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## A Study of the Bottle Configuration

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A STUDY OF THE  
BOTTLE CONFIGURATION

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A Thesis  
Presented to  
the Graduate Faculty  
Central Washington State College

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts

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by  
William A. Tyner

May 1970

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Special acknowledgment is deserved of Mr. Richard R. Fairbanks and Mr. James Sahlstrand for their valuable suggestions and services on the thesis committee.

In conclusion, I dedicate this study to my father. His integrity and devotion gave me the will to pursue a goal, to work with ambition as he had done so well, all of his life.

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## Chapter 1

### INTRODUCTION

Few men can spatially extend their predominantly three-dimensional minds in terms of three-dimensional material. The potter, fortunately, can and he is able to blend in the fourth dimension of Time in the matter of spontaneity, an apt description of the rapid envisioning a potter achieves through his fluid medium. Few arts (or crafts) are so well equipped to transform idea into form. The quickness of pencil and brush compares favorably to the thrown or handbuilt pottery form, but in the end, the strictly two-dimensional process will involve only visual interpretation, whereas the ceramic form is both visual and tactile.

If a fifth dimension were identifiable in pottery, it would be the emotional link between the potter and his art form. The excitement generated during the various pottery processes attains a fervor equalled perhaps only by the casting of sculpture. When pottery has been given over to the kiln, it assumes control. Even though the potter controls the firing cycle, has planned every phase of this last procedure, the risk or chance factor becomes greatest and the potter most apprehensive.



## THE PROBLEM

### Statement of the Problem

It is the candidate's intention to explore the elements inherent with the bottle configuration. Singled out as most important are Form, Balance and Tension, while the bottle or closed form has been chosen due to the vastness of form possibility and over-all technical difficulty of working in that format.

The study is predominantly creative, and in that vein, the candidate seeks the experience that will be gained from defining his sincere attitudes and convictions embodied in the results of the study, original ceramic art forms.

### Importance of the Study

The truly creative approach to pottery is in working with the materials, i.e., throwing. Designing, feeling and sensing all play an important part as the potter fashions formless clay into his reality. No drawing or sketch can match the thrown form for clarity. Clay is fluid in the potter's hands and can, within a short time span, be any one of a countless number of shapes. It quickly captures in an instant, a fleeting, imaginative fancy--conversely, it is able to interpret a complicated and laborious task taking great patience and skill. The potter only need exercise his talent and imagination, for clay is the ideal modeling medium.

The candidate feels that a creative project such as the one presented herewith displays this approach and can be interpreted as an important learning process, and a study in which these pages are but a small part.

### Limitations of the Study

The prime limitation concerns the configural elements, Form, Balance and Tension. The candidate is most concerned with their manipulation and their singular importance in the finished statement. Conclusions concerning their usage are not called for in this study, only that the candidate will have exercised his will and initiative through the course of the investigation.

The candidate places no restrictions in regard to materials; in no way will he be obligated to use any particular material or number of materials.

The orderly progression of a clay body from its raw state to completion is fixed. It must be worked, bisque and glaze fired (modifications within each phase or combining certain steps are understood) to be classed within the broad framework of conventional pottery, to which this study is committed. What may be concluded in this study will pass. It will have been a phase in the candidate's development as transitory as physical growth, and it is not meant to finalize attitudes in pottery, rather to give it direction.

## DEFINITIONS OF TERMS USED

Art Automatism

Automatic action devoid of will.

Balance

A state of being; in pottery, it is a function of weight, color arrangement and surface area (including the state of the surface).

Bisque

Clay which has been hardened but not vitrified in a low temperature firing.

Configuration

The sum of interrelated parts which, when enjoined, form an entity of far greater magnitude than that which each may have singularly possessed.

Finished Statement

Each piece, however finished or completed, stands on its own merit--as a finished statement.

Form

That which exists as a complete body, not necessarily as physical material but existent, i.e., pottery form or musical form.

Glaze Firing

The firing that usually follows the bisque; to vitrify the clay body and melt the applied powdery glaze.

### Greenware

The unfired state of clay, still capable of breaking down into water suspension.

### Irregular vs. Regular

That which is caused by man due to rationalism is irregular, i.e., architecture, while natural form (below) is regular.

### Natural Form

Forms which occur from elemental materials acted upon by natural phenomena (i.e., a coastline due to wave action, or a butte due to weathering, erosion).

### Oxidation

A kiln atmosphere composed partly of free oxygen is said to be an oxidation atmosphere, and the oxygen is able to combine with other elements within the kiln.

### Pure State

Mind's eye visualization.

### Reduction

A kiln atmosphere in which oxygen is unable to combine with other elements within the kiln, and some of the oxygen that exists in chemical bond in the clay and glaze bodies is driven off, is said to be a reduction atmosphere.

### Spatial Extension

The contour line of a three-dimensional form is a spatial extension of the contour line of a drawn form and therefore represents or describes the inner contents more fully, more realistically.

### Stasis

Harmony and physical balance.

### Stoneware Form

A body constructed of high fired clay as opposed to low fired earthenware clay.

### Tension

Tension in pottery affects the contour line and surface arrangement which effects balance; a function of vision.

### Visual Passiveness

That which cannot visually cause some outward human reaction is to that individual, visually passive.

## Chapter 2

### REVIEW OF THE LITERATURE

#### FORM

In this discussion of form, balance and tension, the interaction of these visual stimuli is constant and elemental, making clear differentiation a problem. Form is the basic entity, a product of physical evolvment of which balance and tension are integral elements.

It is the candidate's reasoning to assume that form is learned, not in academic fashion but by the individual, existing as a rational human being. Because one walks upright, is taller than he is wide, and the terrestrial life form naturally resists gravity, man thinks of himself in terms of the horizon, that is, being perpendicular to it. Arnheim clarifies this reasoning:

The brain field seems to contain a predominance of one orientation, which corresponds to what we call the vertical; within that orientation there must be a predominance of one direction, which makes for the distinction between up and down...the vertical is distinguished as the base to which everything else is related, so that, for example, the symmetry of a pattern is fully acknowledged only when its axis is oriented vertically (1:87).

