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The Ohio State University, Ph.D., 1963
Fine Arts

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A SYNTHESIS IN THE DECORATIVE USE OF TEXTURE:
A PRESENTATION OF CERAMIC PIECES

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

L. Ward Youry, B. S., M. F. A.

The Ohio State University
1963

Approved by

[Signature]
Adviser
Department of Fine Arts
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The writer wishes to acknowledge the friendship, help, and guidance of the following people who helped him to build his career as a practicing designer-craftsman-teacher:

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Ward Youry
Columbus, Ohio
July 7, 1963
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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

Introduction.-- It was the purpose of this study to investigate the many possibilities for enrichment of the surface of ceramic forms with particular emphasis on that type achieved through the method of construction and/or the addition of different types of materials.

Statement of the problem.-- Within the past decade the American potter has been taking a long, hard look at himself and his work in relationship to his time. He has felt a need to revalue what has gone before, to reject, to select and modify that which could be relevant for him; to express what he wants to say to give his artistic expression validity. This is not a study of what has happened, but rather a searching look into the past, and the present, to seek sources for renewed inspiration and the adaptation of old decorative techniques to new ideas. It is hoped the search will reveal new ways of working with, and treatment of, one of the most familiar materials man has found through the ages to be so responsive to his thoughts and feelings - clay.
Justification of the problem.-- A felt need has been apparent to the writer for renunciation of surface glamour and a return to the old relationship of clay to form. By such a procedure his pots would have to stand mainly by their sculptural quality; by the clearness and excellence of their shapes. Decoration would remain secondary to the form in which the main thing would be apparent - the clay. Marguerite Wildenhain echoes the need:

Since life has a way of swinging us, as with the pendulum, from one end to the other, we find in our times that we are now a trifle tired of all those gorgeous colors, of all those decorations. We no longer believe in the values of those too sensuous surfaces, those impressionistic glazes that look like rainbows and cloudy skies, fiery outbursts of volcanoes, desert sunsets or Pacific blues. We are slowly looking for more subdued tones, for a simpler and nearer relation to our original material again. Now that man has learned what he can do with his ceramic techniques, he begins to be selective as to what these convey to him in the expression of his whole life. It is natural and good that our pots should reflect our ideas, and so we see a tendency towards a more structural form and a more dynamic expression of the whole pot, displacing the up-to-now all-important treatment of the surface only. The modern potters will thus show pots with textures cut out directly in the clay, with glazes of a more subdued color range; also pots without glaze, or only partly glazed -- even pots that are not round anymore nor symmetrical but free in form.

The modern potter is trying again to find on his own some ways of forming, in a timeworn and often much abused material, those ideas that occupy him today.

The inventions, tools and procedures, the newly discovered materials, methods and machines
have forced him out of a comfortable and complacent sleep in tradition and convention. The values of a hundred years ago are not his any more and he has found out that he has to go back to a more basic, sounder treatment of his pottery, to something that is nearer the original and primitive approach of man to clay. We can only welcome this; it is an exciting and hopeful, though difficult situation for the potters, but the effort needed makes us grow—and that is the essential.¹

Limitations of the study.-- It has not been the intention to make this an inclusive study, but to find significant ways of working that would act as a springboard for the experimenter to enter a phase of work that will be a continuing source of creative inspiration long after this study has been completed.

Note will be made of two archaic phases in the history of pottery where it is felt there is significant work which will lend applicable inspiration to the work at hand. Nature forms will be studied. Creative exploration into texture patterns created by students under the supervision of the writer will be observed and commented upon. These aspects will augment the major portion of the dissertation: the exhibition of creative work by the candidate.

Definitions of terms used.— "Enrichment" is understood to mean ornamentation or adornment of surface.

"Pattern" is understood to mean an arrangement or composition that suggests or reveals a design or a configuration.

"Tactile" is understood to mean that which pertains or relates to the sense of touch.

"Texture" is understood to mean that which pertains to surface quality due to the nature of and the manner of construction of any material. It may refer to a tactile sensation, either real or imagined, or it may be a purely visual illusion of texture.

"Vitreous engobe" is understood to mean an engobe which has a very low shrinkage because of the small amount of plastic clay in it, and which matures to a dense opaque coating over the ware.

Organization of remainder of study.— Chapter III is devoted to the listing of the experiments to be tried in the development of the creative work. A schedule indicating the procedure used in firing the kiln is included with the experimental data.

Chapter IV is divided into two parts: (1) a preface to the exhibition, and (2) a catalog of the pieces presented
in the exhibition. The preface describes the approach to the creative work, how the work got started, was carried on, and progressed from one form-idea to another. The catalog describes in detail each pot made and shown in the exhibition.
CHAPTER II

REVIEW OF THE LITERATURE

**Historical review.**—It is all-important to a potter, and he will find it exceedingly interesting and instructive to look at the pottery of other centuries and other cultures to see what they have done, and how.

Everything we see builds up in our minds a richer and wider store of form elements, of ideas, of methods and techniques that will in turn become assimilated within us to a totality which emanates from our innermost being.²

A comprehensive review of the history of pottery has revealed two areas of historical significance that provide inspiration to the current study: (1) selected examples of work from the Shang and Han Dynasties of China, and (2) selected examples of prehistoric Japanese Jomon and Sue pottery. Both areas were chosen because they represent an approach to pottery making where the emphasis was on the relation of clay to form and surface treatment. It remains to be determined if there is a time connection between the two. J. Edward Kidder in his extensive study of "The Jomon Pottery of Japan" believes the connection is possible. He states:

²Ibid., p. 101.
Two vessel shapes are close to objects of the Late Chou Dynasty, and although the Chinese types were carried over into the Han Dynasty with some changes, the Kasori phase is both pre-Angyo and before a formal Yayoi phase (i.e., a time earlier than the Han Dynasty), so it could only be the Late Chou prototypes that might have a bearing on the Jomon ware.³

The titles "Shang and Han" came from two ruling dynasties in China's history. The term "Jomon" was first used to describe this prehistoric Japanese pottery because translated it meant "rope design", referring to the decorative method of construction suggesting coils of rope. The same term has come to be applied to the culture as a whole. To the earliest specimens of true pottery in Japan, literary sources dealing with the period gave the name Sue ware, and the designation is still used today.

Technically, the pottery of the Archaic Chinese was superior to that of the Prehistoric Japanese. The Chinese pots were hand-made of a more durable clay and often finished with a low-fire lead-bearing glaze. The Japanese pots were always hand-made, often by the coiling process, and were baked in an open fire at a temperature between 400° and 500° C.

Both iron oxide and a lacquer substance were occasionally employed to cover the outer surface. Vessels may at times be highly polished, and in the late periods some give evidence of having been smoked or covered with soot before polishing.  

Several selected examples from the Shang and Han Dynasties were chosen to evaluate their textural treatment. PLATE I^5, page 9, is a rare white pottery jar of the Late Shang Dynasty. The clay was unglazed and the design was carved employing a horizontal S squeezed as it were into a rectangular form and made up of angles instead of curves. The chevron pattern containing the horizontal S gives a rhythmic all-over texture to the surface relieved only at the top by a horizontal band and two projecting knobs and spout executed in stylized animal heads. This patterned texture was undoubtedly created when the pot was in the leather-hard stage by scoring and carving into the surface.

