THE VISUAL STRUCTURE
OF COLOR AND FORM

A Thesis
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for the Degree Master of Fine Arts

by
Karl Adolf Hofmann, M.A.
The Ohio State University
1969

Approved by

[Signature]
Adviser
School of Arts
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INTRODUCTION

There is nothing new about making pots where three-dimensional form and two-dimensional color areas look unified regardless of the vantage point of the observer. Potters have done this successfully since time immemorial. Nevertheless, this thesis will deal with just that problem in the hope of adding a new approach to its solution.

Good decoration on wheel thrown pottery seems to occur within a limited range of possibilities. These are determined by the symmetrical roundness of the pot. Seen from any position decoration appears to have neither beginning nor end unfolding before the observer as the pot is revolved. Thus horizontal bands of color are perhaps the simplest method of decorating. Other approaches such as the Japanese way of using calligraphic decorations are successful when seen in full, but less so when the turning edge of the object begins to hide parts of the motif.

Other possibilities of decoration which were suggested by pots with well defined planes were the starting point of the work represented in this thesis.
A pot with flattened sides and a roughly octagonal shape was one of the first results of this study. Although planes were established decoration could still be read as a band moving around a central axis. Next came a series of altered thrown and hand built asymmetrical forms with defined planes. These were successful as three-dimensional forms, but for this very reason brought on the problem of an interrelationship of planes and volumes which often dominated decoration. In such cases decoration seemed to be applied rather than integrated as a part of the whole structure.

It became clear that establishing a planar structure was not enough to visually unify decorated objects. The problem was to bring the structure of color decoration on a par with the three-dimensional structure. It was also felt that the time which elapsed between making the object and eventually decorating it interfered with achieving its visual unity. What was needed was not a new type of object or some ingenious way of decorating a fired object, but a change in the traditional working sequence of the potter, a change in process which would place greater emphasis on the development of a strong figure-ground structure.
Preliminary drawings were made which combined contour line and color areas. In some places the line would define the contour, in others it would thicken or bunch up to form dark shapes. The result was a figure-ground composition of light and dark areas. Contour lines merging in the edges of shapes added a three-dimensional appearance. These drawings were essentially a method of training oneself perceptually to see two-dimensional shapes as being of equal importance to volumes and having them working together or contrasting in a dynamic way.

Wheel thrown forms were then painted with slips, parts were added on and repainted and altered until an object emerged which could be analyzed in terms of color area and form, but where both were interrelated to form a unified whole. For the purposes of the study a limited number of slips and slip glazes were used in conjunction with transparent glazes. The colorants selected for the slips and glazes were burnt umber, red iron oxide, cobalt oxide, rutile and a white slip. The reason for this limitation was to have a measure of control of relative color value with some predictability.

The objects resulting from this study were in intent structured on principles of visual organization emphasizing
figure-ground concepts. Contrasts of color, value and form were used to clarify decoration-form relationships. Illusory impressions of form were created with the objective of introducing dynamic contrasts. A continuous movement of line, a rhythmic progression of volumes and an overall flatness of decorated areas brought on visual unity in some of the problems attempted but in others lack of order seemed to disrupt and confuse seeing.
PLATE I

Wheel-thrown and altered tea pot. Salt glazed at cone 9; reduction. Salt Body decorated with White Slip #2 and Manganese Dioxide. Height 8".
PLATE II

Wheel-thrown and altered tea pot. Salt Body decorated with White Slip #2 and Burnt Umber. Salt glazed at cone 9; reduction. Height 10".
PLATE III

Wheel-thrown tea pot. Altered while damp. Decorated with a Red Iron Oxide wash on damp clay body. Glazed with MSU-3D and fired at cone 9; reduction. Height 5".
PLATE IV

Wheel-thrown tea pot, altered while damp. Decorated with Red Iron Oxide under MSU-8. Top stained with Burnt Umber. Fired to cone 9; reduction. Height 8".
PLATE V

Wheel-thrown and altered form. Slabs added while form was wet. Decoration applied while body was leather hard. Painted with White Slip #1 and Red Iron Oxide under two dips of MSU-3D. Fired to cone 9; reduction. Height 4". Width 8".
PLATE VI

Wheel-thrown and altered form. Decorated with White Slip #1 and Red Iron Oxide while clay body was damp. Dipped once in MSU-3D. Fired to cone 9; reduction. Height 5". Width 9".
PLATE VII

Wheel-thrown and hand-built form. Decorated with White Slip #1 while clay body was damp. Glazed with MSU-3D. Fired to cone9; reduction. Height 12".
PLATE VIII

Slab-built form. Decorated with White Slip #1 and Burnt Umber while clay body was damp. Glazed with MSU-3D. Fired to cone 9; reduction. Height 18".
PLATE IX

Hand-built clay form. Decorated with Milled Rutile and Red Iron Oxide under MSU-8 plain. Fired to cone 9; reduction. Height 12".
PLATE X

Slab-built clay form. Decorated and stained with Red Iron Oxide. Glazed with MSU-8, 2% copper carbonate added. Fired to cone 9; reduction. Height 18".
PLATE XI

Slab-built vase. Decorated with White Slip #1 and Burnt Umber on damp pot. Glazed with a thin coating of MSU-3D. Fired to cone 9; reduction. Height 15".
PLATE XII

Slab-built and altered weed pot. Decorated with White Slip #1 and Burnt Umber while clay body was damp. Glazed with a thin coat of MSU-3D. Fired to cone 9; reduction. Height 16".
Plate XIII