Therefore, man most commonly associates to the up and down or vertical form, and since the potter at his wheel, due to elemental physical law, throws along this same axis, he invariably must design from the vertical. Keeping this in mind, all deviation from the vertical must be considered

contrary to fundamental human ordering. The Spanish architect Gaudi deduces that,

. . . knowing exactly whether a thing should be higher or lower, flatter or more curved. This is nothing more than a quality of clear-sightedness and I, fortunately, can see things clearly. I cannot help it (4:175).

Gaudi's clear-sightedness comes from a combination of trained imagination and technical achievement in the building process. The fact that he can fuse the two is reason for his greatness. In Arnheim's words: "The very essence of art is the unity of idea and material realization" (1:133).

In any discussion of form, the artist involved is seen as first evolving an idea. Eliel Saarinen outlines a three-part concept of artistic development in regard to form:

1. The Subconscious represents that stage of art development where primitive man, because of an inner drift, acted subconsciously in accordance with the laws of Nature and produced unintentionally genuine art--because of an inherent gift.

2. The Conscious stage represents that stage of art development where advanced man, consciously aware of the important place of art in human society and subconsciously sensing the fundamental laws of art, produced--and produces--indigenous art of such quality as is of constructive avail in the evolution of human culture.

3. The Self-conscious stage represents that stage of art development where civilized man, because of esthetic speculation, dogmatic doctrines, or otherwise, has closed the instinctive channels of creation and has produced art that is "fine", but rootless (5:28).

He also concludes that:

Whatever one is or whatever one does, one is and does--when at his best--within a form co-ordination that breathes the atmosphere of art through the cohering influence of the principle of "organic order" (5:48).

The three-dimensional and concrete nature of ceramic art restricts the imagination, because its limitations, of weight, color, and fragility are readily apparent to the

potter who is dealing with them. The fact that all human senses are involved improves his vision, where training and quality of craftsmanship and skill are determined entities. Adolf Von Hildibrand, a neo-classical sculptor, explains the sense of touch, appealing to the psychology of perception:

(A sphere). . . appears to the eye as a flat disc; it is touch which informs us of the properties of space and form. Any attempt on the part of the artist to eliminate this knowledge is futile, for without it he would not perceive the world at all (1:13).

It is possible to believe that the evolution of an art form should be taken (by the artist) from a pure state of imagination, devoid of involvement with man-made form. Clearly, this is irrational for two reasons:

1. Nature is a bounty of visual experience and the fact that other artists use natural form means that their interpretations coexist, therefore broadening the field or realm of natural form. Eliel Saarinen comments on form, idea and nature from the standpoint of architecture:

. . . rather than to have merely scientific knowledge of all the facts, we must strengthen our instinctive communication with nature so as to learn to feel her (5:25).

Durer has said: "Art is inherent in nature; those who can get it therefrom, they have it (5:27).

2. Nature breeds regularity whether you speak of geometric crystallization, the honeycomb, or a plant form's cellular construction. Only man in all of nature can become irregular, i.e., mechanical, a capacity that does not need elucidation. In man's difference lies the crux of my second point. Within man's willful regularity lies the ability



to become irregular. It is the artist who stands to capitalize most, for this capacity is volitional, it is imaginative, it is visionary. The irregular in human art is the non-organic, the mechanized, and is as much a part of life as scientific progress will allow.

Mechanization and organic construction are not separate, for the artist is in command of them and fuses them at will. While two apparent camps exist, each supporting their side and sponsoring individual revivals with each new, eloquent spokesman, a majority stands with "organic derivation."

Collier looks at regularity from the physical standpoint:

Sameness or regularity tends to produce an inanimate and mechanical structure--a dull thing not enlivened by a variable element. On the other hand, a linear structure composed of diverse and opposing elements if held together by a structural unity, compulsively holds the interest of mind and eye. (A sense of structural unity is imparted when the organic movement from limb to limb is intrinsically a characteristic of the structure--it has grown that way apparently, rather than having been contrived artificially from a series of parts) (2:37-38).

Natural form exists as it is known today because it has survived through evolution. Therefore, it is reasonable to assume that plant forms have evolved due to their inbred strength, a combination of biological and structural strength. Upon close analysis of the structures of hand picked objects from nature, solutions to many design problems are suggested.

This is especially true in clay forming problems which potters continually face. Because of its fragility,

clay demands structural strength whenever objects of any size are produced. More important than merely observing natural form though is the invention of form from the artist's own resources. As previously mentioned, man's ability to rationalize requires that he modify his environment including his art. In analogy, if a shark's sectioned vertebra is translated by a potter into comparison with the spokes of a wheel, and that interpretation solves his problem of strengthening a delicate loop of clay, then he has exercised this ability.

The candidate finds it impossible to deny this heritage of form, whatever the mechanical involvement because organic structuring is infinite--something to return to--a base from which experimentation can take place, the key to constructive creativity.

Saarinen alludes to this philosophy:

Thus during all the times of man's existence, man's imagination has been in constant alertness in the search for the secrets of all things. Constantly it has been in constant movement like the waves of the ocean with their constant birth and extinction--and constant wondering.

Because of this constant wondering, religion has been born in the search for truth. Because of this constant wondering, philosophy has been born in the search for explanation. Because of this constant wondering, science has been born in the search for facts. And because of this constant wondering, art has been born in the search for form (5:101).

Adding to his statement, the writer and musician Busoni bespeaks the truly honest artistic approach:

The creator really only strives for perfection. And as he brings this into harmony with his individuality a new law arises unintentionally . . . The "new" is

included in the idea of "Creation"--for in that way creation is distinguished from imitation . . .

One follows a great example most faithfully if one does not follow it, for it was through turning away from its predecessor that the example became great (7:132).

The quest for form in nature is perhaps the first known to art. In this century, man-made areas have been tapped that have erupted violent attitudes and ideology, culminating with a potpourri of isms, in the midst of which is Minimalism. In the minimal vein, form is all. Human elements are reduced, not just organic form of course, but the statement has been removed and form is made to carry all. Collier is concerned over the dehumanization of hybrid sculpture:

In too many of us, curiosity, the capacity for wonder, and any sense of a personal response to the complexity of other forms of life in the world have given way to the perceptive lethargy of an automatic and mechanized civilization (2:129).

Saarinen previewed today's mode when he stated that, ". . . cleverness of technical execution . . . became the supreme virtue. . ." (5:75).