PLATE II^6, page 10, is a three-footed vessel of dark, hard-fired, grey clay in the form the Chinese called a "Li" (or hollow-legged Ting). Warren E. Cox states:

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^4Ibid., p. 7.


PLATE I

WHITE POTTERY JAR OF THE LATE SHANG DYNASTY
PLATE II

LI CAULDRON OF THE SHANG DYNASTY
It is my theory that the earliest potters in China as elsewhere made pointed-bottomed beakers, and that, finding that three of these could be leaned together over a fire, some bright potter thousand of years ago, made up his mind that he would put the three together and give them a common mouth, thus making a Li.¹

The outside of this pot has been enhanced by heavy texture achieved by beating the surface with a stick on which one end was wrapped with cord. The texture was a result of the application of the technique, and also served to knit together the pieces of clay used in building the pot, to make it stronger.

PLATE III⁸, page 12, is an ornamental brick, 22" high, of dark grey pottery clay from the Han Dynasty. A stag's head was moulded in high relief. Stamped ornaments consisting of (1) tiger-masks and rings, (2) a palm tree between two buildings, (3) a chariot, (4) a lozenge diaper, and (5), borders of matting pattern have been used. This illustrates the impressionable quality of clay as was achieved by pressing previously made stamps of either bisqued clay or carved wood into the plastic clay.


PLATE III

ORNAMENTAL BRICK OF THE HAN DYNASTY
PLATE IV, page 14, is a "Hill" jar of the Han Dynasty. Its red earthenware body is covered with a thick, green glaze which has turned iridescent in part. This pot was selected because of the three-dimensional modeling over the surface showing a mountain surrounded by waves and a relief band of animals. It suggests the possibility of modeling the clay while in a semi-plastic state.

PLATE V, page 15, is a Jomon earthenware urn.

The narrowest part of the base has been left plain, while the upper two-thirds of the flaring urn has, in contrast, been divided by a mock cord pattern into four equal panels, each of which has then been filled with a shallow incised design of three whirlwinds on a ground of parallel lines. Here again the patterned texture was undoubtedly created when the pot was in the leather-hard stage by scoring and carving into the surface.

Another Jomon earthenware urn, PLATE VI, page 16, is particularly plastic in feeling.

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11 Ibid., p. 19.
12 Ibid., plate 2.
PLATE IV

"HILL" JAR OF THE HAN DYNASTY
PLATE V

EARTHEWARE URN OF THE JOMON PERIOD
PLATE VI

EARTHENWARE URN OF THE JOMON PERIOD
This vessel is striking for the elaborate and highly fanciful decoration into which the flaring lip has been worked, as well as for the treatment of the body. Here there has been no attempt to smooth away the evidence of the coiling technique by which such pre-wheel vessels were constructed; rather the potter has here emphasized it as much as possible, piling up thick clay coils upon his base piece and leaving their outer surfaces untouched except for the addition of decorations to emphasize the coiled construction.\(^\text{13}\)

The freedom with which the clay has been manipulated is of particular importance. It suggests a close familiarity with the material, so personal that the potter seems to have handled his clay with an abandon and spontaneity that has enabled him to create a work of high artistic value.

PLATE VII\(^\text{14}\), page 18, was thought to be worth noting because of the way in which the clay animal forms were modeled as decorative appendages on the surface.

The figures clustering around the top of the body of the jar are crude but strong in their execution; they show a hunting scene with mounted warriors brandishing bows and short, thick swords and surrounded by various animals.\(^\text{15}\)

They were done in a manner whereby the potter kept uppermost in his mind the nature of the plastic medium with

\(^{13}\)Ibid., p. 19.

\(^{14}\)Ibid., plate 7.

\(^{15}\)Ibid., p. 25.
PLATE VII

SUE WARE JAR OF THE SUE PERIOD
which he worked. He did not lose himself in realism but maintained the form idea. The piercing of the pedestal should be noted; the rippled base is probably due to the fact that the pot was not sitting level in the kiln during the course of the firing.

Review of other studies.-- Marguerite Wildenhain has stated:

Creative work is made of two different and well-separated activities: one all spiritual, I would say--the idea; one all concrete--the making. It is the spiritual--the idea--the inner-most thoughts--the imagination, and the activation and stimulation of ideas that are the subject of this study. Early Chinese and Japanese pottery have been appraised and found to be sources of inspiration. Another approach, the material and the possibilities for surface enrichment open unrealized horizons for experimentation.

To learn the possibilities that lie unborn in the clay, it will be essential to work with it in every imaginable way: to play with it, pinch it, roll and scratch it, to wet, roughen or smooth it; to make it look light and silky, or deeply textured or sculptured, dark and roughly carved; to try to get out of it every single mood and

---

character that lies in it—and all this preferably, with just your fingers. There are innumerable possibilities, and to discover these will be an unending, exciting and creative experiment. There is no limit to ingenious inventiveness. No two people ever make the same patterns.\textsuperscript{17}

Consider some word-images that will help in stimulating ideas to enable us to discover more about texture. Texture is always present on the surface of his clay whether the potter seeks it or not.

Every surface has texture, and an object may have several textures. We learn about textures by touching the surfaces of objects and looking at the way light reflects from these surfaces. Some textures are natural; some are man-made. Some textures we feel, some we see and some we create.

Our first experiences with texture come through our sense of touch. When we touch different objects, we feel that their surfaces differ—and we see that they differ. Textures look different depending upon the way they reflect light. A surface that reflects light unevenly—broken by many small shadows—has a "rough" texture. Surfaces that reflect even amounts of soft, dull light have a "matt" texture. Surfaces that reflect still more light have a "smooth" texture, and a very smooth surface that reflects

\textsuperscript{17}Ibid., p. 24,27.
a great deal of light is called "shiny". So, whether a
texture looks shiny, coarse, matt, smooth, rough, rocky,
bumpy, or fuzzy, depends upon the way in which it re-
fects light.

Man uses paints, tools, and materials to change the
texture of surfaces. He may use sandpaper to change tex-
ture or he may polish surfaces so that they reflect high-
lights. The painter selects and organizes textural sur-
faces by using his brush, a painting knife or even his
fingers. Sculptors are preoccupied with creating differ-
ent textures and likewise, the photographer may also help
us to see texture - today in distant objects, such as the
surface of the moon, or very close, everyday textures we
might overlook.

Our gardens display contrasting textures of plants,
brick, rocks and pebbles. The architect is aware that:

The eye demands some relief from the monot-
ony of "pure" form, and texture seems to be the
ideal compromise: it is nonrepresentational and
it is decorative. Moreover, texture fits in
with the twentieth century conviction (personified
by Frank Lloyd Wright) that natural materials
should be respected - that stone should be treated
like stone, wood like wood, marble like marble,
and metal like metal.18

18"Textures," Industrial Design, (October, 1962),
pp. 86-93.
Others have made us aware of additional aspects of texture.

