

EXPLORING THE POSSIBILITIES OF COMBINING
HAND FABRICATED AND MOLD FORMED
CERAMIC PROCESSES

PROBLEM IN LIEU OF THESIS

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF FINE ARTS

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Denton, Texas

May, 1976

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CHAPTER I

INTRODUCTION AND STATEMENT OF PROBLEM

Today's dominant Western culture is terribly urbanized, depending almost entirely on the machine for every possible function. The artist-craftsman is acting as a heretic against the tyranny of the machine, which seems to be creating more functions for more products to satisfy the ever-increasing demand for more production. He is now free to decide if his art object is to function superbly or not at all.¹

The abstract expressionist movement aided in the development of this new personality for the clay world. An entire new dimension was added with extreme manipulation of ceramic pieces.

Often in an abstract expressionist's work the element of intuition or the accidental played a large or deliberate part. This is one of the contributions of abstract expressionism. But there was always involved the control of many years' practice and reflection.²

Peter Voulkos was probably the most influential person in establishing these new sets of attitudes in the clay world. His work over the past twenty years takes on a

¹Rose Slivka, Aileen Webb, and Margaret Patch, The Crafts of the Modern World (New York, 1968), p. 15.

²Eileen Lewenstein, and Emmanuel Cooper, New Ceramics (Cincinnati, Ohio, 1974), p. 157.

pivotal importance, marking a breakthrough in the traditional essence and attitudes of ceramics. Influenced by surfaces and shapes of Japanese folk potters, Voulkos then incorporates his own free, bold responses to the innate qualities of clay and fire.

A variety of typically mass-production techniques are now being employed by ceramic artists in a vibrant, fresh manner. These include slip casting, stencils, press molding, photo-silkscreening, metallic lustres, china paints, and decals. The painting medium is also being mingled with traditional ceramic ideas and techniques. Spraying and brush skills utilizing all types of paint are engaged in clay activity. This marriage of materials extends into the realm of conceptual art, combining even the elements wind, rain, and snow. The enduring clay object is not as important today as in the past.

My work reflects contemporary feelings and ideas concerning today's society and the status-quo. Common, everyday images recur in my art objects, with a major interest in cars, food, slogans and puns. These are all a part of the hysteria of the American scene today.

To effectively convey my ideas and imagery, for this problem I have explored some of the possibilities of combining hand fabricated and mold formed ceramic processes.

My interest in combining mold formed and hand fabricated ceramic processes began approximately one year ago.

I had been working with off-the-wheel ceramic techniques for two semesters, incorporating a variety of hand techniques and intricate modeling, but had not made the transition from high fire to low fire materials. I was introduced to the B&G Ceramics shop at the corner of Myrtle and Maple Streets, Denton, Texas. It was there I first became aware of the possibility of obtaining intricate detail through commercially available plaster casting molds and precast greenware objects. Commercially cast objects vary from Cresh sets and Brahman Bulls to vegetables and Volkswagen. Their scale ranges from one-fourth to thirty inches tall. I was equally astounded by the vast array of commercial glaze products.

This project is a descriptive study of the technical and aesthetic considerations that occurred in the development of a series which combined hand fabricated and mold formed ceramic processes. All aesthetic decisions and solutions are based on personal choices made during the creation of each piece. There are certain technical considerations which would not be helpful to the aesthetic properties of a piece and vice versa. I made careful choices I thought pertinent to my problem examination. Final evaluation ensued at the completion of each piece.

Data was gathered by brief notes and sketches of each piece and by color slides and photographs of the completed

series. The collected verbal and visual data was analyzed for information relevant to the stated problem.

Defining word usage would be a lengthy proposition. Therefore all terminology employed in this examination paper are standard ceramic vocabulary as outlined in the reference, The Illustrated Dictionary of Practical Pottery by Robert Fournier, Van Nostrand Reinhold, 1973.

CHAPTER II

STUDIO INVESTIGATION

My ideas stem mainly from the elements I have around the studio or house at the time of inspiration. Types of molds, extra components from old pieces, and found objects often stir an idea or emotion. A play on words or the particular selection of imagery brings each piece to a level of everyday casualness. This is where differing juxtaposition plays a large part in releasing the piece from its normal environment. With the use of vertical back slabs and a strong visual push/pull of aforementioned imagery, I created a stage to convey the feeling of "peeking in" on an ordinary days event.

For clarity and brevity I am first discussing the variables which remained constant in all pieces. A detailed resume of the technical and aesthetic characteristics of each of five selected pieces follows.

