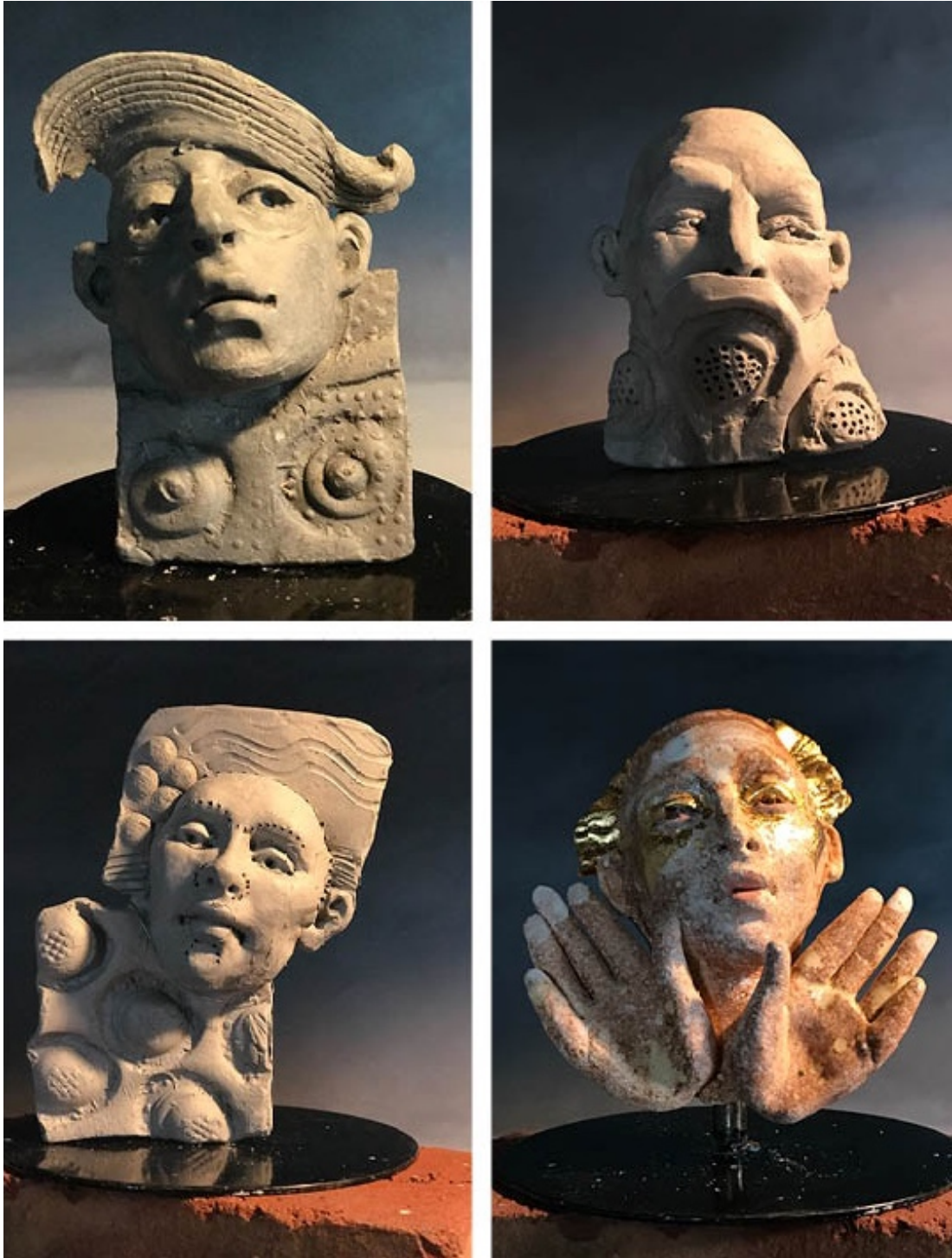


Figure 18. Gallery #2 shows more examples of hand-size sculptures.



Figure 19. Gallery #3 shows more examples of hand-size sculptures.



Figure 20. Gallery #4 shows more examples of hand-size sculptures.

Surface Application Methods



Figure 21. Hand-size sculpture with finished with surface treatment.

Shown here is the surface application process for the small sculptures described on page 23, and seen in figure 22.

A layer of crackle slip is applied to the leather-hard sculptures,

layers of dark clay slip and white engobe are painted, sprayed and/or spattered on and then colored with various underglazes. The underglaze, used alone or mixed with clay slips, can be used to adjust color and/or tint. Flux wash (regardless of age) is applied as a final coat.

After a cone 06 bisque fire, finer details such as eyes, lips and hair are added with underglaze and any further adjustments can be made by spraying, painting, spattering and sponging with clay slip, oxide wash or underglaze and fired again at cone 06.

Example: The Green Lady



Figure 22. "Mother Spring" is shown here at various stages of completion.

The image series above shows "Mother Spring" at three stages: 1) leather-hard 2) after first fire and 3) finished sculpture. The surface treatment was applied according to the following method: The crackle slip was applied to the leather-hard Buff stoneware sculpture and sprayed intermittently with dark and light slips. When the sculpture was dry, it was colorized with spray and drip of chartreuse underglaze and bisque fired at cone 06. The hair was sprayed with water and avocado underglaze and encouraged to drip. The lips painted with pink underglaze. A spray of white underglaze was applied at sharp angle on face with drips of avocado and chartreuse. A layer of Flux wash (5 days old) was painted/splashed on the whole sculpture which was then fired at cone 05 on a clay catch tray.

Summary

This branch of exploration yielded beautiful results from an artistic perspective. In addition, there were several interesting technical findings:

1) The hand-size sculptures painted with crackle slip gave unexpected results due to the

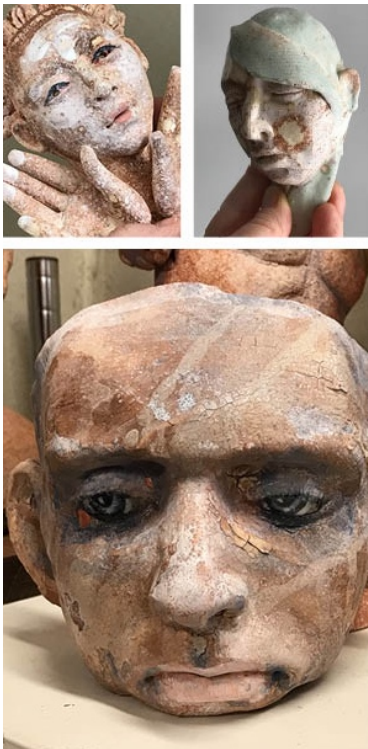


Figure 23. Shown here, a comparison of surface treatment results on hand-size sculptures (above left and right) versus a full-size sculpture (below).

reaction of the slip on the fine details of the sculptures. In theory, cracks would correspond to the underlying form and texture of the sculpture, but with these smaller sculptures the end result was that cracks did not follow the underlying form because the finer details of the sculptures were too small.

2) Spraying with water to achieve softer edges (a typical watercolor technique) also became a challenge as the amount of water necessary could easily saturate the smaller sculptures and weaken the structural integrity of the clay.

4) The Flux wash gave unpredictable yet interesting results. This was due to its short shelf life (two weeks) and its tendency to crystalize as it ages.