The texture of an object adds to our enjoyment, often making us wish to touch it or to take it into our hands, in order to enjoy more fully its particular quality. Texture affects color quality. Two pieces of material, one rough and the other smooth, may be dyed with the same color, yet they will not be identical in color for they reflect or absorb light differently. Texture also affects the apparent size of objects. For example, a small glass object, because of its light-catching surface, may appear larger than an object of the same size with a dull finish. Varieties in texture have been used by artists throughout all ages to heighten our enjoyment of color and of form.19

Finally, it is the clay we must consider.

Texture in clay may be of two sorts: one, the texture which is actually a roughness; and the other, a visual impression of texture which results from broken color, spots, specks, or splotches.20

When clay is fired, it becomes hard and stony. Glazes may create other textures.

Through the use of a variety of coloring oxides, matting elements or glossy fluxes, a great many different avenues are open to the potter for giving character to glazes. The mark of the master, however, is a surface texture that gains deeper richness by taking into account the potentialities of the underlying clay. Such an interplay between clay and glaze


brings both a fusion of colors and surfaces that are crystalline or molten, velvety or gritty - results that often rival the most exciting textures to be found in nature.21

Words help with visual images but it is the actual involvement with a material that helps to "crystallize" ones thinking and draw his ideas into focus. Consider the example shown in PLATE VIII, page 24. Here on a slab of clay have been created nine different textures. They were made with only the fingers as tools, by pushing, pressing, pinching, twisting, scoring and as many combinations of these movements as the student could invent. They vary in value from light to dark, white to black, from shallow surface impressions to deep tracks. The first inclination is to push. This always happens as a physical reaction to the challenge at hand. Then, to develop ideas, the student discovers he must begin to think, to invent, to activate his imagination in order to achieve a texture that differs from all the other textures he has created. The challenge is there and each will find that one idea will lead to another and time and ones imagination become the only limiting factors.

PLATE VIII

FINGER TEXTURE TILE
The approach varies with the emphasis. PLATE IX, page 26, shows variations which can be achieved when clay is added to clay to create textures. Here clay has been coiled, cut into strips or pieces, and rolled into balls. These in turn have been pressed, pinched, pierced, pushed and manipulated into patterned textures to reveal the unlimited variations that can be made to embellish ceramic forms with surface enrichment.

The difference between pattern and texture may often be minute. To distinguish between them it will help if we remember that texture appeals strongly to our tactile sense. It also refers to the surface quality created by the manner of construction of any material. It has been said that a wheat field viewed from an airplane gives texture; seen closer it gives pattern; and when one stands in the midst of it, it gives form. This combination of visual and tactile pleasure figures importantly in all designs. Pattern implies the creation of a design, or shape, with intervening spaces separating the segments of the pattern. When these segments are closely related, with minimal space between, they become more closely related to texture. When the segments of the design have as much, or more space between each unit, or even exceed the size of the unit, they become more related to pattern. Also,
PLATE IX

CLAY ON CLAY TEXTURE TILE
pattern is generally thought of as being applied. Richard
Petterson helps in clarifying the meaning.

Surface texture in nature is never a veneer but always an integral element of the material beneath the surface. Many of America's best ceramists are today directly or indirectly influenced by this fact, inspired by nature to originate ceramic textures that express an interrelationship between clay and glaze penetrating the most elemental and structural qualities of the pots themselves.\(^\text{22}\)

A tendency to limit one's self to a two-dimensional surface when considering texture may cause a person to overlook the possibility of manipulating this plane into a three-dimensional surface. This is possible with clay when it has been rolled into a slab (PLATES X, XI, XII, and XIII) or pulled into the wall of a wheel-thrown pot, PLATE LXII. The two tiles in PLATE X, page 28, show how by pushing and scoring the soft, malleable clay, the clay can be moved to create a more three-dimensional surface. Some texturing has also been done with a tool to further enhance the design. PLATE XI, page 29, reveals another approach to a moving surface by piercing the walls. This open penetration of the surface of the clay allows another way for space to become part of the design.

PLATE XIII, page 31, reveals two additional approaches

\(^{22}\text{Ibid., p. 25.}\)
PLATE X

THREE-DIMENSIONAL TEXTURED TILES
PLATE XI

THREE-DIMENSIONAL PIERCED TILES
PLATE XII

THREE-DIMENSIONAL TEXTURED TILES
PLATE XIII

THREE-DIMENSIONAL SCULPTURED TILES
to the three-dimensional surface. The top tile is strongly sculptural in feeling with heavy modeling from both sides of the slab in addition to some piercing of the surface. The lower tile has been changed by first slicing the clay slab and then stretching and moving the clay back and forth to gain a three-dimensional surface.

While the writer did not personally become involved in hand-building techniques in the creating of his own work, as presented in this study, certain additional approaches to textural treatment are hereby presented although they relate to texture which can be achieved by building with coils. PLATES XIV AND XV, pages 33 and 34, reveal some contemporary possibilities for achieving textural designs by knitting together coils in this ages-old technique of hand-building. The clay coils, if strongly moved into each other, usually need no further working together to make a pot structurally sound. If, however, designs such as the upper and lower coil humps in PLATE XIV, and the hump furthest to the left in PLATE XV, are employed as surface enrichment, the reverse side of these coils must be smeared and worked together to make them structurally strong.

Yet another facet of exploration has led to the consideration of certain nature forms. Two sentences from
PLATE XIV

TEXTURED COIL HUMPS
PLATE XV

TEXTURED COIL HUMPS
Marguerite Wildenhain's definitive work, "Pottery: Form and Expression", serve to amplify this thought:

At this point, you may have found out how instructive and inspiring it is to look deep into the forms of life around you. Plants, rocks, faces, everything that you run across and look at are part of the store of visual impressions out of which, in the end, will come the forms and ideas that you will use in your pottery.23

Five PLATES (Nos. XVI24, XVII25, XVIII26, XIX27, and XX28, page 36 to page 40) reveal various shapes of seed pods to inspire the potter to new form ideas. The undulating surface of the pod in PLATE XVI suggests the possibility of moving the freshly thrown walls of a pot, with the fingers, into a strongly three-dimensional surface. Another approach might be to beat the surface of an almost leather-hard pot into a similar shape (PLATE XXVII, page 76). The seed pod in PLATE XVII looks almost like a

23 Wildenhain, op. cit., p. 87.
25 Ibid., p. 43.
26 Ibid., p. 48.
27 Ibid., p. 47.
28 Ibid., p. 49.
PLATE XVI

TEXTURED SEED POD
PLATE XVII

TEXTURED SEED POD
PLATE XVIII

TEXTURED SEED PODS
PLATE XIX

TEXTURED SEED POD
PLATE XX

GROUP OF TEXTURED SEED PODS
covered jar. The textured surface suggests a heavily
grogged clay body, or perhaps a clay into which combustible
materials have been wedged. When fired in the kiln these
materials would be lost, and reveal a similar pitted surface.

PLATE XVIII reveals two similar seed pods with heavily
patterned, textured surfaces. It would be entirely possi-
ble to achieve similar textures on the surfaces of pots by
manipulating the pliable clay with the fingers and/or by
adding additional clay to the surface to achieve textures
strong in value. The pod in PLATE XIX suggests another
inspirational idea to create a clay surface with heavily
textured protrusions.