An attempt is being made to segregate the traditional methods of form evolvment, to dehumanize and isolate art for art's sake. All of this rushing around of the "art mainstream" represents the most complicated art automatism that has ever existed. A clear delineation of purpose does exist for this candidate. In Busoni's words:

Build up! But do not content yourself any longer with self complacent experiments and the glory of the success of the season; but turn towards the perfection of the work seriously and joyfully. Only he who looks toward the future looks cheerfully (7:132).

Despite the current rejection by many of organic structuring, and the promotion of artificiality--the nature of the trend is to return once again to simplicity with content, not one form from one idea, but the individual fashioning of form from any and every idea, whatever the mode of art.

### BALANCE

Balance connotes equilibrium or physical peace and by definition can only be attained when opposing forces reach a state of equinimity. A simple balance instrument relates the state of physical equinimity between two masses (3:74). Arnheim defines balance:

. . . balance is the state of a body in which the forces that act upon it compensate each other. In the simplest example this is achieved by two forces of equal strength that pull in opposite directions (1:9).

In its purest state, balance is achieved when there seems to be no other solution to a finished work of art. The artist has found the point at which an observer sees no possible repair and necessarily all parts must be present in the whole. (It must be noted that this state of completion in the artist's eye is a personal feeling and must not be construed as a physical law understood by everyone.) Furthermore:

The notion that art is concerned with perfecting formal relationships such as balance, misleads and alienates the public. It has equally devastating effects upon the practice of Art. An artist who approaches his work with the sole intention of achieving balance and harmony without considering what he is trying to balance will get lost in the arbitrary playing with form ... (1:27).

This is true of any art form. The finished piece, whether canvas or clay, has met identical personal standards of which balance, however accomplished, has assumed major proportion.

At this point, and before differentiation becomes a hardship, the candidate must define the relationship of balance to tension (which is to be discussed later). Simply, tension is wrought in various degrees by the state of balance that a work possesses, and is directly responsive to the sensitivity of the artist who presents them. The artist's ability may determine some consistency in his work, but it is not a requirement for a successful work. Therefore, balance and tension can be considered physical entities which do not rely entirely upon human arrangement, but do exist because of human judgment.

The elements of balance that compose form and the physical rules which govern their placement are manifold and an attempt to discuss them is not called for in this study. What is important is to discuss the reasoning behind their usage.

Collier states that some artists strive for: (1) points in space--overwhelming negative areas; (2) massive form in little space; (3) equal strength of form pitted against that of space; (4) balanced relationship--form and space almost indistinguishable (2:123-4).

However, in essence what they are attempting to do is negate visual passiveness. An art work succeeds only

when it favorably affects the viewer's visual sense. In Arnheim's words, "Every act of seeing is a visual judgment [judgments], . . . are immediate and indispensable ingredients of the act of seeing itself" (1:2).

Consequently, the artist handles his material in such a way as to cause a particular stimulus to affect the viewer's senses. In three-dimensional art, the contour line is particularly important. Delacroix stated:

The contour (outline) accentuated uniformly and beyond proportion, destroys plasticity, bringing forward those parts of an object which are always most distant from the eye--namely, its outlines (2:63).

And Collier states:

So when we talk about the dynamic aspects of a work of art . . . we are referring to the way in which the artist commands the life of the forms he creates. These forms may represent objects found in the world, or they may be the personal creations of the artist (2:93).

Throughout the formulation of an art work the artist has carefully observed the contour and the juxtaposition of interrelated parts. The contour line presents (basically) the total image and as a result, total form and balance. Tension does not necessarily need to be totally exposed for it is also dependent upon other visual stimuli, i.e., color, and surface modulation.

Collier relates three important functions that are the "essence of composition in art and design." Of particular importance to this study is point three:

1. The dynamic life of forms is plastically realized through their spatial extension.

2. That different types of point to point line indicate the movement tendencies of objects and the nature of the forces which affect their position.

3. That spatial intervals between forms (marks or surfaces) are related to both 1 and 2 above and also to the action of forces on forms in space (2:109).

A potter's flexibility is significant, for countless artistic formulas have been introduced to the public by artists and the flow of new ideas is constant. The single greatest point of departure (and the candidate's customary methodology) in organically inspired art evolves from the statement of intent, (keeping in mind the standpoint that many take toward dehumanized, non-statement art.) Arnheim states that:

If we wish to understand a work of art, either by intuitive contemplation or by explicit analysis, we must inevitably start with the pattern of forces that sets its theme and states the reason for its existence . . . the dynamic theme is meaningful only when it is referred to the content of the work, that is, to the statement the artist wishes to make. This holds true regardless of whether or not the work represents objects of nature. The dynamic theme of a building or a "mobile" depends upon a statement about a content just as much as a picture full of people, animals and trees (1:424).

A decision, concurrent with the above reasoning invariably serves as the fundamental groundwork from which the artist's image will emerge.

#### TENSION

It is true that balance and tension are common to all art forms whether sculptural or pictorial and that pottery can be both. So any discussion of pottery in regard to these phenomena should be thought of in terms of physical

masses and contour lines, rather than including surface decoration, keeping in mind that the same basic rules apply to all three.

Certain forms cause universal reactions in man, when they can be recorded or interpreted under laboratory conditions and when the subjects have met basic intelligence and literacy requirements. Arnheim states that spherical shapes appear to pull up or down while cylinders pull up and outward. A partial closure such as the horseshoe arch tries to close into a circle on stilts (1:410-1).

In nature we are accustomed to the look of skin stretched over bone so that when we see sharp angular changes of surface direction, the illusion of tautness is conveyed. Hence, one sharp delineation of an otherwise smooth volumetric shape can be a powerful design element. In support of this premise, Arnheim concludes:

Various architectural and other conventions give rise to tension due to their construction of lines necessitating closures, i.e. form rising, falling, the appearance of constrained projected energy create in the viewer an apprehensiveness, even impatience.

A good example of an artist modifying this principle is the sculptor Lessing. Lessing maintained that action should be represented in sculpture or painting, not at its climax but at a point a few moments before the maximum because only in that way would the imagination of the spectator be given free play to conceive a dynamic increase beyond the given phase (1:408).

Lessing's idea was the theory of the "pregnant moment" and it was rejected by many for the more conventional "concrete art" that allowed no room for phantasy.