PHASE 3: EXPANDING SURFACE TREATMENT POSSIBILITIES

In the first two phases of my work, I was creating narrative sculptures of different two scales and experimenting with layered finishes. On the small sculptures, there were good but limited possibilities (as compared to the results for life size sculptures.)

An expansion of the surface treatment possibilities seemed the logical next step. I chose a more “painterly” aesthetic so that I could leverage my background in painting and puppet making. To this end I needed to develop a broader and more flexible palette that would also work well with the small details of the hand-size sculptures. I decided that Terra Sigillata tinted with Mason Stains and/or oxides might do the trick.

Testing

I began a series of tests to develop my theory: that a tinted layer of Terra Sigillata could be used as a base and if necessary modified to achieve various textures and sheens that worked well with the fine details of the smaller sculptures. If so, the result would be an easily adaptable surface treatment toolkit for my small and large figurative sculptures – one that could be modified (without remixing colors) by using additive layers.

This testing, illustrated in figure 24, is a two-part process. Part one testing is on test-tiles. The results of part one are further explored in part two, on maquettes.

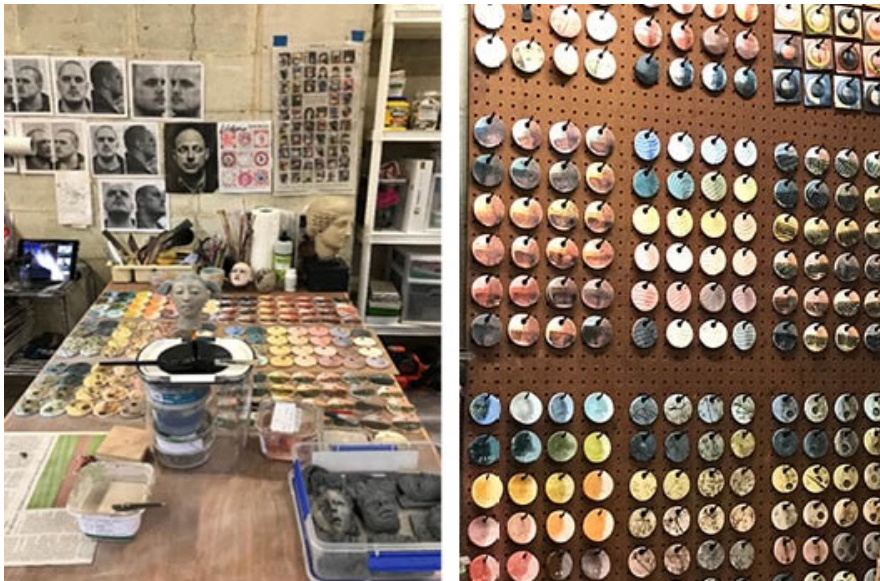


Figure 24. The image above illustrates the two parts of the testing process. On the left, a small sculpture (maquette) is being readied for surface treatment application. On the right, an array of test tiles hangs on the studio wall to be used as reference.

Part 1: Testing with Tiles

The fine particles of the Terra Sigillata create a smooth velvety surface that follows the contours of the form without obscuring any of the fine details. It can replace or be used in addition to a crackle slip layer. In combination with Mason Stains and Oxide washes as colorants, the Terra Sigillata should be applied to the test tile in thin layers. The oxide washes can also be applied in subsequent layers as color modifiers.

Since irregularities are common in figurative sculpture, it was important to test how a surface treatment would behave on irregularities in order to learn how best to exploit them. The tiles used in all experiments were textured in order to gauge the impact of the surface treatment on an irregular surface.

TA Teal	PECK Peacock	CHART Chartreuse	ARO Alpine Rose	CRR4t Coral Red	BBW SKB&TA	BLK Black
SG Sage Grey	PECK1t Peacock Lt	TY4t Titanium Yellow	GAM Golden Ambrosia	CRR Coral Red lt	BBW TA	WT White
SKB1t Sky Blue lt	AVO Avacado	TY Titanium Yellow	TA4t Tangerine	ALMP Alumina Pink	WBR Woodland Brown	RTS Rigs Terra Sig
SKB Sky Blue	REB Robins Egg Blue	VY Vanadium Yellow	TA Tangerine	BBW Blackberry Wine	WBR1t Woodland Brown lt	BBW SKB

Figure 25. This chart shows the organization of the test tiles based on color and can be used as a key for color name, abbreviation and intensity.

The colors used in all of the tests are shown in in figure 25. They were used in a combination with Rigs Terra Sigillata to create the base layer used in all of the following tests. This combination will be referred to as “RTS/Mason Stain base.”

In the experiments, I incorporated some trials of color intensity by changing the concentration of Mason Stain in the RTS. While I used a standard concentration of three (3) teaspoons of Mason Stain per unit volume of Terra Sigillata, the above diagram for the color may include a “1t” or “4t” suffix indicating a lower or higher concentration of Mason Stain (one teaspoon less or more respectively).

Example: Test #9

This test has provided the most interesting color combinations and the best result of effects of various oxides on specific colors as seen in figures 26 and 27. This test also shows effects of Flux wash on the colors of the RTS/ Mason Stain base vs Flux wash on the RTS/Mason Stain base with oxides.

Description: Test #9

The RTS/Mason Stain base colors were applied to 24 tiles, 3 colors on each tile, the boundaries of which were scratched down into the clay. Colors were chosen by eye, with one color on each tile following the color palette shown in the chart above. On the right-hand side of each tile various oxide washes were applied by row: Black Copper Oxide, Copper Carbonate, Rutile, Red Iron Oxide, and Cobalt Oxide. The tiles were fired

at cone 06. A Flux wash (3 days old) was applied on the bottom of each tile and fired at cone 06.

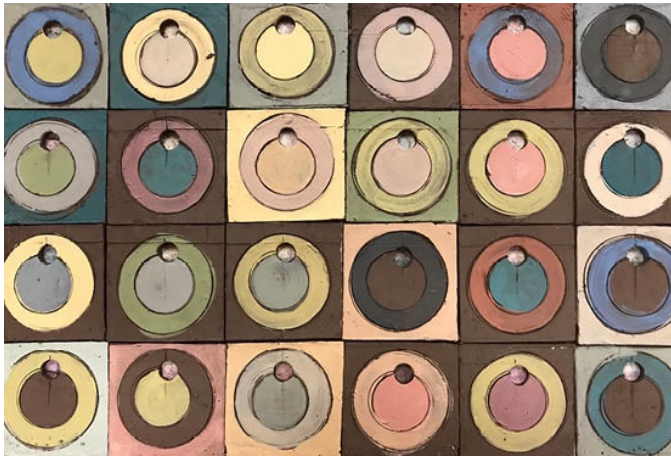


Figure 26 This image shown the first layer of application.



Figure 27 This image shows the addition of second and third layers and the results after the final firing

Complete documentation for all tests can be found in the Appendix on page 49.

Part 2: Testing on Maquettes

A maquette is a scale model or preliminary sketch of a sculpture used to visualize, test forms or ideas without incurring the expense or effort of producing a full-scale model.

A maquette can also be used to test surface treatment application methods. The following segment describes three examples the step-by-step process of using hand-size sculptures as surface treatment maquettes to test the results of the palate of colors, textures, and sheens derived from testing described in the previous section.

Example: “Summer 2020”

The image series in figure 28 shows the application of test results on “Summer 2020,” a sculpture inspired by the heat of August and the pandemic of 2020. Description: With hair of nesting hummingbirds and dragonflies, “Summer 2020” closes her eyes in the summer heat of 2020.