Finally, PLATE XX was selected because the rows of
seed pods look like shelves of pots. The variation in
shape, size, proportion and surface would offer an unending
source of form-ideas to the studio potter.
CHAPTER III

EXPERIMENTAL DATA

Experiments were conducted only to develop a variety of colors and textures with which the creative work could be enriched. Clay bodies, engobe and glaze formulas were those used and developed under the supervision of the writer in the ceramics area at Long Beach State College. Some of the formulas were modified, due to the substitution of similar materials, in the ceramics area at The Ohio State University where all the creative work presented in this dissertation was accomplished.

The firing schedule was one perfected over a period of six years of firing kilns at Long Beach State College. The kilns, made by the Advanced Kiln Co. of Los Angeles, California, were exactly like the Advanced Kiln used at The Ohio State University so the same firing schedule was used with excellent results. It is presented in Table 1, page 44.

The clay bodies used were commercially prepared stoneware bodies for which the formulas are not available. Stoneware body WC33 was manufactured by the Westwood Ceramic Supply Co. of Venice, California. The Red Italian Terra Cotta Stoneware and the Hill Blue Stoneware were two clay
bodies the writer had in his possession for several years. They were manufactured by the Italian Terra Cotta Co. of Los Angeles, California, and are no longer used since their price greatly exceeds that of the clay bodies manufactured by the Westwood Ceramic Supply Co. It was found that the Italian Terra Cotta Stoneware, after aging, was too plastic for use. Following this discovery, the remainder of this clay was added to the remainder of the WC 33 stoneware and the two were reprocessed together. The result was a stoneware body superior to either by itself in throwing qualities and produced a dark brown body when submitted to a reduction fire.

From a series of twenty-eight color tests, ten colored engobes were selected and made as they were considered to be the most satisfactory colors. They appear in conjunction with the engobe formula listed in the Appendix, page 124.

Since glazes, as such, were only used to increase the function of certain of the pots, they were de-emphasized, and only those colors were created where it was felt they would augment the colors of the engobes and clay bodies. They appear in conjunction with the glaze formulas listed in the Appendix, page 124.
<table>
<thead>
<tr>
<th>Time</th>
<th>Middle Burners</th>
<th>Side Burners</th>
<th>Damper</th>
<th>Reduction Burners</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:00 PM</td>
<td>1&quot;</td>
<td>-</td>
<td>open</td>
<td>-</td>
<td>Middle burners on at 1&quot; pressure.</td>
</tr>
<tr>
<td>7:00 PM</td>
<td>3&quot;</td>
<td>-</td>
<td>closed to 4&quot;</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8:30 AM</td>
<td>-</td>
<td>3&quot;</td>
<td>&quot;</td>
<td>-</td>
<td>Middle burners off, side burners on.</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>-</td>
<td>4&quot;</td>
<td>&quot;</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>11:00 AM</td>
<td>-</td>
<td>5&quot;</td>
<td>&quot;</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>12:00 AM</td>
<td>-</td>
<td>4&quot;</td>
<td>close to full 1&quot;</td>
<td>-</td>
<td>Approximately 1350° F. in kiln, red-orange color.</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>-</td>
<td>4&quot;</td>
<td>&quot;</td>
<td>-</td>
<td>Good back pressure, blackish-red flames at damper.</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>-</td>
<td>4&quot;</td>
<td>open to 2&quot;</td>
<td>full</td>
<td>More flame at dampers, flames orange in color.</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>-</td>
<td>&quot;</td>
<td>open 1&quot;</td>
<td>&quot;</td>
<td>Have cross bar even with edge of kiln.</td>
</tr>
<tr>
<td>4:20 PM</td>
<td>-</td>
<td>4&quot;</td>
<td>more</td>
<td>same</td>
<td>Cone 8 over at top, cone 11 down at bottom.</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>Kiln off</td>
<td></td>
<td></td>
<td>off</td>
<td>Oxidize for 20 minutes.</td>
</tr>
</tbody>
</table>
General Remarks: This kiln was fired numerous times, always following this schedule, and always with the same excellent results.

The reduction burners should remain on full until sufficient back pressure has built up. It may be necessary then to cut back on the gas pressure.

A good orange color should be seen in the flames escaping from the damper; if they are too dark it is indicative of too much carbon, and the reduction burners should be cut back.

The flames should shoot up from the damper a distance of 12" to 16" in a constant pressure. If this is not the case, close the dampers a little until the right flame condition prevails.
The following experiments were tried:

I. Textural enrichment was achieved by wedging the following materials into the clay bodies. They were used singly or in combination, and were used to alter either the appearance and/or the texture of the clay.

A. Noncombustible materials.
   1. Grog made from Albany Slip.
   2. Commercially prepared buff grog.
   3. Vermiculite.
   4. Granular oxides or minerals:
      a. granular manganese.
      b. granular ilmenite.
      c. granular magnetite.
      d. granular rutile.

B. Combustible materials.
   1. Crushed corn cobs.

II. Textural enrichment was achieved by using the vitreous engobe:

A. by pouring.
B. by dipping.
C. by the application of textured fabrics dipped in the engobe.
D. by the application of engobe in impasto form.
E. by the application of noncombustible materials to or on the engobe.

F. by the developing of textural surfaces through repelling of the engobe from certain areas, (wax resist).

III. Textural enrichment was achieved by applying clay on clay:

A. through altering the thrown form, (cutting and beating).

B. through beating on the applied clay.

IV. Textural enrichment was achieved by changing the surface:

A. through impressing the fingers.

B. through impressing found objects.

V. Textural enrichment was achieved by the use of four glazes found to accentuate tactile qualities:

A. Glaze #1 - MG2 - a waxy, smooth opaque matt.

B. Glaze #2 - Stony - a thick, smooth matt.

C. Glaze #3 - Lepidolite matt - a thin glaze matt which accentuates some colors.

D. Glaze #4 - Moscoff semi-matt - a thick, viscous glaze which accentuates some colors.
CHAPTER IV

THE EXHIBITION

Preface to the exhibition. The exhibition presented as the major portion of the dissertation was conceived in its entirety during one prolonged period of creative work. This was felt to be necessary to give the work continuity. It thus provided a logical development to the form-idea, the technique and the finished work. As the senses developed freely, new forms began to grow naturally and boldly from the fingers. New proportions were given to old objects and new shapes were discovered; outlines and volumes were able to be secured because the hand had been well-trained. The pots seemed to come alive and each day found them being made more easily and vigorously, without inhibition and restraint.29

This is a creative century in which we live and the artist has turned to look within himself and his society to find inspiration and expression, from his own experience in life, from his contact with nature and a variety of materials,

29Wildenhain, op. cit., p. 96.
from his attitude toward man or woman, singly and in general and above all, from his relationship with evil and good, and his belief in God.\textsuperscript{30}

Thus, the work began. It was decided the clay would be approached in a different way than the writer had ever experienced previously. The discipline of the wheel has always captivated his interest and it was decided to limit the work to wheel-thrown forms. The first pots to come forth were made so they could be inverted and possibly take on another shape from that in which they were first thrown. The weed pots, PLATES XXI and XXII, were the result. The idea then emerged to explore the possibility of removing the bottom completely, but retain the shape and model and texture the interior to suggest seed pod forms. PLATES XXIII, XXIV, XXV, and XXVI came into being. This led to the next idea to alter the original shape by beating the stiffened clay with most any piece of wood which would lend itself to use as a paddle. PLATES XXVII, XXVIII, XXIX, XXX, and XXXI came forth with the additional approach of altering the top rims by beating the stiffened clay with round pieces of wood of various sizes.