For this project I constructed a total of forty-one pieces. The first nineteen were small experimental studies in glazing methods and imagery. The following is concerned with the specific technical and aesthetic considerations amassed during the execution of five selected pieces. As

a basis for selection, I chose the pieces I felt were aesthetically and technically most successful. A color photograph accompanies each description to clarify my statements.

Due to the nature of processes I was combining, and the abundance of reliable ceramic products, all the materials I utilized were commercially purchased. Both the casting slip and modeling clay bodies are the same formula and were obtained from Trinity Ceramic Supply, Dallas, Texas.

VELVA-TEX MODELLING CLAY AND CASTING SLIP

| | |
|--------------------------------------|-----|
| Talc | 200 |
| Plastic Vitrox | 60 |
| Tennessee Ball Clay | 60 |
| OM #4 (Kentucky Ball) | 60 |
| Kentucky Special Ball Clay | 20 |

The addition of a deflocculant to the slip at the rate of about one-half percent dry weight was the only formula alteration.

The glazes I employed in this investigation were the Duncan and Ceramichrome brands of commercial glazes. I chose not to mix my own glazes due to the wide range of commercially available products. I did mix to achieve a variety of colors. (The chemical compositions of all commercial glazes and underglazes are available through the respective companies.)

The commercial plaster casting molds were manufactured by Duncan Manufacturing Company. I made all press molds by forcing the desired object (plastic cowboy, china flamingo) into a piece of wet clay which was then fired to maturity.

Two main technical complications occurred during the problem examination. These were warpage and cracking, which occurred at four crucial drying stages in the fabrication process. In certain cases they were inconsequential, other times they proved so disastrous the piece was discarded.

Throughout the wet stage cracks appeared in two instances. If I used a press mold for repeated imagery, tiny vein-like cracks surfaced. This was caused by too dry clay, and was remedied by using clay which was fresh from the bag and very plastic. If cracks did occur, I used a wet chamois to blend the clay into the cracked area. In certain cases I left tiny cracks in the piece. To enhance a particular image, I could fill the crack with dark glaze and use the darkness as a contrast to lighter underglazes of color.

Cracks were totally avoided in the greenware stage by allowing the piece to dry very slowly under plastic bags, then out in the open studio air.

Occasionally a crack appeared in the third stage of drying, the bisque firing. This was due to stress or uneven pressure applied to the piece during its formation. Care

was taken to avoid such action. When a small crack did surface, I filled it with glaze to bond it together. If the crack was large and not concealable, I discarded the piece.

Cracks which appeared in the glaze firing were usually stress cracks, started in the bisque firing but had not forced through to the surface of the piece. If the piece could be saved technically and aesthetically, I did so by covering the crack with a component part and using epoxy to bind the area. If the crack was large and not concealable, I discarded the piece.

The second technical consideration, warping, was the most noticeable and detrimental of the two. The majority of pieces in my problem examination utilized a vertical back slab of clay attached to a horizontal foreground slab, to create the staging of a miniature environment. Due to the method initiated for joining the parts as well as malfunctions in the heating elements of the electric kilns, a majority of the vertical slabs warped to a degree.

The joining procedure was the same in all pieces. I applied heavy slip and scoring on the major joints and light slip and scoring on the smaller joints. In certain forms (Volkswagen) it was difficult to glaze them while attached to the body of the piece. I left these unattached until glazed, then fired them in place or used epoxy after the entire piece was completed.

I managed to remedy the most severe warping by increasing the thickness of the vertical and horizontal slabs and slowing the entire firing process, with the pieces carefully situated in the kilns away from the heating elements.

In several instances a preferred solution to the one I employed for a technical problem, came to mind after the series was completed. I made note of each instance in my data book for future reference.



Fig. 1--"Mona Lisa is Alive and Well in Paris, Texas."

Size: 8"H x 9"W x 11"L

Glazes: Provincial Gold, Semi-Matt Brown, Christmas Green

Underglazes: Golden Green, Denim Blue, Pink, Tan, Grey,
Black.

"Mona" was the first piece in which I combined a hand fabricated horizontal and vertical slab to illustrate a miniature environment. In the horizontal slab, the scene portrayed is a desolate Texas prairie with hand fabricated cactus and sage brush. In the distance a cowboy is shooting a kangaroo, both of which are press molded. There is a sign in the center with Paris printed upon it and an arrow pointing to the vertical back panel. The vertical panel contains a large decal of the Mona Lisa trimmed along the edge in gold metallic lustre.

I encountered only one technical problem with "Mona." This was a small crack in the vertical panel which appeared in the decal firing. It was due to stress from the joining process during the formation of the piece.

The scale relationship of the vertical and horizontal slabs is balanced and keeps the viewer's gaze within the environment. The ragged edges of the horizontal slab are effective in portraying a portion of the earth. The Paris sign, and decal of the famous "Mona Lisa" relay a bit of humor as situated in the obvious Texas landscape.