Figure 28. Shown here are four steps in surface application based on test #9.

1) The first picture in this series shows the leather-hard sculpture with hairdo of hummingbirds and dragonflies ready for decoration. 2) The second image shows RTS/

Mason Stain color palate available in test #9 as well as illustrations and sketchbook notes. 3) The third image shows the color application in progress. 4) The fourth image shows the sculpture after the first firing, ready for an Oxide and Flux wash. 5) The sculpture is finished with a glaze wash that darkens the colors under a satin finish.

Example: “Old Woman”

The image series in figure 29 shows the application of test results on “the Old Woman,” a self-portrait inspired by the days of COVID pandemic, when the degree of your isolation was determined by age, health and the per capita death rate.



Figure 29. Shown here are five steps in surface application based on test #9.

The first image shows raw sculpture after the first application of the RTS/ Mason Stain layers. The second image shows the final color choice before firing. The third image shows the sculpture after bisque. The fourth image shows the application of the rutile oxide wash before the second firing. The fifth image shows the final result.

Example: “COVID Queen”

The image series below shows three stages in the application of surface treatment on “COVID Queen” a bas relief inspired by the news reports of New York bowing down to COVID in the spring of 2020. The texture and surface treatment is inspired by the tiles in experiment #2. The flowers in the crown are symbolic of the illustrations of COVID spikes that were used to explain the virus.

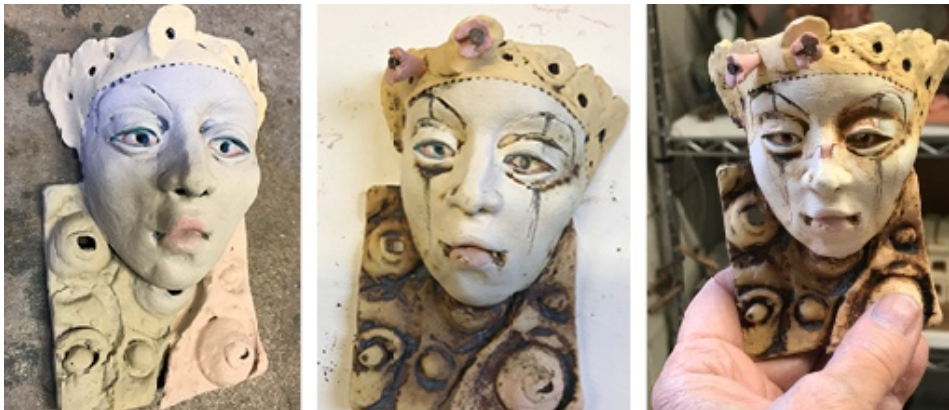


Figure 30. Shown here are examples of surface application on textures used in test #2 using the palette developed in test #9.

The first image shows the first coat of color: crown – TY4t, face – RTS, lips – CRR, Clothing – VNY and TA, eyes – PEDK1t, COVID spikes in crown – CRR (these color abbreviations are expanded in the complete test Appendix). The second image shows the sculpture after the first fire. The third image shows the sculpture with a final surface treatment of black copper oxide wash after the second fire.

Results: The surface treatment toolkit

The surface treatment toolkit is comprised of the color palate of the Terra Sigillata tinted with Mason Stain, various slips, oxide washes, underglazes and the flux wash that worked best in the creation of a flexible, multi-layer surface treatment for my small and large figurative sculptures.

All of the materials in this toolkit can be allowed to dry for storage and reconstituted with water for later use, with the exception of the flux wash that has a limited shelf life. This is particularly interesting, as my studio is not heated in the winter.

Summary

The sculptures displayed in the exhibit poster, figure 31, demonstrate the wide variety of possible finished surface treatments resulting from tests and experiments, and applied to a number of hand-sized narrative sculptures. These and other sculptures were exhibited in my MFA exhibition in the Tatem Arts Center at Hood College, November 9-19, 2021.



Figure 31 Images of selected finished sculptures are show here in the MFA final exhibit poster.

PHASE 4: EXHIBITION

Exhibiting Narrative sculptures

The inspiration for a narrative sculpture can come from anywhere. My sculptures stem from feelings, from things that make me curious, that cause me to wonder or worry.

They are the things that are hard to express with words. For me, they are more easily translated into form and surface. The forms of sculpture tell the story which is then amplified or complimented by surface treatment.

Whether or not my sculpture reveals my personal inner dialogue or narrative is not of utmost importance to me. Also important is the experience of the viewer and the conversations that are spurred by that experience. The viewers will have their own feelings, and interpretation of the work based on their particular life history and point of view. If, in my work, the viewer can see something that they can relate to, a part of themselves, part of a moment that is familiar, and, if that starts a conversation - then the communication is complete. That is the fascinating thing about narrative sculpture, and why the exhibition is the final step in its creation.

MFA EXHIBIT: NEW SCULPTURE BY LESLIE KING

The main body of sculpture work for this exhibition began in the late winter of 2020 when the COVID pandemic was still isolated in China, and continued until the opening of the exhibition in the Tatem Arts Center at Hood College on November 9, 2021. In that period of almost two years I created sixty small sculptures based on my thoughts, feelings and experiences at that time. They are by no means meant to be a conclusive documentation, but more, an invitation to look at, remember and share the experience of living through that extraordinary period in our history.

It has been an honor to show my work and share the experience of its making. The small crowd at the opening reception of this exhibit, the first in-person reception at Hood since the beginning of the pandemic, participated in my artist talk with questions and comments. The conversations that continued in small groups were both about the sculptures themselves as well as our shared experience of the pandemic.

Image Gallery of Sculptures on Exhibit



Figure 32. Pictured from left to right: Amanda Gorman, *Say His Name*, *Daærgen fra Nidavellir*.



Figure 33. Pictured from left to right: *Lockdown*, *Zucked*, *Eve and the Patriarchy*.



Figure 34. Pictured here: *The Year Without Seasons*.



Figure 35. Pictured from left to right: *Empathy, Thoughts and Prayers*.



Figure 36. Pictured from left to right: *Alfern fra Alfheim, Pandemic, The Color of Hope*.



Figure 37. Pictured from left to right: *Self Portrait, The Curmudgeon, Lilly*.

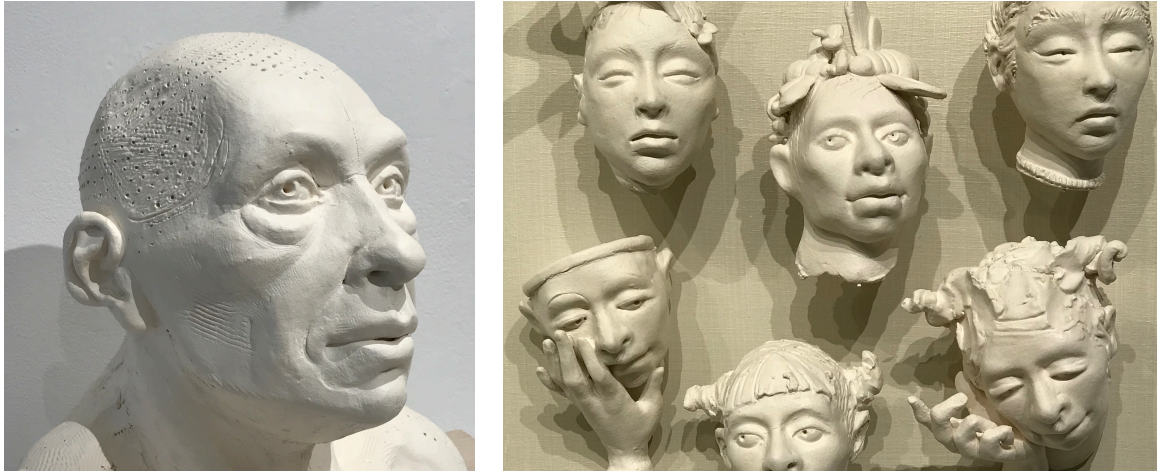


Figure 38. Pictured from left to right: *Father Earth*, *Ghosts*.