The idea ran its course for the time being and devoid

\textsuperscript{30}Ibid., p. 105.
of a new approach, the writer turned to the remaking of familiar shapes, PLATES XXXII, XXXIII, XXXIV, XXXV, XXXVI, XXXVII, XXXVIII, and XXXIX. These pots were completed by dipping them into glaze or by pouring the glaze to create a contrast in value through thin and thick applications. PLATES XL and XLI were decorated with brush work to create a patterned texture on the surface.

The clay body was then altered to vary the texture. Albany Slip, made into grog, crushed corn cobs and vermiculite were added separately or in various combinations to achieve texture: PLATES XLII, XLIII, XLIV, and XLV. Three vases, PLATES XLVI, XLVII, and XLVIII were made and when leather-hard, their walls were altered by beating them with a string covered wooden paddle.

It was then decided to see what the effect would be by pouring a small amount of engobe slowly on a pot. An interesting decorative pattern emerged on the bottles shown in PLATES XLIX and L. The engobe seemed to accentuate the shapes of the bottles. In repeating this technique a less contrived feeling could be achieved by adding the grog to the engobe rather than by sprinkling it on the surface.

Next a few engobes were stiffened to a dough consistency, and these were smeared on the walls of three pots,
(PLATES LI, LII, and LIII), in an impasto technique, achieving another variation of surface texture.

Clay was then modeled on the surface of four almost leather-hard pots, (PLATES LIV, LV, LVI, and LVII), to explore the possibility of a more accentuated patterned texture.

Wax-resist was tried on one piece. A linear pattern was scratched through the wax; into the line an engobe was painted to create a raised line texture.

Another interesting technique, which offers possibilities for further development, was explored by taking shapes cut from heavily textured materials (i.e., burlap, cheese cloth, monk's cloth, etc), and submerging these materials into engobe. After being thoroughly saturated, they were then applied to the surface of the bowl in PLATE LIX where they were pressed firmly into place. During the firing the material burned away leaving the various colored engobes still retaining the texture of the original material.

The pots were now growing in size, as had been hoped they would, to give scale to the exhibition. The walls of four pieces (PLATES LX, LXI, LXII, and LXIII) were enriched with heavy texture by pressing "found" objects (i.e., anything that can be held in the hand and pressed into the soft wall of a slightly stiffened clay) into the surface.
This technique grew into a stronger three-dimensional texture until in the final piece, PLATE LXIII, we see a texture that has a wide range of value, and a strong feeling of motion as it changes and moves over the surface from one area to another.

Detailed descriptions of each work in the show are included in the catalog.
CATALOG OF PIECES PRESENTED IN THE EXHIBITION

1. Weed Vase With Orange-brown Engobe

Stoneware. Height 7\(\frac{1}{2}\) in.; diameter 6\(\frac{3}{4}\) in.

The weed vase was made from stoneware clay body WC33, firing to a buff color at cone 9. It was dipped into orange-brown engobe into which lines were scratched to reveal the color of the clay body. The pot was made by inverting a bottle shape, removing the bottom, and pinching together the walls. The edge then became the top and was beaten with a stick for additional texture. Three holes were pierced in the sides to hold the weeds. This weed vase is illustrated in PLATE XXI, page 68.

2. Weed Vase With Black Engobe

Stoneware. Height 8\(\frac{1}{2}\) in.; diameter 6 in.

The weed vase was made from stoneware clay body WC33, firing to a buff color at cone 9. The top and base were dipped into a black engobe. The pot was made by inverting a bottle shape and tipping the body slightly off center. Three holes, varying in size, were pierced in the top to hold dry weeds. This weed vase is illustrated in PLATE XXII, page 69.

3. Compote With Orange-brown Engobe

Stoneware. Height 6\(\frac{3}{4}\) in.; diameter 6\(\frac{1}{2}\) in.

The compote was made from stoneware body WC33, and fired to cone 8\(\frac{1}{2}\). The pot was made by inverting a bottle shape, removing the bottom, and then sealing the neck (the pedestal) with clay from the removed bottom. An orange-brown engobe was poured over the exterior; the poured glaze on the interior was plain MG2. The compote is illustrated in PLATE XXIII, page 71.

4. Pod Vase With Scratched Texture

Stoneware. Height 7 in.; diameter 4\(\frac{3}{4}\) in.
The pod vase was made from stoneware clay body WC33, firing to cone 8. The pot was made by inverting a bottle shape. Alternating patterns of texture were scratched into the side with the point of a paring knife. A light blue lepidolite matt glaze was poured on the interior; the exterior was left unglazed and fired to a light brown color. The pod vase is illustrated in PLATE XXIV, page 72.

5. Pod Compote
Stoneware. Height 5\(\frac{1}{2}\) in.; diameter 5\(\frac{1}{2}\) in.

The pod vase was made from stoneware clay body WC33, firing to cone 8. The pot was made by inverting a bottle shape, removing the bottom, and then sealing the neck with clay from the removed bottom. The inside was then textured and modeled into the form of an open bud. The poured glaze on the interior is a light green lepidolite matt. The compote is illustrated in PLATE XXV, page 73.

6. Pod Compote
Stoneware. Height 5\(\frac{1}{4}\) in.; diameter 5\(\frac{1}{4}\) in.

The pod vase was made from stoneware clay body WC33, firing to cone 8. The pot was made by inverting a bottle shape, removing the bottom, and then sealing the neck with clay from the removed bottom. The inside was then textured and modeled into the form of an open bud. The poured glaze on the interior is plain lepidolite matt. The compote is illustrated in PLATE XXVI, page 74.

7. Pod Vase With Sculptured Shape
Stoneware. Height 7 in.; diameter 5\(\frac{1}{2}\) in.

The pod vase was made from red Italian terra cotta stoneware clay firing to cone 8. The pot was made by inverting a bottle shape, removing the bottom, and then sealing the neck with clay from the removed bottom. The inside was textured; the outside was
beaten into melon shaped segments and covered with a thin coat of speckled white engobe. The poured glaze on the interior is plain lepidolite matt. The vase is illustrated in PLATE XXVII, page 76.

8. Pod Vase With Sculptured Rim

Stoneware. Height 8 in.; diameter 5½ in.

The pod vase was made from red Italian terra cotta stoneware clay firing to cone 8. The pot was made by inverting a bottle shape, removing the bottom, and then sealing the neck with clay from the removed bottom. The rim was beaten into petal-like shapes. The exterior was covered with a dark brown engobe into which vertical lines were scratched. The poured glaze on the interior is plain lepidolite matt. The vase is illustrated in PLATE XXVIII, page 77.

9. Pod Vase With Sculptured Rim

Stoneware. Height 8 in.; diameter 4½ in.