The glazes are subdued in color, adding to the lonely deserted feeling of the piece. This contrasts the gold metallic lustre haloing the "Mona Lisa." The gold lustre satirizes the high, regal stature which this painting commands in the annals of art history.



Fig. 2--Ode to Fred.

Size: 9½"H x 9"W x 13"L

Glazes: Semi-Matt Brown, Silver Spruce, Sage Green,
Leaf Green, Clo-Matt White, Glo-Matt Black,
Heavenly Pink, Lemon Yellow.

Underglazes: Tan, French Antique, Taupe, Teakwood,
Nutmeg, Black, Jonquil Yellow, Lip Red.

"Fred's" doghouse was joined, with heavy slip and scoring, to the base of the piece during its formation. "Fred" was left unattached to facilitate glazing. Due to this, a tiny amount of warping occurred to his hind legs during the glaze firing. The pressed letters in the doghouse and yard were the only mold elements incorporated. The rest of the piece was entirely hand fabricated.

"Fred" is the only piece of the selected five which is entirely three dimensional, utilizing no vertical back panel. The slab structured doghouse provides a clean, soft transition from "Fred" to his environment. The basic triangular composition is visually balanced both in structure and color. A semi-matt brown glaze was utilized as a base with various colored underglazes as accents. The black and white pattern of "Fred's" spots, attracts the viewer's attention, and his upraised ear brings you directly to the focal point.

"Fred" developed from a sudden doggish impulse. The inspiration was purely a tribute to backyard dogs.



Fig. 3--For the Sake of My Family, I'll Vote Wet.

Size: 7"H x 13"W x 11"L

Glazes: Semi-Matt Brown, Caramel, Clear Gloss, Gloss Black, Cinnamon, Gloss Pink, Flame Red, Leaf Green.

Underglazes: Jonquil Yellow, Pink, Black, Turquoise, Lip Red, Denim Blue, Amber, Taupe, French Antique, Tan, Nutmeg, Teakwood, Grey.

In "Vote Wet" I incorporated a hand fabricated vertical/horizontal slab structure illustrating a miniature environment of an old Western scene. The vertical back panel is composed of red earthenware clay accents on a whiteware

slab, with the doors and windows portrayed in relief. Press molded cowboys, in a variety of shooting positions line both vertical and horizontal slabs. Six cast molded Volkswagen are brightly glazed to resemble Pinto horses. The word Saloon is press molded into the vertical back panel.

I encountered two minor technical problems. The vertical back panel warped slightly during the first drying stage, due to joining two slabs of unequal moisture content. Secondly, a small crack appeared in the horizontal panel during the bisque firing, caused either by stress in formation or uneven heating in the bisque firing. This crack was bonded together with glaze then hidden beneath a Volkswagen.

The use of a dark semi-matt brown as a basic glaze unites the horizontal and vertical panels. The press molded cowboys are accented with a variety of bright underglazes, creating movement from foreground to background. The recognizably human stances of the cowboys add a reality to the entire scene, initiating a feeling of Channel 11 late night Westerns.

I fabricated "Udder" (Fig. 4, page 15) primarily of a long horizontal front slab joined with a small vertical back panel. Both horizontal and vertical slabs are torn along the edges for an earth-like effect. The miniature environment illustrates a highway scene with the illusion

continuing through to the back panel. There is a large cast molded spotted cow lying in the middle of the road, causing a six Volkswagen traffic collision. The clouds in the vertical panel repeat the cow image with an integrated press mold cows head.



Fig. 4--Udder Collision.

Size: 9"H x 9"W x 15½"L

Glazes: Semi-Matt Brown, Glo-Matt White, Gloss
Black, Heavenly Pink, Stoney Grey, Clear
Gloss, Glossy Pink, Bagdad Red, Lemon Yellow,
Cinnamon, Leaf Green, Christmas Green.

Underglazes: French Antique, Tan, Taupe, Auburn,
Teakwood, Nutmeg, Jonquil Yellow, Denim Blue,
Lady Pink, Grey.

There were no technical problems encountered in "Udder." I left the cow and Volkswagen unattached to facilitate glazing, then positioned them with epoxy after the piece was completed.

The vertical back slab carries the imagery from the foreground to the background, creating continuity of composition and mood. The glazes and underglazes are repeated and reinforced throughout the piece, aiding visual movement and cohesiveness. Black and white spotting on the cow draws attention to the central event of the environment; the collision. The colors of the Volkswagen are repeated in the clouds and terrain, unifying the entire scene. The extreme realism of this piece is accentuated by the overtly common imagery and event.