The candidate is much in agreement as Arnheim related:

Often the strong visual movement observed in natural objects derives from the fact that their shapes are the traces of physical forces, which have created them through motion, expansion, contraction or the processes of growth (1:414).

And Burcharz observes that:

Snails in building their shells offer an example of rhythmical construction. Snails' shells are fixated expressive movements of the first order (1:414-5).

Again, Arnheim strongly voices his sentiment on movement:

"If movement is absent, the work is dead; and none of the other virtues it may possess will make it speak to the beholder (1:417). Arnheim mentions the calligraphic brush stroke of the Japanese artist, which is called "fude no chikara".

For the representation of cliff, beak, claw, limbs or talons, the moment the brush is applied the sentiment of strength must be invoked and felt throughout the artist's system and imparted through his arm and hand to the brush, and so transmitted into the object painted (1:416).

The candidate feels that it is important to share their concern as Eliel Saarinen could obviously do with his ability to "see clearly". Kandinsky's "directed tensions" are more or less intended physical arrangements of what the Japanese let happen spiritually which gives us two directions of the state of mind that conceive an art work, that is, deliberate and spiritual. Again, this is much too broad an area to research since this study is intended only to acquaint the candidate with the means to seek direction.

In conclusion, elements of form, balance and tension are interrelated, and the alteration of one will invariably alter the others. It is possible to say that balance and tension make up form, conversely, there can be no form without its integral parts, and the artist is responsible for determining the point of stasis. However, he need not be responsible for the work to judge it.

## Chapter 3

### PROCEDURE OF THE STUDY

#### INTRODUCTION

In this creative study, flexibility is extremely important, therefore a strictly defined procedure is too limiting and cannot be made. However, associated with the study are procedures that can be expected to occur.

The initial phases of the study are dependent upon the drawn form with its appropriate decorative schemes. These are carried out with pen and ink, pencil or brush. Forms often come from laborious design work but may be suggested by any shape discerned by the eye. The latter experience is by far the quickest, many times more free and spontaneous. Also considered during the early part of the study are clay bodies and colors plus any special effects suggested by actual greenware forms.

Glaze, engobe and maiolica experimentation, part of decorative effects and very important to the finished product will also be considered during this time. Wheel work and handbuilding will be carried out during the year with the most work occurring in the final months of the study.

#### PROCEDURE

In the beginning the candidate proposed to develop supplementary materials which were designed to aid the

creative aspect of the thesis. Among them were glazes, special tools, and closely associated to but not classified as material was a strenuous daily session at the potter's wheel. During the first three months of the eleven-month study period, no examples of work were retained or used in any way toward the building of this study. That time was consumed in the development of the pitcher form. However, glaze formulations from that quarter, which comprised half of the work accomplished were intended for the upcoming study.

In regard to the glaze calculations, some explanation is required for a clear understanding of the breakdown of this classification. The candidate grouped the following items under the heading of glaze experimentation and all were topically surveyed:

1. (20) C/9 Reduction glaze formulas
2. (20) C/9 Oxidation glaze formulas
3. (05) C/9 Crystal reduction glaze formulas
4. (05) C/9 Crystal oxidation glaze formulas
5. (25) C/9 Ash glaze formulas
6. -- C/9 Stoneware slip engobes (colored)
7. (10) C/9 Fusible engobes
8. (05) C/9 Underglaze stains

Especially important to the study was clay body formulation. Wheel forming and hand/mold forming processes were considered, and each demanded a certain clay quality. In general, clays suitable for C/9 wheel work must be homogeneous mixtures having a high maturation point while indicating strength, resilience and plasticity. Whereas, in handbuilding, the same qualities with the exception of plasticity are required and an additional flexibility is

achieved through the addition of extra extenders such as sand and grog. They allow a dense clay to dry more evenly, thus minimizing warpage and splitting seams.

The strength of a wheel-formed piece is caused by pushing, pulling and stretching clay during the throwing process. Surface markings trace a work's origin, and the cylindrical form (that each thrown piece must originally have been) is structurally and economically strong. A hand-built piece generally lacks any contrived tensions or reinforcement, so walls must be carefully buttressed and made of good stiff clay offering great adaptability. The candidate used one type of formula for throwing purposes and one for handbuilding, both conforming to the above requirements and having been varied slightly from batch to batch throughout the study to suit current demand.

## Chapter 4

### THE STUDY

Chapter Two was devoted to the recognition of the candidate's three prime design concerns in the making of pottery, more precisely, the physical configural elements of the bottle form. That is, Form, Balance, and Tension are best contrived from natural form and that what has evolved to this point in the natural realm has done so due to a process of elimination--the strongest and most cunning obviously attaining pre-eminence. It is for this reason that so great a store of form exists of unparalleled quality and unmatched craftsmanship.

C. H. Waddington states that:

Primitive man was surrounded by organic forms. So nowadays is the agriculturalist or anyone who lives in the country. It might be expected that the specific biological character would impress itself by mere familiarity on artists who lived in close contact with nature, and would be particularly apparent in their works. But it is only to a slight extent that this is true. The most primitive paintings of the European Stone Age and of African Bushmen indeed often express the qualities we have been describing, but most folk art lacks them. Man, it seems, when he begins to create, is usually more single-purposed than living Nature. The inner logic of his constructions is simpler: or he is concerned more with an externally imposed logic of representation or symbolism. There is, in a human work of sculpture, no actual multitude of internal growth-forces which are balanced so as to issue in a near-equilibrium of a rhythmic character. We should therefore not expect that works of art will often arrive at the same type of form as we commonly find in the structures of living matter. Much more can we anticipate an influence of man's intellectualising, pattern-making habit of simplification, diluted perhaps by an intrusion of unresolved detail. Only the

extremely simple, or the extremely sophisticated, are likely to stray into the realm of form which is the proper outcome of the blind but complex forces of life (6:51-2).

It is this very philosophy that man follows today, that of simplification of natural form, but with the added reassurance of scientific precision. Both are valid avenues for inspiration while including personal resourcefulness yields an unlimited array of possibility.

In the case of this study, exercising ingenuity through originality (while exploring current modes of ceramic expression as well as natural form) is the key to the candidate's expression.