The pod vase was made from red Italian terra cotta stoneware clay firing to cone 8. The pot was made by inverting a bottle shape, removing the bottom, and then sealing the neck with clay from the removed bottom. The rim and body was beaten with a rolling pin into a square shape with rolled rim. The exterior was covered with a dark brown engobe. The poured glaze on the interior is Moscoff green. The vase is illustrated in PLATE XXIX, page 78.

10. Sculptured Vase With Iron Stain

Stoneware. Height 8 in.; diameter 6½ in.

The sculptured vase was made from stoneware clay body WC33, firing to cone 8. The pot was made by inverting a bottle shape, removing the bottom, and then sealing the neck with clay from the removed bottom. The outside was beaten into spiral-shaped segments and the rim was altered to a rolled edge. Red iron stain was
CATALOG—Continued

painted on the outside; the poured glaze on the interior was a saturated iron lepidolite matt. The vase is illustrated in PLATE XXX, page 79.

11. Bowl With Sculptured Rim
Stoneware. Height 8 1/2 in.; diameter 8 1/2 in.

The sculptured bowl was made from stoneware clay body WC33, firing to cone 8. The pot was made by throwing a bowl, then throwing a pedestal on the inverted bowl. The edge was cut and beaten into a rolled lip. The interior was textured; the poured glaze on the interior was plain lepidolite matt. The bowl is illustrated in PLATE XXXI, page 80.

12. Branch Vase With Stony Glaze
Stoneware. Height 11 1/4 in.; diameter 7 1/2 in.

The branch vase was made from red Italian terra cotta stoneware clay firing to cone 9. The pot was made by throwing a bottle shape. Stony glaze containing 5% iron was poured on the interior and over the exterior. The vase is illustrated in PLATE XXXII, page 82.

13. Branch Vase With MG2 Glaze
Stoneware. Height 10 in.; diameter 6 3/4 in.

The branch vase was made from a combination of the red Italian terra cotta stoneware clay and WC33, firing to cone 8 1/2. Granular manganese was wedged into the clay body. The poured glaze on the interior and over the exterior was a blue-violet MG2 containing granular ilmenite. The vase is illustrated in PLATE XXXIII, page 83.

14. Pitcher, Granular Manganese in Body
Stoneware. Height 7 1/4 in.; diameter 4 3/4 in.

The pitcher was made from a combination of the red Italian terra cotta stoneware clay and WC33, firing to cone 8 1/2. Granular manganese was wedged into the clay body producing a brown clay with black specks. The poured glaze on the interior was plain MG2; the
exterior was dipped into the same glaze to cover the collar and make a bib of glaze below the pouring lip. The pitcher is illustrated in PLATE XXXIV, page 84.

15. Pitcher, Granular Manganese in Body

Stoneware. Height 6 1/2 in.; diameter 4 1/2 in.

The pitcher was made from a combination of the red Italian terra cotta stoneware clay and WC33, firing to cone 8 1/4. Granular manganese was wedged into the clay body producing a brown clay with black specks. The poured glaze on the interior was MG2 "butter" glaze, a soft yellow. The exterior was dipped over the front to make a bib below the pouring lip, and at the back to cover the handle. The pitcher is illustrated in PLATE XXXV, page 85.

16. Shallow Bowl With MG2 "Butter" Glaze

Stoneware. Height 2 in.; diameter 11 in.

The bowl was made from a combination of the red Italian terra cotta stoneware clay and WC33, firing to cone 8 1/4. The clay fired to a warm, brown color. The bowl was dipped into the MG2 "butter" glaze; the first time completely, the second time two thirds of the area, the third time one third of the area to make three divisions of thin, medium thick and thick in the application of the glaze. The color is soft yellow with specks. The bowl is illustrated in PLATE XXXVI, page 86.

17. Shallow Bowl With MG2 Glaze

Stoneware. Height 2 1/2 in.; diameter 10 3/4 in.

The bowl was made from a combination of the red Italian terra cotta stoneware clay and WC33, firing to cone 8 1/4. The clay fired to a warm, brown color. The bowl was dipped in plain MG2 glaze; the first time completely, the second time two thirds of the area, the third time one third of the area to make three divisions of thin, medium thick and thick in the application of the glaze.
The color is tan, gray and white. The bowl is illustrated in PLATE XXXVII, page 87.

18. Compote With Orange-brown Engobe

Stoneware. Height 4 3/4 in.; diameter 9 3/4 in.

The compote was made from a combination of the red Italian terra cotta stoneware clay and WC33, firing to cone 9. The clay is a warm, brown color. Orange-brown engobe was poured over the interior and exterior. Moscoff blue-green glaze was then poured over the inside. The compote is illustrated in PLATE XXXVIII, page 88.

19. Vase With Yellow Engobe

Stoneware. Height 8 1/2 in.; diameter 4 1/2 in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8 1/2. The clay is a dark brown color. Vertical lines were scored in the wall of the body and filled with yellow engobe in the Mishima technique. The poured glaze on the interior is plain MG2. The vase is illustrated in PLATE XXXIX, page 89.

20. Vase With Iron Brush Work

Stoneware. Height 10 1/2 in.; diameter 4 1/2 in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8 1/2. The pot is both inside and outside covered with a blue-violet MG2 waxy matt glaze. An in-glaze decoration using red iron stain was applied on the exterior using small brush strokes. The manner in which the brush work was applied created a patterned texture that also gave a feeling of movement over the surface of the pot. The vase is illustrated in PLATE XL, page 91.

21. Bowl With Iron and Manganese Stain

Stoneware. Height 6 in.; diameter 8 1/4 in.
22. Planter, Albany Slip Grog in Body

Stoneware. Height 11 in.; diameter 10 in.

The planter was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. The predominant material, to achieve the texture, was Albany slip made into a heavy grog. Buff grog, crushed corn cobs and vermiculite were also added to the clay body. The color is brown with dark glassy beads where the Albany Slip has fused. No glaze was used. The planter is illustrated in PLATE XLII, page 94.

23. Floor Vase, Crushed Corn Cobs, Large Grog and Vermiculite in Body

Stoneware. Height 19 3/4 in.; diameter 11 in.

The floor vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. Crushed corn cobs, coarse grog and vermiculite were wedged into the body; this combination was very difficult to throw. The color is brown; the interior is coated with black engobe. The vase is illustrated in PLATE XLIII, page 95.

24. Vase, Albany Slip Grog and Crushed Corn Cobs in Body

Stoneware. Height 14 in.; diameter 4 1/2 in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. Buff grog, Albany Slip grog and crushed corn cobs were added to the body to achieve additional texture. The
interior was first coated with a speckled white engobe and then covered with a coat of plain MG2 waxy matt glaze. The interior is white; the exterior is brown with beads of dark brown glass where the Albany Slip grog has fused. The vase is illustrated in PLATE XLIV, page 96.

25. Branch Vase, Fine Albany Slip Grog in Body
Stoneware. Height 11\(\frac{1}{2}\) in.; diameter 9\(\frac{1}{2}\) in.

The branch vase was made from stoneware clay body WC33, firing to cone 8. Fine Albany Slip grog was wedged into the body which fired to a buff color with small specks of brown glass beads where the Albany Slip grog had fused. The interior is coated with black engobe. The branch vase is illustrated in PLATE XLV, page 97.