Figure 39. Pictured from left to right: *COVID Queen*, *Mask Mandate*, *Brothers*.

Image Gallery of MFA Exhibit



Figure 40. Images of MFA exhibit on opening day.



Figure 41. Images from MFA exhibit opening reception.

APPENDIX

Testing Documentation

The colors used in all of the following tests are shown in figure 32. They were used in a combination with Rigs Terra Sigillata to create the base layer used in all of the following tests and referred to as “RTS/Mason Stain base.”

TA Teal	PECK Peacock	CHART Chartreuse	ARO Alpine Rose	CRR4t Coral Red	BBW SKB&TA	BLK Black
SG Sage Grey	PECK1t Peacock It	TY4t Titanium Yellow	GAM Golden Ambrosia	CRR Coral Red It	BBW TA	WT White
SKB1t Sky Blue It	AVO Avacado	TY Titanium Yellow	TA4t Tangerine	ALMP Alumina Pink	WBR Woodland Brown	RTS Rigs Terra Sig
SKB Sky Blue	REB Robins Egg Blue	VY Vanadium Yellow	TA Tangerine	BBW Blackberry Wine	WBR1t Woodland Brown It	BBW SKB

Figure 42. This chart shows the organization of the test tiles based on color and can be used as a key for color name, abbreviation and intensity.

In the experiments, I incorporated some trials of color intensity by changing the concentration of Mason Stain in the RTS. While I used a standard concentration of three (3) teaspoons of Mason Stain per unit volume of Terra Sigillata, the above diagram for

the color may include a “1t” or “4t” suffix indicating a lower or higher concentration of Mason Stain (one teaspoon less or more respectively).

Rigs Terra Sigillata (RTS) Cone 04 – Cone 03

Water 10 pounds

Sodium silicate 1 teaspoon

Soda ash 1 teaspoon

XX Sager 5 pounds

Mix ingredients. Wait 1 day. Extract “middle” 1.5 gallons from set mixture.

This is a typical Terra Sigillata.

There are minor differences between this recipe (in the silicate/ash ratio) and Pete Pinnell’s recipe, “Lip Smackin’ Smooth Terra Sig” (Cone 04):

Lip Smackin’ Smooth Terra Sig (Cone 04)

Water 28 pounds

Sodium silicate 2 teaspoons

Soda ash 3 teaspoons

XX Sager 14 pounds (Newman Red and Cedar Red as alternatives)

1: RTS/Mason Stain base with (1 day) Flux Wash



Figure 43. Test tiles from Experiment #1.

White earthenware test tiles (28) were treated with the RTS/ Mason Stain base (labeled by color). The white earthenware selected was 80800 Super White, a low fire earthenware with a temperature range of Cone 06 – Cone 02. The earthenware was leather hard when the RTS/ Mason Stain base layer was applied and burnished.

It was then bisque fired at Cone 06. When removed from kiln, these bisque tiles were treated as follows: one half received no additional treatment, while the other half was bisected and treated with a thin layer of Flux wash (one day old). A partial layer of Flux wash was applied to test the result of differences in wash thickness. The tiles were fired a second time at Cone 05.

Flux Wash:

Soda ash ½ cup

Borax ½ cup

Gertsley borate 1/8 teaspoon

Water 4 cups

Results and Observations

- 1) This experiment explores the RTS/ Mason Stain base as well as the impact of Flux wash relative to the thickness of application.
- 2) The Flux wash has a distinct yellow tinge that works well on yellows, oranges, greens and greenish blues but not on the blues and purples because it distorted the tint of these colors.
- 3) The thin layer of Flux wash results in a more saturated color with a darker value in the yellows, greens, oranges and greenish blues and gave an eggshell gloss. The thicker wash reacted differently depending the color of Mason Stain used.
- 4) Color change depended on thickness of Flux wash and color.

2: RTS/Mason Stain base with Black Copper Oxide Wash



Figure 44. Test tiles from experiment #2.

Due to issues with burnishing in Experiment 1, I attempted to improve on results of burnishing by drying the tiles to bone dry before the application of the RTS/Mason Stain base. The tiles were burnished with plastic after each layer applied, immediately after the “shine” disappeared. This gave a much better result. The first fire was the same as the prior experiment.

When removed from the kiln, the tiles were treated by painting with black copper oxide wash (water plus black copper oxide). When dry, some but not all of the powdery residue was brushed off (into a water bath to capture particles.) Selected tiles* were wiped with a cloth to remove more copper oxide on one side of the tile (to allow the

original color of the Mason Stain to show.) * SKB1t, SKB, REB, TY4t, TY, VNY, TA4t, TA, CRR, ALM, WT and WBR + SKB. The tiles were fired a second time at Cone 04.

Results and Observations

1) This experiment explores the impact of using a black copper oxide wash. The effects are evident on the edges of most tiles (see REB, TA, GAM, PECK1t, BLK).

2) Color of the wash is generally dark brown to black depending on wash thickness and underlying Mason Stain color.

3) Where the wash remained thick, the result gave a slightly metallic sheen (though not as noticeable as in Test #3 with red copper oxide + Gertsly Borate wash).

4) Where the black copper oxide was brushed off with a stiff-haired paintbrush, there was evidence of brush strokes and individual particles of black copper oxide – a beautiful effect.

5) On the edge of many test tiles, the RTS/ Mason Stain base chipped off during firing.

Additional Research revealed the answer to the chipping problem at

LindaArbuckle.com/handouts/majolica-handout.pdf (page four of nine) “Pete Pinnell’s

Real Authentic Lip-Smackin’ Smooth Easy Terra Sigillata”. I was putting the Terra

Sigillata on too thickly!