Working with divergent viewpoints in the medium allows one to easily develop through the amateur stage the staggering, seemingly endless striving toward a goal which eventually proves hollow and no goal at all. As Mondrian said of artists: "One aims at the direct creation of universal beauty, the other at the esthetic expression of oneself, in other words, of that which one thinks and experiences." This study recognizes that both are necessary for full artistic development within the art colony, community, or world.

The candidate chose to follow natural form as opposed to all other categories of form idea. Within this area will be found forms from nature and those same ideas modified in countless ways within the mind; forms already

recognized as having human derivation such as the organic architecture of Antonio Gaudi and Eero Saarinen, again singling out ideas or patterns.

All of life is available to the willing designer. Often, throughout this study the candidate would catch glimpses of happenings which in turn triggered the creative impulse to order the available material. Obviously, this process is chance, random and completely without preplanning. It is possible then to realize the extent and availability of idea, by adopting this method and to see how utterly useless it would be with these few pages to attempt to rationalize or even explain the process. This is a personal affair and this study is definitely a prime example of this philosophy.

The candidate has attempted to intermesh proven structural devices, such as architectural and other design conventions, the end result or finished piece being fully justifiable (due to the fact that the candidate's mind does not incur guilt). If guilt happens, the creative process is incomplete in that too much has been taken away and not enough returned. If the candidate felt guilty about having stolen an idea in total, then his work would have no personal value.

Up to this point the candidate's philosophy has been simply a combination of the following: (1) mind's eye realization; (2) critical determination as to design and



relevancy (cultural acceptance); (3) a resulting honest mode of expression.

The first point corresponds to the initial design impulse which is a function of the many inputs of information that the mind accepts. The second is the sorting out stage of design execution where the action of personal taste becomes involved, taste being the prime determinant entity of the process. The third is the introduction of the work into public display, a result of the aforementioned two stages upon their completion and a final personal decision as to the work's honesty. This entire system revolves around basic honesty. It is personal and definitely not intended to be of an instructive nature.

The approach to creating forms within the bottle format was purely random. From start to finish, the candidate followed only the urges of the moment and produced works that were progressions along a certain idea. As an example, a propensity for the large was ever present throughout the study. As a result, a similarity of size may be drawn from scanning the creative examples on the following pages.

Upon further scrutiny, the discriminating observer might also define a second overall similarity. It can best be described as an organic quality. It is the look that each example has of having just pushed through the earth like the shoot of a plant. This apparent evolvment from the earth, the intense upward thrusting that many exhibit is

all the gratification that the candidate requires from these pieces.

To evolve a form which describes the visualization of the artist is ultimately worthwhile--despite the technical trouble it may have caused.

The following photographs are arranged in no particular order. The pottery has been grouped within each photograph according to some similarity that will be covered in each case.

The Saguaro cactus bears little physical resemblance to Figure 1 although the candidate felt that the presence of a towering form with upthrusting arms might evoke that response from an observer.

The candidate did not want to imitate, rather, he was impressed by particular assets the cactus possessed and created from his impressions, not from physical lines and colors. The cactus arms are monuments subservient to the trunk, related, but far enough from each other to be independent. These impressions are the basis for the construction of this piece.

Prior to beginning work on this form and before the association was made with the Saguaro cactus, the basic motivation behind the construction of this piece was to elevate a complex form above eye level. It is an uncommon thing in pottery to gaze upward toward the busy part of a ceramic form.



Figure 1

Stoneware Bottle, 11 Thrown Sections, 3 Fired Sections, 111" Height, Cactus

The candidate feels that this technic is classed within the realm of design along with form placement and psychological meaning. In this vein, it is of absolute benefit to the piece, not in any sense of the aesthetic but to the mind of the potter.

Taj represents the candidate's feeling toward the complex organic life form; the overhead suspension of a bulb form, the intertwined support from below and the overall upthrusting, pell-mell rush to grow. Its vertical stripes



Figure 2

Stoneware Bottle, 5 Thrown Sections, 2 Fired Sections, 60" Height, Taj

accentuate growth while a momentary halt comes from midpoint in the contour line that breaks up the otherwise rapid eye surveillance. This is technically the most successful example from the entire study because it involves great weight, height and balance. The candidate also feels that this piece should be regarded here as the most successful overall due to its exceptional visual and tactile qualities.

The two examples in Figure 3 nearest the front of the picture plane resemble the human form.





Figure 3

Stoneware Forms, Each Has 6 Thrown Sections,  
2 Fired Sections, 80"-75", Couple

The great influence of Antonio Gaudi has been most inspiring. Although his efforts were architectural, he sculptured towers and applied ceramic tile decoration in complex designs in apparent good judgment. It is from him that the forms shown in Figure 3 owe so much. As in Figure 1, only the inspiration has been lifted by the candidate to be remade into the Couple. Like other artists, Gaudi organized the available physical and inspirational material and made it

his own image. (Those who could claim full credit for any art work including every facet of design through to its completion do not exist.)

The suspended forms, balanced yet unsteady atop thin tall cylinders evoke a high degree of tension. The negative spaces within each skull become eyes and suddenly the cylinders take on a different character.

These are people--a meaningful, but eerie couple that must necessarily affect whoever approaches them. This is the reason for their existence and it is why they were made, patterned somewhat after Gaudi's Guardian Figures.

Figure 4 represents a traditional bottle approach. All examples were thrown within a few months of each other, and they indicate divergent views within the bottle configuration.

The term traditional as used by the candidate was discussed earlier but needs to be further explained at this point, and in relation to these pieces. In terms of proportion, a traditional bottle has no extraneous projections such as arms or fins. It is functional just for the fact that it has an opening (however small) to the interior volume. It is portable by human conveyance without the aid of pack devices or winch. It is durable out of necessity, but it does not have to be creak strong. Further, a traditional bottle design should follow its intended function by accomplishing the intended purpose with all encompassing economy.

Besides traditional design, similarities also exist because each example is made up of more than a single thrown section. The two largest pieces are made up of two sections placed lip to lip while the remaining three have thrown foot rings in applique.

With the traditional aspect still in mind, the three pieces in Figure 5 are submitted. They represent the furthest reaching extremes in the traditional bottle design. The candidate realizes that other forms exist in this category. Certainly, the presumption that these three examples are to be taken as ultimate is not inferred. They are examples within this category--only.