26. Vase With Orange-brown Engobe
Stoneware. Height 13\(\frac{1}{2}\) in.; diameter 4\(\frac{1}{2}\) in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8\(\frac{1}{2}\). The pot was beaten into a four-sided cylinder over which orange-brown engobe was poured. The interior was coated with the MG2 "butter" glaze, and the same glaze was poured in panels on the four sides. The color is soft yellow where the glaze covers the engobe, and dull orange where the engobe is exposed. The vase is illustrated in PLATE XLVI, page 99.

27. Vase With Beaten Grooves
Stoneware. Height 7\(\frac{1}{2}\) in.; diameter 5\(\frac{1}{4}\) in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8\(\frac{1}{2}\). Before the leather-hard stage, the walls of the vase were beaten into diagonal grooves. The poured glaze on the interior and the neck of the vase was blue-violet MG2 with granular ilomite which came to the surface of the glaze to impart a speckled texture.
CATALOG--Continued

The color of the clay is dark brown. The vase is illustrated in PLATE XLVII, page 100.

28. Vase With Dark Brown and Orange-brown Engobe

Stoneware. Height 8 in.; diameter 6 \( \frac{1}{2} \) in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. The vase was beaten into an octagonal shape. Alternate stripes of dark brown and orange-brown engobe were poured on the sides. These became dark brown and light brown in color against the brown of the clay body. The poured glaze on the interior was plain lepidolite matt. The vase is illustrated in PLATE XLVIII, page 101.

29. Bottle With Orange-brown Engobe and Fine Grog

Stoneware. Height 13 \( \frac{1}{2} \) in.; diameter 5 in.

The bottle was made from red Italian terra cotta stoneware clay firing to cone 8. A small amount of thick orange-brown engobe was poured on the exterior where it followed the contours of the bottle. A small amount of fine buff glog was sprinkled on the wet engobe. The color is light brown against the dark brown of the clay body. The bottle is illustrated in PLATE XLIX, page 103.

30. Bottle With Yellow-green Engobe and Albany Slip Grog

Stoneware. Height 13 \( \frac{1}{2} \) in.; diameter 5 in.

The bottle was made from red Italian terra cotta stoneware clay firing to cone 8. A small amount of thick yellow-green engobe was poured on the exterior where it followed the contours of the bottle. A small amount of Albany Slip glog was sprinkled on the wet engobe. The color is yellow-green against the brown of the clay body. The Albany Slip glog fused to a dark brown glass. The bottle is illustrated in PLATE L, page 104.
31. Vase With Impasto Texture

Stoneware. Height 11\(\frac{1}{4}\) in.; diameter 4\(\frac{3}{4}\) in.

The vase was made from stoneware clay body WC33 into which granular ilmenite was wedged. The pot was fired to cone 8\(\frac{1}{2}\). A warm light green engobe was thickened to a dough consistency, made into small balls and then smeared in one direction on the belly of the vase. The poured glaze on the interior is plain MG2. The color of the clay body is a dark buff. The vase is illustrated in PLATE LI, page 106.

32. Bowl With Impasto Texture

Stoneware. Height 9 in.; diameter 7 3/8 in.

The bowl was made from stoneware clay body WC33, firing to cone 8\(\frac{1}{2}\). Black engobe was thickened to a dough consistency, made into small balls and then smeared in one direction over the exterior of the bowl. The poured glaze on the interior is plain MG2. The color is white against black. The bowl is illustrated in PLATE LII, page 107.

33. Branch Vase With Impasto Texture

Stoneware. Height 12 in.; diameter 9\(\frac{1}{2}\) in.

The vase was made from stoneware clay body WC33, firing to cone 9. Black, light blue and speckled white engobe was thickened to a dough consistency, made into small balls and then smeared in alternate horizontal layers over the exterior of the vase. The interior was coated with black engobe. The color is light blue, black, and white against the buff color of the clay body. The vase is illustrated in PLATE LIII, page 108.

34. Vase With Modeled Texture

Stoneware. Height 8\(\frac{3}{4}\) in.; diameter 4 3/4 in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8.
Granular ilmenite was wedged into the clay body. Balls of the same clay were modeled and fastened to the belly of the vase to create a decorative accent. The color is warm brown with black specks. The poured glaze on the interior is the MG2 "butter" glaze, a soft yellow. The vase is illustrated in PLATE LIV, page 110.

35. Vase With Modeled Texture

Stoneware. Height 9¼ in.; diameter 5 in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. Granular ilmenite was wedged into the clay body. Balls of the same clay were modeled and fastened to the belly of the vase to create a decorative accent. The color is warm brown with black specks. The poured glaze on the interior is the MG2 "butter" glaze, a soft yellow. The vase is illustrated in PLATE LV, page 111.

36. Vase With Modeled Texture

Stoneware. Height 9¼ in.; diameter 3 3/4 in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. Balls of the same clay were modeled, pierced and fastened to the belly of the vase to create a decorative texture. The color is warm brown. The poured glaze on the interior is the MG2 "butter" glaze, a soft yellow. The vase is illustrated in PLATE LVI, page 112.

37. Vase With Modeled Texture

Stoneware. Height 13½ in.; diameter 5½ in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. Balls of the same clay were modeled and fastened to the neck of the vase to create a decorative accent. The exterior of the vase is covered with black engobe; speckled white engobe was poured over the interior and
later covered with plain MG2 matt glaze. The color is white against black. The vase is illustrated in PLATE LVII, page 113.

38. Punch Bowl With Wax-resist Texture

Stoneware. Height 13½ in.; diameter 12½ in.

The punch bowl was made from stoneware clay body WC33, firing to cone 8. A light blue engobe was first painted on the body in circular shapes and on the pedestal of the bowl. This, in turn, was covered with wax emulsion into which a linear pattern was scratched. Three different shades of green engobe were painted into the scratched areas. The color of the clay body is dark buff. Plain MG2 waxy, matt glaze was poured over the interior. The punch bowl is illustrated in PLATE LVIII, page 115.

39. Bowl With Textured Material

Stoneware. Height 12 in.; diameter 13½ in.

The bowl was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. Rectangular pieces of dish towel, burlap and monk's cloth, varying in size and shape, were submerged into three different engobes: mahogany red, dark brown and orange-brown. They were then pressed on the exterior of the bowl, alternating in groups of three, to create vertical areas of contrasting texture around the wall of the bowl. Plain MG2 waxy, matt glaze was poured over the interior. The bowl is illustrated in PLATE LIX, page 117.

40. Vase With Three-dimensional Texture

Stoneware. Height 18 3/4 in.; diameter 8½ in.

The vase was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. The almost leather-hard walls of the vase were first pushed out with a pestle and then pushed in in alternating vertical bands of circles. Orange-brown engobe
41. Bowl With Three-dimensional Texture
Stoneware. Height 9\(\frac{1}{4}\) in.; diameter 12\(\frac{1}{2}\) in.