3: RTS/ Mason Stain base with Red Copper Oxide/Gertsley Borate Wash

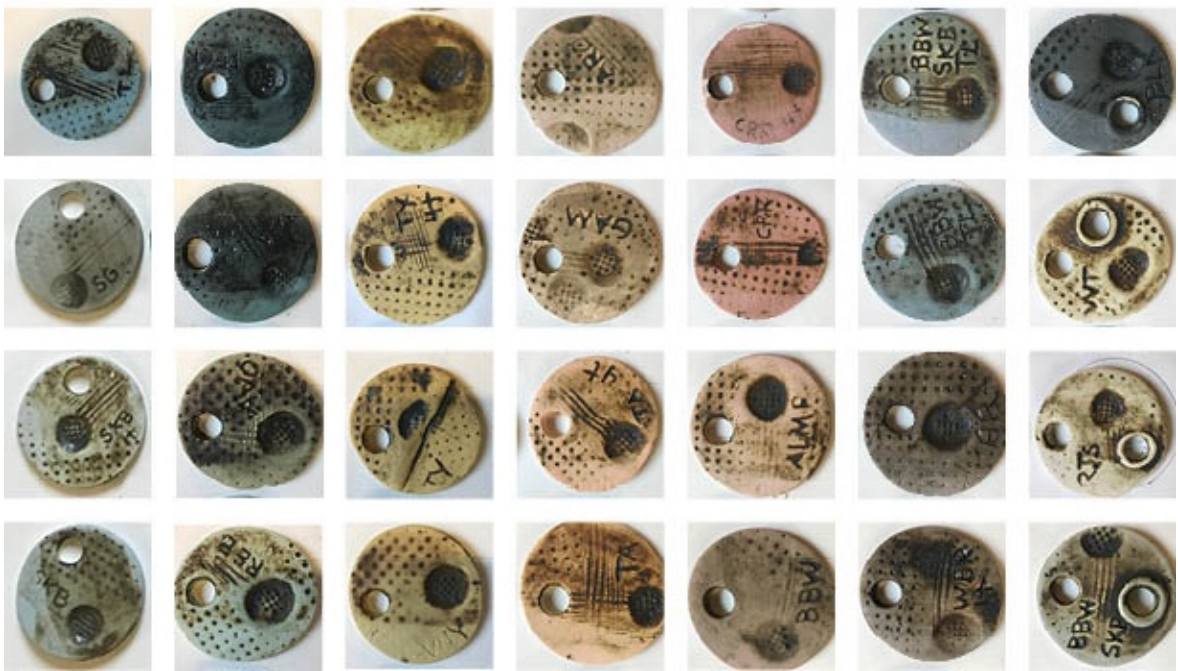


Figure 45. Test tiles from experiment #3.

As in Experiments 1 and 2, I used the same tile type, color selection and layout. The bone-dry test tiles were painted with three coats of the RTS/ base to avoid the chipping seen in prior tests due to thickness, then burnished with a round throwing sponge. The first fire (slight variation from previous tests) was at Cone 08.

Red Copper Oxide/Gertsley Borate Wash

Red Copper Oxide 2 teaspoons

Gertsley Borate 2 teaspoons

Water

When cool, the tiles were painted with a Red Copper Oxide/Gertsley Borate Wash.

When the wash was mixed, the water seemed repelled by the oxide and Gertsley Borate. Despite ample stirring with a paintbrush, the powder continued to repel water. Nevertheless, the mixture was easily spreadable on the tiles.

The Red Copper Oxide wash was applied to the tiles on only two thirds of the right of the tile to allow the original color to show. When the Red Copper Oxide was wiped away (leaving some wash on the surface on textured areas), some of the excess powder was pushed to the unpainted side on the left to allow it to fill some of the texture. The surface was wiped in places with a paper towel to give it a soft coating without the brush strokes seen in Test #2.

Results and Observations

- 1) This experiment explores the impact of using a Red Copper Oxide/Gertsley Borate Wash on RTS/Mason Stain base on textured tiles.
- 2) Where the Red Copper Oxide wash was not brushed away (in deeply textured areas), the result produced had a dark metallic effect.
- 3) The general color of this wash is browner than the black color of the Black Copper Oxide wash in Test #2. The color of the thinner wash varied slightly depending on the underlying color.

4) Additional Research was needed to discover the reason for the problems with mixing the Red Copper Oxide. The subject of getting Red Copper Oxide into suspension is discussed in www.potters.org/subject/11764.htm: “Neither extensive stirring nor soaking overnight solves the problem of getting Red Copper Oxide into suspension. The problem can be solved by adding a few drops of dish soap into the solution.”

The reason is that Red Copper Oxide is hydro-phobic:

“Red Copper Oxide, Copper (I) Oxide will oxidize to Copper (II) Oxide CuO (black) if left exposed to air (months). To stop this from happening, the producers of Red Copper Oxide treat the Cu_2O powder with a hydrophobic coating. This very thin coat repels water. One removes the coating by use of a detergent which acts to lower the surface tension of the water so that it will “wet” the Cu_2O particles and enable them to be dispersed. The amount of detergent will depend on the amount (%) of Red Copper Oxide in the solution.”

4: RTS/Mason Stain base, Iron Oxide/Gertsley Borate Wash, (12 day) Flux Wash

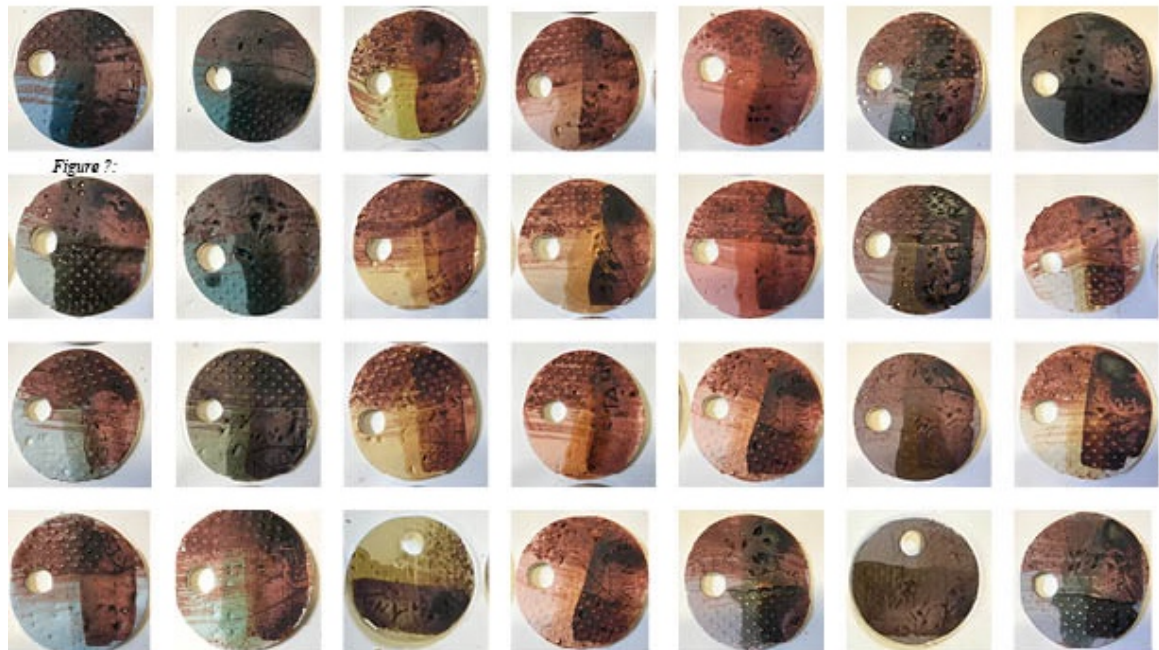


Figure 46. Test tiles from experiment #4.

As in all preceding experiments I used the same tile type, color selection and layout. As in Experiment #3, the bone-dry test tiles were painted with three coats of RTS/Mason Stain base and burnished. Then, an Iron Oxide/Gertsley Borate (one-to-one) wash was applied to one half of the tile. This was done to allow for the testing double versus single coat of iron oxide wash.

The application method was altered in this test in order to avoid oxide damage to the kiln shelf. No color, oxide, sigs were applied to edges or near the holes in the tile. If this becomes an aesthetic problem, trays can be used during the firing process to avoid kiln shelf damage. The tiles were then bisque fired at cone 08.