There are some restrictions which limit their utilitarian value. The most obvious limitation is that all are bottomless--they will not hold a liquid. Their only other value is in providing a base for sprigs or flowers. They are more fragile and awkward but compensate for it in exhibiting a definite state of elegance by virtue of their component elements.

The four examples in Figure 6 are the last of the traditional pieces to be examined. One can quickly see their similarity due to design. Again, the upward thrusting is achieved by a balance that is focused by the unnatural placement of bulk high above an inconsequential pedestal. The bulk is magnified by two factors: one is the negative area beneath the form, and the other is caused by capping the uppermost area with a miniscule neck opening. To recap the



Figure 4



Figure 5



important points in this design the candidate submits this formula: In any given bottle (in Figure 6), the final statement is made by the interactions of the contour lines delineating the form, which note the states of balance and the resulting tensions therewith.

While all three steps exist at the same time, they are measured by the observer who judges their effect. Therefore, one observer's opinion is important only to himself and it is the artist who must choose whether to satisfy himself or to try to satisfy as many people as possible. The candidate feels that an attempt at the latter places too much emphasis on compromise. It is important to be aware of the effects of compromise for some may be beneficial under the right circumstances.

Figure 7 indicates five constructions that were essential experiments which led decisively to the design of the Couple, Figure 3, page 30. Primary importance was placed upon the negative areas while their location on the piece was strictly determined by the method of construction. Where two forms were joined, the areas were modified; that is, pushed inward causing both concave and negative areas. This generally occurred within the mid-section.

Obviously, the Couple bears little physical resemblance to these forms. The candidate can clarify this apparent deviation from the experiments by drawing a parallel: A sculptor may choose to rough out his design while closely finishing the important areas--modeling the head rather than



Figure 6



Figure 7

the entire torso which may not change from figure to figure. Each example in Figure 7 is a finished head, any of which could sit atop the common base.

Figures 8 and 9 are variations of a theme to affect major changes in the form of each piece. Some take on a figural representation while others incorporate attached loops and rings of clay.

In each case, utility is not the supreme virtue, only form and its appurtenant devices. Four are salt glazed but are not easily recognized as such due to the similar hues that camouflage stoneware, the browns and gray-greens.

Figure 10 was accidentally destroyed soon after this photograph was taken. It was in itself the third attempt at that form, the other two having cracked or exploded in the kiln. It was blown over by a thirty-knot gust of wind which suddenly swept up the valley and onto the school.

In construction the disc shape was placed under a photographic enlarger, and a negative image of a face projected upon it. The extreme edges are elongated, hence distorted due to the conical shape of the disc. The positive areas of the projected image were then covered with colored slip and the negative areas left untouched. The entire form was then glazed.

This type of form is akin to the Couple both in size and in figural relationship. It also ranks with them in technical difficulty.



Figure 8



Figure 9





Figure 10

Stoneware Form, 3 Thrown Section, 2 Molded Sections,  
2 Fired Sections, 58" Height, Grandmother

Figure 11 belongs with the three elegant examples in Figure 5. Its simple contour and similar ends make it reversible, changing the direction of the strong spiraling brush stroke. The candidate chose to photograph this as well as several other forms against a varied background containing tree limbs, to visually parallel the contour line with individual growing forms. It justifies the design and provides meaning, hence value.

Figure 12, Composite, was finished early in the



Figure 11

Stoneware Form, 3 Thrown Sections,  
1 Fired Section, 36" Height

study, and it is the only surviving example of what had been a projected total of five such combinations. It utilizes clay and plexiglas, the glaze stripes accentuating the scored grooves of the two windows.

A strobe light flashes intermittently, giving a moving object the illusion of slow motion. The candidate attempted to match this effect by lining up two rows of lines, so that upon looking into either window at an angle perpendicular to the plate surface, vision is blocked. At either





Figure 12

Stoneware and Plexiglas, 2 Thrown Forms, 1 Fired Form,  
 2 Plexiglas Windows Cemented to the  
 Stoneware, 24", Composite

side, however, openings occur and vision or light passes through.

In the photograph of Composite the shadow is caused by side lighting, and therefore, the above example is reversed; light is blocked at the sides and allowed through the center. Since the lines are uniformly spaced and run vertically to the horizon, this effect works only laterally.

In Figure 13 the form's true purple color is poorly reproduced and appears in the photograph as blue-gray. This



Figure 13

Stoneware Form, 3 Molded Sections,  
1 Fired Section, 16" Height

form was salt glazed, and it represents the heaviest accumulation of salt that any piece in this study acquired. The candidate believes that it is of great benefit to the form, adding to the already intricate negative-positive areas. The moss green colored bands were caused by salt reacting to brushed-on yellow ochre. The purple (true color) was a similar reaction from ambligonite.



## Chapter 5

### SUMMARY

The candidate chose to reflect upon the importance of three configural elements in bottle design--form, balance and tension. Along with the basic understanding of these elements was the need to denote some of his sources of inspiration: natural form and that form which has been drawn from the Organic Order by other men and remade after their own fashion. Both areas contain unlimited resources.

It is recognized that the Spanish architect, Antonio Gaudi, provided the candidate with a sense of respect for the past and that aged form need not suffer a loss of dignity with its disappearance beneath the shadow of modern technology, i.e., Minimalism.

Because of the unlimited array of form possibility and the variety of ways that tension may be invoked, balance offers a great challenge even if it is just to obtain physical balance--in itself important in pottery. The potter's ability in this area may be gauged by the degree of tension that he produces. Clearly, these remarks refer to this study but they may be applied to others who attempt similar tasks.

Original expression or forms that can unabashedly be called the candidate's own are the intended outcome of this study. Correlated to the creative aspect is the invaluable experience that is gained from defining personal beliefs and

in the case of a study of this nature, exposing these beliefs to others.

The results of this study, the creative thesis, are embodied in the approximately 50 exhibition pieces. They represent about one-fourth of the total number of pieces attempted.

Technically, working within such a loosely defined area as the bottle configuration promotes variety in design. To keep from repeating what the candidate knows has been done before is a simple task. However, great difficulty rests in true originality, the evolution of new personal statements. It is also the most important benefit of creativity because it brings about an element of satisfaction. To properly evaluate the creativity of this study depends upon the candidate's future work. Because it is personal, such evaluation would not be valid, for it was mentioned earlier that in essence, each person composes his own statement, reflecting his own thinking, whatever its form.