The bowl was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. The almost leather-hard walls of the bowl were pressed into a textured pattern by using small pieces of wood of varying shapes and sizes. Yellow-green, orange-brown, and dark brown engobes were painted in the pressed decoration and then wiped off leaving a minimum amount of the engobe in the texture. Plain MG2 waxy matt was poured over the interior of the pot. The bowl is illustrated in PLATE LXI, page 120.

42. Punch Bowl With Three-dimensional Texture
Stoneware. Height 15\(\frac{1}{2}\) in.; diameter 14 3/4 in.

The punch bowl was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. The almost leather-hard walls of the bowl were pressed in and out by using a pestle and small pieces of wood of varying shapes and sizes. Yellow-green, olive-green, and chrome-green engobes were painted in the pressed decoration and then wiped off leaving a minimum amount of the engobe in the texture. Plain MG2 waxy matt was poured over the interior of the pot. The color of the clay is a dark brown. The punch bowl is illustrated in PLATE LXII, page 121.

43. Urn With Three-dimensional Texture
Stoneware. Height 21 in.; diameter 12 in.

The urn was made from a combination of the red Italian terra cotta stoneware clay with WC33, firing to cone 8. The almost leather-hard walls of the urn were textured with tools of various sizes and shapes; sometimes with
a lead pencil, at other times with pieces of wood of varying shapes and sizes, etc. Clay shapes were also cut and secured to the wall to create a strongly patterned, textured surface. Black, dark brown, orange-brown, yellow, speckled white, tan, and blue engobes were painted in the pressed decoration and then wiped off leaving a minimum amount of engobe in the texture. The color of the clay is dark brown; no glaze was used. The urn is illustrated in PLATE LXIII, page 122. A close-up view of the urn is illustrated in PLATE LXIV, page 123.
EXAMPLES OF WEED VASE FORMS

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WEED VASE WITH ORANGE-BROWN ENGOBE
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WEED VASE WITH BLACK ENGobe
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PLATE XXIII

COMPOTE WITH ORANGE-BROWN ENGOBE
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POD VASE WITH SCRATCHED TEXTURE
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POD COMPOTE
PLATE XXVI

POD COMPOTE
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POD VASE WITH SCULPTURED RIM
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POD VASE WITH SCULPTURED RIM
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PLATE XXXIV

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PLATE XXXV

PITCHER, GRANULAR MANGANESE IN BODY
PLATE XXXVI

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SHALLOW BOWL WITH MG2 GLAZE
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PLATE XLVII

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BOTTLE WITH ORANGE-BROWN ENGOBE

AND FINE GROG
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BOTTLE WITH YELLOW-GREEN ENGOBE
AND ALBANY SLIP GROG
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BRANCH VASE WITH IMPASTO TEXTURE
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VASE WITH MODELED TEXTURE
PLATE LV

VASE WITH MODELED TEXTURE
PLATE LVI

VASE WITH MODELED TEXTURE
PLATE LVII

VASE WITH MODELED TEXTURE
EXAMPLE OF WAX-RESIST TEXTURE

PLATE LVIII
PLATE LVIII

PUNCH BOWL WITH WAX-RESIST TEXTURE
EXAMPLE OF APPLIED TEXTURED MATERIAL

PLATE LIX
PLATE LIX

BOWL WITH TEXTURED MATERIAL
EXAMPLES OF THREE-DIMENSIONAL SURFACE TEXTURE

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VASE WITH THREE-DIMENSIONAL TEXTURE
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BOWL WITH THREE-DIMENSIONAL TEXTURE
PLATE LXII

PUNCH BOWL WITH THREE-DIMENSIONAL TEXTURE
PLATE LXIII

URN WITH THREE-DIMENSIONAL TEXTURE
PLATE LXIV

CLOSE-UP VIEW OF TEXTURED URN
## APPENDIX

### ENGOBE AND GLAZE FORMULAE USED IN THE EXPERIMENTS

#### Vitreous Engobe

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<tr>
<td>Whiting</td>
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</tr>
<tr>
<td>ASP-400 kaolin</td>
<td>20</td>
</tr>
<tr>
<td>Tenn. #7 ball clay</td>
<td>30</td>
</tr>
<tr>
<td>Flint</td>
<td>25</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

Colors:
- **Blue:**
  - Cobalt carbonate . . . . 1%
  - Granular ilmenite . . . . 2%
- **Dark brown:**
  - Red iron oxide . . . . 1%
  - Manganese carbonate . . . . 5%
- **Orange-brown:**
  - Tin oxide . . . . 5%
  - Red iron oxide . . . . 2%
  - Granular ilmenite . . . . 1%
- **Grayed olive:**
  - Nickel oxide . . . . 6%
  - Granular ilmenite . . . . 2%
- **Speckled white:**
  - Titanium . . . . 1%
  - Granular ilmenite . . . . 1%
- **Yellow-green:**
  - Rutile . . . . 5%
  - Copper carbonate . . . . 5%
- **Mahogany red:**
  - Red iron oxide . . . . 8%
- **Speckled gray:**
  - Granular manganese . . . . 3%
  - Grayed green:
    - Granular manganese . . . . 1%
    - Chrome green oxide . . . . 1%
  - Jet black:
    - Black iron oxide . . . . 3%
    - Black cobalt oxide . . . . 2%
    - Manganese dioxide . . . . 2%
  - Blue-violet MG2:
    - Cobalt carbonate . . . . 1%
    - Granular ilmenite . . . . 2%
  - "Butter" MG2:
    - Nickel oxide . . . . 1%
    - Manganese dioxide . . . . 2%
  - Stony Glaze:
    - Barnard clay . . . . 33.
    - Custer feldspar . . . . 50.
    - Whiting . . . . 17.
    - Medium brown stony:
      - Red iron oxide . . . . 5%

#### MG2 Matt Glaze

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<td><strong>Total</strong></td>
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### Lepidolite Matt

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<td>Colemanite</td>
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<td>Flint</td>
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<tr>
<td>Light green lepidolite</td>
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<tr>
<td>Copper carbonate</td>
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<td>Red iron oxide</td>
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### Moscoff Semi-matt

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<tr>
<td>Custer feldspar</td>
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<tr>
<td>Chrome oxide green</td>
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<tr>
<td>Cobalt carbonate</td>
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BIBLIOGRAPHY


I, Leon Ward Youry, was born in Breckenridge, Michigan, August 6, 1916. I received my secondary school education in the village public school of Breckenridge, Michigan. Following my high school graduation, I attended Alma College, Alma, Michigan, for one year, transferring to Central Michigan University, Mt. Pleasant, Michigan, from which I received the Bachelor of Science Degree in 1939. I attended the summer session at Cranbrook Academy of Art, Bloomfield Hills, Michigan, in 1941. After serving four years in the United States Army, I enrolled in the Claremont Graduate School, Claremont, California, from which I received the Master of Fine Arts Degree in 1950. The summer of 1951 I returned to the Cranbrook Academy of Art to attend the summer session. The summer of 1952 I attended the Pond Farm Workshop, Guerneville, California. In 1954 I began my work at The Ohio State University, where I specialized in Ceramic Art. In 1952 I joined the faculty of Long Beach State College, Long Beach, California, where I have been located while working toward the completion of the requirements for the degree, Doctor of Philosophy, and where I now hold the rank of Professor.