LARGE COW CAUSES WRECK ON I 35! EXTRA!!



Fig. 5--Welcome to the Sunshine State.

Size: 8"H x 11"W x 11½"L

Glazes: Butterskotch, Heavenly Pink, Caramel, Semi-Matt Brown, Clear Gloss, Sage Green, Christmas Green, Leaf Green.

Underglazes: French Antique, Tan, Taupe, Green, Chartreuse, Teakwood, Nutmeg.

"Sunshine" was the last vertical/horizontal slab piece I constructed. It is composed of a hand fabricated circular back vertical panel with press molded flamingoes lacing its perimeter. The horizontal panel is a grassy landscape clustered with flamingoes. One Volkswagon is

presented with a covering of grass and a lone flamingo perched atop the roof. There is a total of fifty-nine press molded flamingoes incorporated in this piece. A cast molded sun-tanned nude bathing beauty poses in front of the back vertical panel, which reads "Welcome to the Sunshine State." To either side of the bather's head a hand fabricated Sunkist orange is attached.

I encountered no technical problems in this piece.

The colors in "Welcome" enhance and contrast each other, especially the greens and pinks. Along the perimeter of the vertical panel, the flamingoes act as a transition drawing attention from the back panel to the foreground, and then to the bather. The small Sunkist oranges on the vertical back panel accentuate the Sunshine theme. The flamingoes and oranges, as well as the bather, vividly suggest added slogans to Florida's growing repertoire.

CHAPTER III

SUMMARY AND CONCLUSION

In the American ceramic scene, there really is no one prevailing style or philosophy.

The object-makers are commenting on their middle-class culture of mass-produced, standardized good taste as a domesticated, housebroken, sanitized sensibility. The objects are their own comment, their own mute drama. They amuse, accuse, and challenge. Having shed their roles as functional or decorative intermediaries, they assume their own objective aspect and we are brought face to face with the heightened concrete perception.¹

After deciding upon imagery, I allowed the technical aspects of combining hand fabricated and mold formed ceramic processes develop the idea, depending on the molds and component parts which were available. I discovered that the most visually exciting pieces from the series were those which emphasized hand fabricated processes with press and cast molded pieces as subordinate elements. Slight technical problems did not thwart the aesthetic considerations of any piece. Only a major technical crisis caused aesthetic alarm, and under those circumstances the piece was forfeited entirely or remade.

¹Rose Slivka, Aileen Webb, and Margaret Patch, The Crafts of the Modern World (New York, 1968), p. 18.

Warpage occurred in varying degrees as most frustrating of technical problems. Hindsight proved more revealing than foresight in this instance. I had joined the back vertical slabs in the same manner each time. I discovered that height and thickness of the vertical slabs affected warpage, and thus remedied the greatest portion. Although I had been using epoxy for small components (cowboys, flamingoes) I did not realize that I could have employed the same procedure for the vertical back slabs. This would have eliminated warpage and cracking to the greatest extent.

Extreme heat was another factor in warpage of the vertical back slabs. The electric kilns available at the time had a sixteen inch square firing chamber. My pieces are nearly that scale themselves. Thus, heat was directly upon the vertical slabs causing uneven firing of the pieces. The kilns, having only an on/off switch, allowed no gradual heating. I fired the last two pieces of the series in a new electric kiln with no resulting warpage.

Extreme fragility of the finished pieces must be taken into account. The pieces with tiny exposed components, such as cowboy arms, flamingo necks and cow horns, break easily. Their portability is greatly reduced, due to intricate surface relief. For support I cut a plywood base for each piece. I observed that the slight elevation

gave better presentation to the viewer. This elevation could be extended to ceramic bases incorporating underglazes of various colors to enhance the piece.

Regarding the aesthetics of the objects in my problem examination, combining hand fabricated and mold formed ceramic processes proved very conducive to the imagery I chose to portray. My pieces convey a sense of humor, exposing the curiosities of Americana. This is accentuated in the juxtaposition of scale and dissimilar components. The hard, detailed features of commercial mold pieces oppose the manipulated forms of hand fabricated pieces, and create a strong contrast to emphasize the desired playfulness of imagery. Mold processes yield such a degree of clarity and detail that recognition of the comical relationships is quickly achieved. Thus my intent toward a humorous statement is elevated and readily discernable.

It is intended that this investigation aid in questions concerning the technical union of these two types of processes and the visual compatibility of their imagery.

Further study into the combination of hand fabricated and mold formed ceramic processes could incorporate such improvisations as scale changes, various glazing and staining techniques and combinations, the use of abstract imagery, silkscreening, decals or photographic imagery. The possibilities are endless.

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