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APPENDIX A

GLAZE CALCULATION

The following listing indicates the stoneware, high-fire or Cone Nine glaze formulations in order of preference. The terminology used is common to the craft, and where otherwise noted, all quantities are in parts per batch as determined by weight.

Speckled Tan Matt

Nepheline Syenite	6
Mixed Raw Wood Ash, Unwashed, 40 Mesh	2
Kaolin	1
Magnesium Carbonate	.5
Flint	.5
Ultrox	.05%
Basalt, 20 Mesh	.01%
Dextrine or Gum Tragacanth	.02%

Glossy Speckled Tan

Cornwall Stone	75
Whiting	15
Kentucky Ball Clay, OM 4	5
Magnesium Carbonate	2.5
Basalt, 20 Mesh	.01%
Rutile	.02%

Flowing Speckled Tan Gloss

Cornwall Stone	70
Whiting	30
Ultrox	2.5
Iron Oxide	.01%
Basalt, 20 Mesh	.01%

Flowing Matt Ash

Mixed Raw Wood Ash, Unwashed, 40 Mesh	1
Oxford Feldspar	2
Kaolin	1

Coffee Ash, Broken Surface

Mixed Raw Wood Ash, Unwashed, 40 Mesh	2
Spodumene	1
Soda Ash	2
Kaolin	2
Cornwall Stone	.05%
Tin Oxide	.10%

APPENDIX B

CLAY BODY FORMULAE



The following Stoneware Clay bodies will support any reasonable abuse during firing without cracking or warping. Total shrinkage from the dry, green state through 2400 degrees F. is less than 10 per cent. Quantities are in parts per batch as determined by weight.

A Throwing Clay

<u>Mason's Blend Fire Clay</u>	50
<u>Kaiser Milled Fire Clay</u>	20
<u>Kentucky Ball Clay OM 4</u>	10
Flint	8
Sand, 30 Mesh	5
Grog, 20 Mesh	5
<u>Kingman Feldspar</u>	<u>2</u>
	100%

A Handbuilding Clay

<u>Mason's Blend Fire Clay</u>	35
<u>Kaiser Milled Fire Clay</u>	20
<u>Kentucky Ball Clay OM 4</u>	18
Grog, 20 Mesh	10
Flint	8
Sand, 30 Mesh	8
Nepheline Syenite	2 (optional)
Bentonite	<u>2 (optional)</u>
	100%

APPENDIX C

SELECTED KILN LOGS

## K I L N    L O G

DATE: Apr. 30, 1970

---

KILN: Salt	STACKED BY: Tyner
TYPE OF FIRING: Salt	FIRED BY: Tyner
CONES, UPPER: Pyrometer	
LOWER: Pyrometer	

---

TIME	GAS	AIR	ADJUSTMENTS AND OBSERVATIONS
1800			Stacked kiln
1900			Just enough pressure to cause draft and burn overnight
0850			About 3/4 open gas
1100			Spun air valve closed to a point where smoke began to issue through the bricks, then backed off until it quit--setting reduction at dull red
1330			2075° F. by pyrometer
1350			2100° F.+ by pyrometer. Damper to 3 on scale and closed off air for 1 minute.
1355			1st Salt
1405			2nd Salt
1415			3rd Salt
1425			4th Salt
1435			5th Salt
1445			6th Salt
1455			7th Salt
			Kiln ran for 5 minutes with air wide open prior to shutdown
1500			Off

K I L N   L O G

DATE: 6-7 May, 1970

KILN: H F 24

STACKED BY: Tyner

TYPE OF FIRING: C/9 R

FIRED BY: Tyner

CONES, UPPER: Pyrometer

LOWER: Pyrometer

TIME	GAS	AIR	ADJUSTMENTS AND OBSERVATIONS	
1200			Stacked--pilots	
1800	1/2	25		
2100	3/4	20	Overnight--1200° F., top and bottom	
0930	2	50	Bad back pressure 1600° F.	
0945	6	55		
1030	5	55	TOP 1800° F.	BOTTOM 1800° F.
1100	5	60	1900	1900
1400	5	50	2100+	2100+
1500	3	100	2125+	2125+
1630	5	55	2275+	2275+
1730	5	55	2275+	2275+
1730			Off--Temperature stabilized	

APPENDIX D

SELECTED CLOSE-UP TEXTURAL PHOTOGRAPHS

The photographs contained within Chapter 4 cannot begin to expose the qualities that each glaze contains. Therefore, the following close-up (from twelve inches) textural photographs were exposed in order to better see the color and surface of each glaze. The figures refer back to the photographs in Chapter 4 from which the close-ups were taken.