Slab-built clay form. Decorated with Red Iron Oxide.
Glazed with MSU-3D. Fired to cone 9; reduction.
Height 22".
Thrown and altered clay tumbler. Decorated with Red Iron Oxide while clay body was damp. Glazed with MSU-5 on inside and MSU-3D on outside. Fired to cone 9; reduction. Height 7".
PLATE XV

Slab-built weed pot. Decorated with Red Iron Oxide under Freda's Olive Orange and MSU-8 with 2% copper carbonate and 2% iron oxide added. Fired to cone 10; reduction. Height 15".
PLATE XVI

PLATE XVII

PLATE XVIII

Wheel-thrown cookie jar. Decorated with Cobaltic Oxide, Red Iron Oxide and White Slip #1. Glazed with Katy's Yellow Modified and MSU-3D. Fired to cone 9; reduction. Height 13".
PLATE XIX

Slab-built box. Decorated with Burnt Umber, White Slip #1 and Cobaltic Oxide. Glazed with plain MSU-3D. Fired to cone 9; reduction. Height 25".
PLATE XX

Slab-built box. Decorated with White Slip #1 and Burnt Umber. Glazed with MSU-3D plain and applied thinly. Fired to cone 9; reduction. Height 7".
Slab-built box. Decorated with White Slip #1, Burnt Umber and Red Iron Oxide (over slip). Glazed with MSU-3D plain and Katy's Yellow on the outside and Haystack Eggshell on the inside. Fired to cone 10; reduction. Height 15".
PLATE XXII

Slab-built form. Decorated with acrylic paints over a vitrified body. Height 8".
PLATE XXIII

Slab-built box. Glazed with MSU-8, 2% red iron oxide and 2% manganese dioxide added, and MSU-5. Fired to cone 9; reduction. Repainted with acrylics. Height 6".
PLATE XXIV

Slab-built weed pot. Decorated with Red Iron Oxide over White Slip #1. Glazed with MSU-3D plain and Katy's Yellow. Fired to cone 9; reduction. Height 14".
Clay Body Recipes

Stoneware Throwing Body  Cone 9 Reduction

50 pounds Cedar Heights Bonding Clay
15 pounds Cedar Heights Goldart Clay
20 pounds C+C Ball Clay
15 pounds 28-mesh Grog
2 pounds Burnt Umber

Stoneware Body for Handbuilding  Cone 9 Reduction

50 pounds Missouri Fire Clay
12 pounds C+C Ball Clay
15 pounds 28-mesh Grog
1 pound Burnt Umber

Salt Body  Cone 9 Reduction

60 pounds Cedar Heights Bonding Clay
20 pounds Missouri Fire Clay
10 pounds Kona F-4 Feldspar
10 pounds 28-mesh Grog

Engobe Recipes

White Slip #1

25 grams EPK Kaolin
25 grams C+C Ball Clay
20 grams Kingman Feldspar
20 grams Flint
5 grams Opax-S
5 grams Borax
White Slip #2

20 grams EPK Kaolin
20 grams Flint
20 grams C+C Ball Clay
20 grams Kona F-4 Feldspar
10 grams Nepheline Syenite
10 grams Tin Oxide

Glaze Recipes

MSU-3D  Celadon  Cone 9 Reduction

44 grams Kona F-4 Feldspar
12 grams Whiting
70 grams EPK Kaolin
37 grams Flint

2% Red Iron Oxide

MSU-8  Barium Matt  Cone 9 Reduction

73 grams Kona F-4 Feldspar
30 grams Whiting
15 grams C+C Ball Clay
12 grams Zinc Oxide
32 grams Barium Carbonate
30 grams Rutile

2% Red Iron Oxide+2% Manganese Dioxide
2% Red Iron Oxide+1% Copper Carbonate
2% Red Iron Oxide+1% Cobaltic Oxide
2% Black Nickel Oxide

MSU-5  Smooth Semi Matt  Cone 9 Reduction

62 grams Kona F-4 Feldspar
19 grams EPK Kaolin
22 grams Whiting
10 grams Zinc Oxide
7 grams Flint
Shaner Red  Matt  Cone 9 Reduction

51 grams Custer Feldspar
30 grams EPK Kaolin
20 grams Whiting
11 grams Bone Ash
4 grams Talc

2% Red Iron Oxide

Katy's Yellow  Matt  Cone 9 Reduction

50 grams Nepheline Syenite
23 grams Barium Carbonate
10 grams Dolomite
10 grams Zircopax
4 grams Tennessee Ball Clay
3 grams Tin Oxide
3 grams Red Iron Oxide

Katy's Yellow Modified  Shiny Yellow  Cone 9 Reduction

60 grams Nepheline Syenite
25 grams Barium Carbonate
10 grams Dolomite
10 grams Zircopax
4 grams Tennessee Ball Clay
3 grams Tin Oxide
3 grams Red Iron Oxide

Haystack Eggshell:  Off-White Matt  Cone 9 Reduction

50 grams Kona F-4 Feldspar
20 grams C+C Ball Clay
20 grams Dolomite
5 grams Whiting
5 grams Tin Oxide

2% Red Iron Oxide
Freda's Olive Orange  Shiny Matt  Cone 9 - 10  Reduction

46 grams Nepheline Syenite
55 grams Dolomite
8 grams Whiting
79 grams C+C Ball Clay
71 grams Flint
71 grams EPK Kaolin