After cooling, an additional coat of the Iron Oxide Gertsley Borate wash was applied to right/bottom side of the tile. Then a stripe of Flux wash (12 days old) was applied to span the Iron Oxide/Gertsley Borate and RTS/Mason Stain base. The tiles were fired at cone 04.

Results and Observations

1) This experiment explored the impact of RTS/Mason Stain base with Iron/Oxide Gertsley Borate Wash and Flux Wash (12 days old).

2) Crazeing was observed on tiles where the Flux wash intersected with the RTS/Mason Stain base and Iron Oxide/Gertsley Borate Wash 1:1.

See: CHART, TE and REB.

3) Tiny dots can be seen at the intersection of the Flux wash and the second application of the Iron Oxide/Gertsley Borate Wash. These dots are the same color as the underlying the RTS/ Mason Stain base (with Flux wash) ranging in size but mostly 25% of a pinhead or smaller. These dots only affected the second coat of the Iron Oxide/Gertsley Borate Wash. They seem to be caused by crystals in the Flux wash that had not been completely broken up when the solution was stirred (prior to application). This result is best seen on four tiles: WT, RTS, TA, and SKB. Tiny dots of extra sheen with no color change are found on many tiles (see photos).

4) The addition of the Flux wash altered the color, value, and hue of the underlying RTS/ Mason Stain base layer. This change varied from tile to tile as seen in the image below.

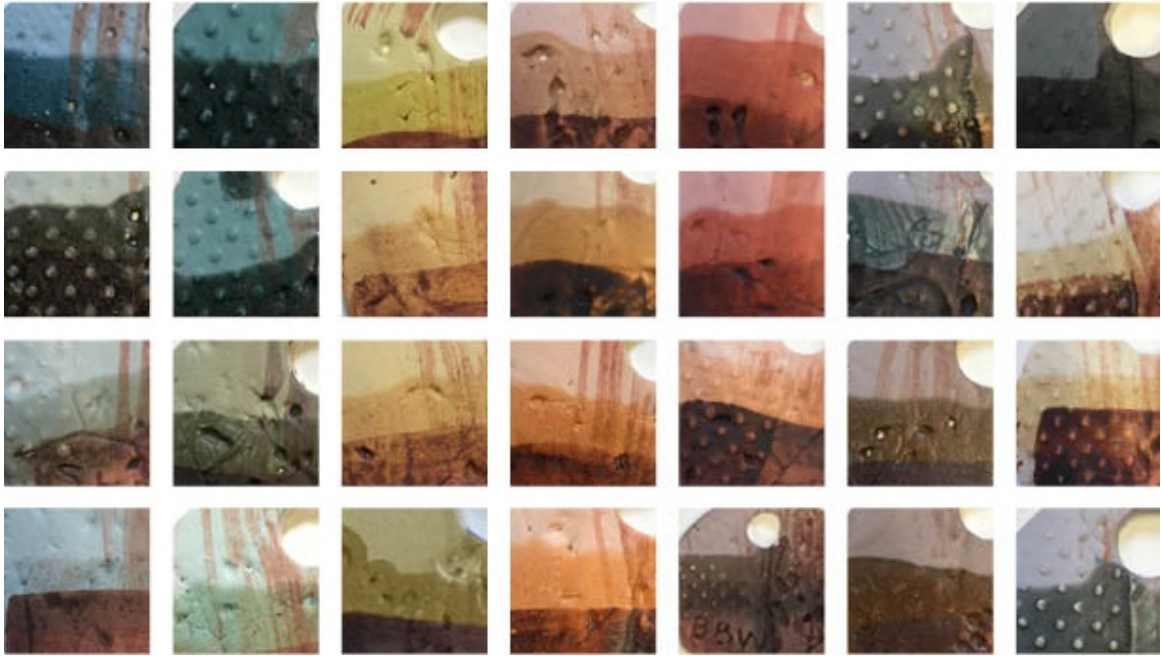


Figure 47. Test tiles from experiment #4 (detail).

5) The addition of the Iron Oxide/Gertsley Borate Wash altered the color of the underlying the RTS/ Mason Stain base layer depending on the thickness of Iron Oxide/Gertsley Borate Wash layer and the underlying color. Reds and yellows became more red. Greens were tinted with red/brown to brown. AVO turned dark eggplant. WBR became a darker version of itself. BBW became a richer darker version of itself. Blues changed completely. BK and PECK had a beautiful patina, which is hard to describe (see photo above).

6) In some places, the Iron Oxide/Gertsley Borate Wash layered on top retained its color and in other places it created a translucent layer mixed with the underlying color.

7) Texture results: a) Reaction to raised dot texture resulted (for the most part) in lighter dots. b) Reaction to the holes and indents resulted in darker areas.

8) RTS/Mason Stain base chipping issues: Only slight chipping, mostly occurring on the edges of AVO, REB, TL, and PEC.

9) Burnishing: A general observation regarding Test #4 (but also of Tests #1, #2 and #3) is that the finished test tiles do not maintain their burnished surface after firing.

Additional Research

1) I searched for oxide washes specifically formulated for Cone 06 – Cone 04 after first fire because the Iron Oxide Gertsley wash was matte where I had expected metallic sheen (where thick), which I thought might be a vitrification issue.

This website (shambhalapottery.blogspot.com/2013/03/happy-st-paddys-day.html?m=1) recommends: “for lower fire usage, substitute Gertsley Borate or Ferro 3124 or Ferro 3134 of Feldspar or powdered clear Celadon” and also provided concentration/ratio recommendations for its use in different washes that I used thereafter. (They also have a list of 105 recipes for oxide washes.)

2) I also did some additional Terra Sigillata research including: Lecture – Peter Pinnell at NCECA March 14-17, 2018 “Terra Sigillata: Lost & Found” (by Peter Pinnell and Ronda Willers). Published on YouTube (April 2018). This lecture is an overview of the history, current uses and future possibilities of Terra Sigillata. Book – Terra Sigillata Contemporary Techniques (Ronda Willers)

Ideas for Future Surface Testing

Observations and results from my experiments plus additional research suggest several avenues for future surface testing, some of which I incorporated in later tests (not all).

Proposed tests based on Test #4 observations and Pete Pinnell/ Ronda Willers research:

- Test for clay and Terra Sigillata compatibility – test on different types of clay.
- Test RTS on Red Rock earthenware test tiles.
- Test Terra Sigillata made from Red Rock clay on white earthenware tiles.
- Test for addition of Mason Stain.
- Test for using Terra Sigillata as a base and color with oxides.
- Test to use patinas of Gertley Borate plus colorant as a thin wash over bisqued Terra Sigillata. Apply and then rub off. This works on textured areas.

Substitute oxides for Mason Stain based on Pete Pinnell suggestions:

- Green = ½ Teaspoon Chrome Oxide per one cup Terra Sigillata
- Blue = ½ Teaspoon Cobalt Carbonate per one cup Terra Sigillata

- White = 1 Teaspoon Zircopax (or equivalent) per one cup Terra Sigillata
- Off White = 1 Teaspoon Titanium Dioxide per one cup of Terra Sigillata

5: RTS/Mason Stain base with (15 day) Flux Wash



Figure 48. Test tiles from experiment #5.

The same the RTS/ Mason Stain base layers were used as in prior tests, but the clay body was changed to Red Rock earthenware. It was applied with the methods used in Experiment #3 and #4. In addition, a Flux Wash was applied on the right side of each tile (more than 15 days old). There was no use of oxide washes in this test. The tiles were fired only at Cone 04.

Results and Observations

1) This experiment explored the impact of RTS/Mason Stain base on Red Rock tiles with Flux Wash (older than 15 days).

2) The colors of the RTS/ Mason Stain base are beautifully complimented by the Terra cotta color of the test tile clay, as seen in the image series below.



Figure 49. Results of first application of color on 3 hand-size sculptures.

3) The most noteworthy observation is result of an Flux wash relative to age:

- Where thin, produced a slight (darker) change in color.
- Where crystals landed, there was a change in saturation.
- Cracking of Terra Sigillata layer in textured areas.

Comparing Flux results: Test #1 and #5:

Tests #1 and 5 shared a common slip and stain base with an overlapping Flux wash. But the differences in the tests were in the clay bodies (Test #1 white earthenware vs Test #5 red rock earthenware), the age of the Flux wash (Test #1 Flux wash was 1 day old while Test #5 was 15 days old), when the Flux wash was applied (Test #1 Flux wash on bisque, while Test #5 Flux wash on raw clay) and the firing sequence (Test #1 Final Fire Cone 05 and Bisque Cone 06, Test #5 only one firing at Cone 04).

The results illustrated in figures 40 and 41 show that there was much stronger effect of Flux wash on Test #1 than on Test #5. There is a greater change in color and sheen where the Flux wash was applied in Test #1 than in Test #5. There is a subtler effect with crystallized particles melting in dots and cracking in the valleys of the texture in Test #5 than in Test #1.



Figure 50. Close-up images of Experiment #1 test tiles.



Figure 51. Close-up images of Experiment #5 test tiles.

6: RTS/Mason Stain and RRTS base with Copper Carbonate/Gertsley Borate wash



Figure 52. Test tiles for test #6.

In Experiment 6, I changed the Terra Sigillata to a Red Rock base applying it to tiles of Red Rock earthenware. I used equal parts of the RTS/ Mason Stain base and Pete Pinnell's "Real Easy Terra Sig" using Red Rock earthenware.

Pete Pinnell's Real Easy Terra Sig

5 pounds Red Rock clay (wet)

7 pounds water

2 Teaspoons Sodium Silicate

1 Teaspoon Soda Ash

I applied this mixture as a first layer, then bisecting the tile I applied a second layer of the original RTS/ Mason Stain blend on the left side. The tiles were fired at cone 08
When cool, a wash of Gertsley Borate (2 parts) and Copper Carbonate (1 part) was applied to the bottom half of tiles and illustrated in figures 42 and 43. The second fire was at Cone 03.

Results and Observations

1) This experiment explores the effects of modifying the RTS/Masum Stain base with Red Rock Terra Sigillata and adding a layer of Copper Carbonate/Gertsley Borate 1:2 Wash.



Figure 53. Test tile detail for test #6.

7: RTS Mason Stain base with Oxide washes from Tests #2, #3, #4 and #6



Figure 54. Test tiles from experiment #7.

Experiment 7 was an oxide wash test on white and red rock earthenware. All test tiles received three layers of RTS, burnished with NO Mason Stain. They were then treated with the same oxides that used in Test #2 (Black Copper Oxide), Test #3 (Red Copper Oxide and Gertsley Borate), Test #4 (Red Iron Oxide and Gertsley Borate) and Test #6 (Copper Carbonate and Gertsley Borate). They were fired at Cone 04.

The close-up images below show a clearer picture of the results of the various oxide washes by row. Row 1: Black Copper Oxide plus water. Row 2: equal parts Red Copper Oxide and Gertsley Borate plus water. Row 3: equal parts Red Iron Oxide and Gertsley Borate plus water. Rows 4 and 5: Copper Carbonate and Gertsley Borate plus water.



Figure 55. These close-ups show the results of the various oxide washes by vertical row: Black Copper Oxide, Red Copper Oxide/ Gertsley Borate, Red Iron Oxide/Gertsley Borate and Copper Carbonate/Gertsley Borate twice.

Results and Observations

1) The resulting colors were:

- Black Copper Oxide wash – brown with olive tint
- Red Copper Oxide wash – warm brown and yellow where thin
- Red Iron Oxide wash – reddish brick color (darker where thicker)
- Copper Carbonate wash – olive

2) Some of the tile samples were unfired clay and some were bisque clay. I found more subtle results on raw clay tiles.

3) The oxides that were combined with Gertsley Borate are harder to wipe away.

Surface Application on Hand Sized Sculptures

The previous tests (1-7) provided a wealth of information in the use of the RTS/ Mason Stain base, Oxide and Flux washes, and resulted in over two hundred (200) color possibilities (seven modifications of twenty-eight colors plus four RTS variations.) Rather than testing all color variations on separate sculptures, I decided to test colors and application methods on a few small sculptures.

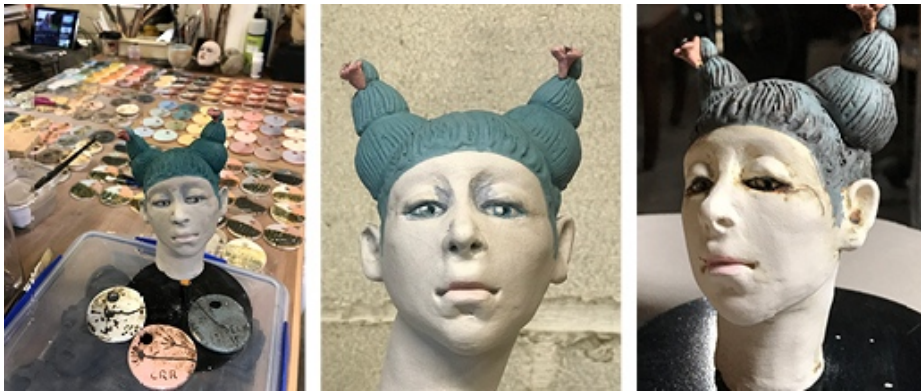


Figure 56. Three stages of surface application: 1) using test tiles to determine color choice. 2) Sculpture with RTS with and without Mason Stain tint 3) results after 2nd fire with Black Copper Oxide wash.

The image series above shows three stages in the surface application process. 1) Test tiles from the second experiment were used to determine color choice. 2) RTS with and without Mason Stain tint applied to the sculpture. 3) Results after 2nd fire with Black Copper Oxide wash. This exercise is one of the first steps in determining best practices regarding: application, color combination and form/color compatibility.

8: RTS/Mason Stain base, Oxide and (1 day) Flux wash



Figure 57. Test tiles from experiment #8.

In this test, the test tiles are made from a new clay body, #94600 Black Moist Clay (Sheffield Pottery, Inc) Cone 05 – Cone 2. The first step was the application was of the RTS/Mason Stain base on all test tiles using the same method as in prior tests. Six oxide washes: Black Copper Oxide; Copper Carbonate/ Gertsley Borate; Red Copper Oxide/ Gertsley Borate; Red Iron Oxide/ Gertsley Borate; Red Iron Oxide/ Gertsley Borate; Cobalt Oxide/ Gertsley Borate were applied on the right side of each test tile. See sketchbook for a more detailed sketch of the oxide wash thickness and placement. Before the second firing at cone 04, a Flux wash (24 hours old) was applied on the bottom half of all tiles.

The new results have a reduced number of rows (six instead of seven as in the previous tests). Removed are the three test tiles that were treated with BBW color blends plus one of the WBR tiles – as they have proven to be redundant. The new layout described here can be seen in image below.

Row 1 - blues with Black Copper Oxide

Row 2 – greens, blue greens and yellow greens with Copper Carbonate/ Gertsley Borate

Row 3 – yellows and peach with Red Copper Oxide/ Gertsley Borate

Row 4 – reds and oranges with Red Iron Oxide/ Gertsley Borate

Row 5 – coral, blackberry and brown with Red Iron Oxide/ Gertsley Borate

Row 6 – black, white and gray with Cobalt Oxide/ Gertsley Borate

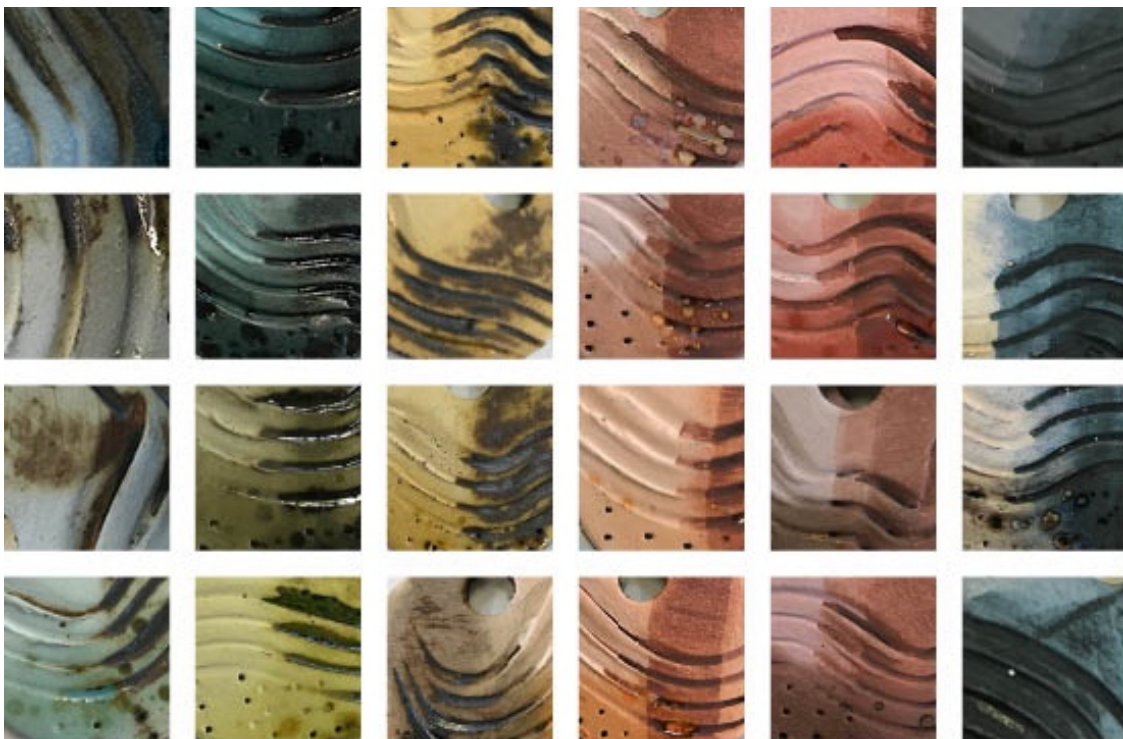


Figure 58. The new RTS/Mason Stain palette layout.

Results and Observations

1) This experiment consolidates the most favorable aspects of variables used in prior tests and applies them to a new clay body. The results are illustrated in the figure above.

2) One brush stroke of Flux wash leaves a slight sheen and increases the vibrancy of the Mason Stain colors. The shiny dots that change the underlying color were from small crystals that melted into the tile on firing.

3) Deep textured lines filled with oxide washes became very dark. Note, deep texture will be markedly darker than flat or lightly textured areas.

4) The burnish was visible on most tiles.

5) Colors of the RTS/Mason Stain base layer are slightly lower in color saturation than on the red rock or white earthenware test tiles (from previous tests). The clay shows through the RTS/Mason Stain base layer more with black clay than with the other two clays. This was a nice effect.

6) One of the things I noticed in both the application and result phases was that it is impossible to judge oxide wash thickness by eye. Therefore, in the future, I will need to measure the oxides AND the water to get a consistent density.

7) My goal had been to use oxidation washes to enhance the color of the RTS/ Mason Stain base layer. The results showed the potential for certain combinations.

8) Black Copper Oxide was tried on Blue Colors – the Black Copper Oxide was black on textured areas but brown where thin. In the future, this suggests Black Copper Oxide may work well on WBR, BBW, GAM and yellows.

9) Copper Carbonate with Gertsley Borate was tried on greens, blue greens and CHART. The result was “ok” but not “great”. The resulting surface was uneven, but not in a good way.

10) If I want to use Copper Carbonate with Gertsley Borate in the future, I’ll have to determine the right amount of water to give the best results and apply evenly and as I would watercolor paint.

11) Red Copper Oxide tried on yellows didn’t yield a good result. This suggests that Black Copper Oxide may be a better choice for yellows, peach and brown colors.

12) Red Iron Oxide/Gertsley Borate and Cobalt/Gertsley Borate yielded good results on the colors with which they were matched.

More Ideas for Ongoing Testing

- 1) For information on using the RTS/ Mason Stain base on bisqueware look to Mark Pharis. Mark uses a low fire white slip that has an addition of Lithium Carbonate (2-4%) as a base coat for bisque ware. After application, he adds a layer of sprayed Terra Sigillata with Mason Stain. On pages 78 and 79 of *Terra Sigillata Contemporary Techniques* (Rhonda Willers) there are marks notes and recipes.
- 2) Use two low fire white slips as a base coat with 2-4% Lithium Carbonate

Stick to Anything White Slip (Cone 04-10)

Cornwall Stone – 12.5%

Nepheline Syenite – 12.5%

EPK Kaolin – 25%

OM 4 Ball Clay – 25%

Silica – 25%

Add Zircopax – 2.5% and Ferro Frit 3195 – 2.5%

Pete Pinnell's Standard White Slip (Cone 04)

Talc – 40%

Nepheline Syenite – 10%

OM Ball Clay - 40%

Silica – 10%

Add Zircopax – 7%

9: New color combinations with Oxide and Flux washes



Figure 59. Test tiles from experiment #9.

The RTS/Mason Stain base colors were applied to 24 tiles, 3 colors on each tile, the boundaries of which were scratched down into the clay. Colors were chosen by eye, with one color on each tile following the color palette adopted from Test #8. Oxide washes were applied by row to right side of each tile as described here:

Row 1 – Black Copper Oxide

Row 2 – Copper Carbonate

Row 3 and 4 – Rutile

Row 5 – Red Iron Oxide

Row 6 – Cobalt Oxide

The tiles were fired at cone 06. When cool, a Flux wash (3 days old) was applied on the bottom of each tile.

Results and Observations

- 1) This test has provided the most interesting color combinations and the best result of effects of various oxides on specific colors (illustrated in figure above).
- 2) This test also shows effects of Flux wash the colors of the RTS/ Mason Stain base vs Flux wash on the RTS/Mason Stain base with oxides.
- 3) Research to find substitute oxide for Row 3 and 4 (Rutile) from *Color Oxides Basic Percentages* (Ceramic Arts Network). Extensive notes on this research can be found in Sketch Book.

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