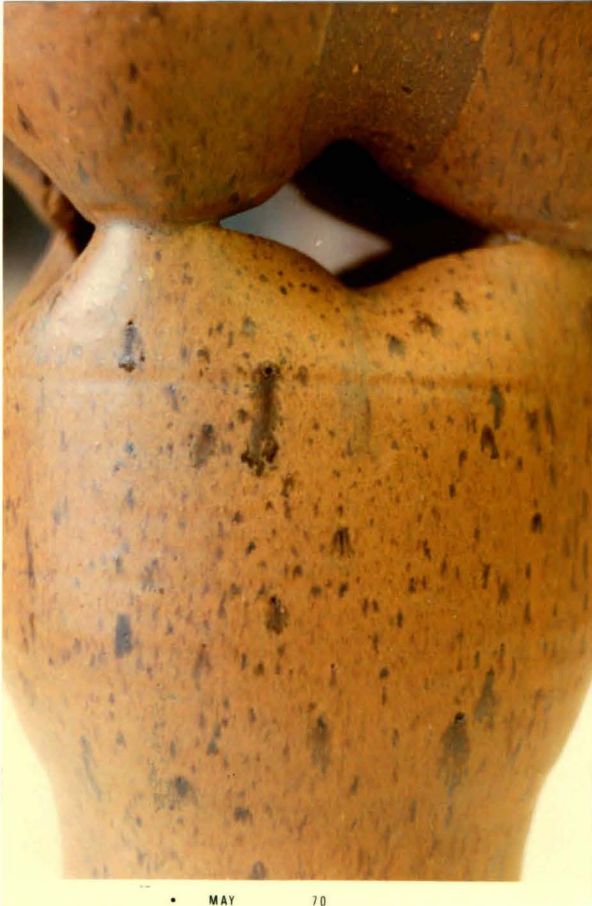
• MAY 70

Figure 6



• MAY 70

Figure 6



• MAY 70

Figure 7



• MAY 70 •

Figure 9



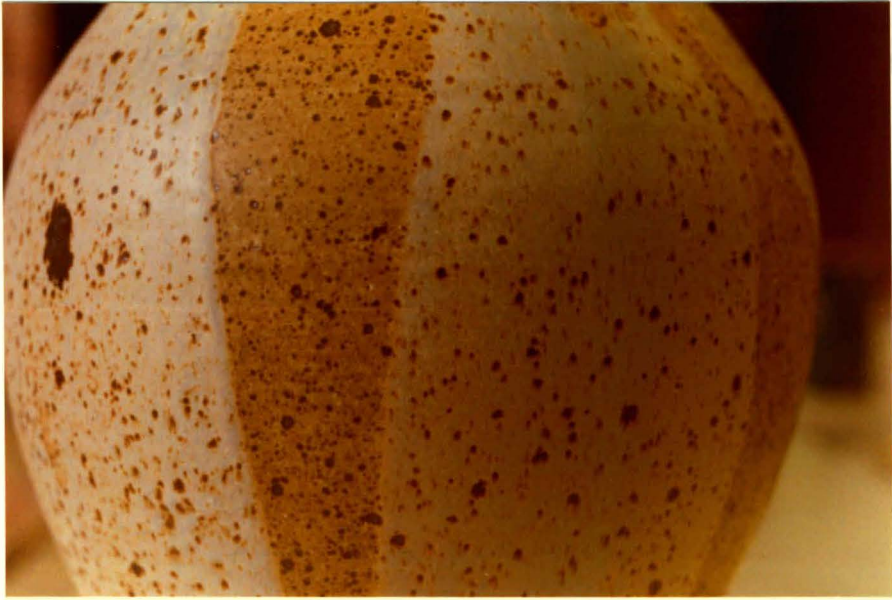


Figure 6



Figure 8





Figure 4

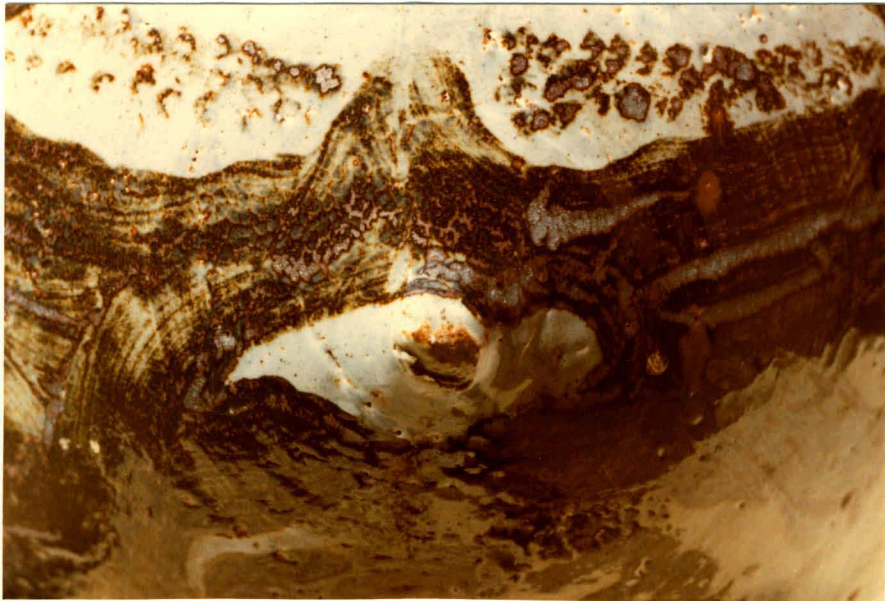


Figure 10

APPENDIX E

SALT FIRED BOTTLES NOT COVERED IN CHAPTER 4



All three forms were wheel thrown, lightly glazed in the salt kiln, and have pulled handles curled into a ring and attached to the bottle neck. The colorant oxide used to cause blue spots on the lip applique and body was cobalt on the left and yellow ochre on the right.

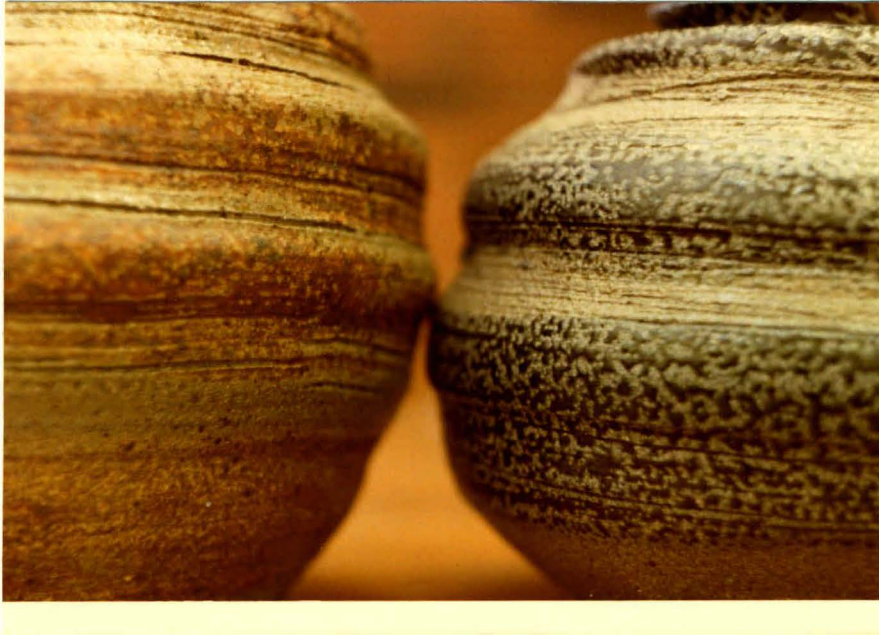




Two wheel-thrown stoneware forms with pulled handle necks and lips in applique. The form on the left was colored with amblignonite while on the right, the easy-to-use cobalt was brushed on.

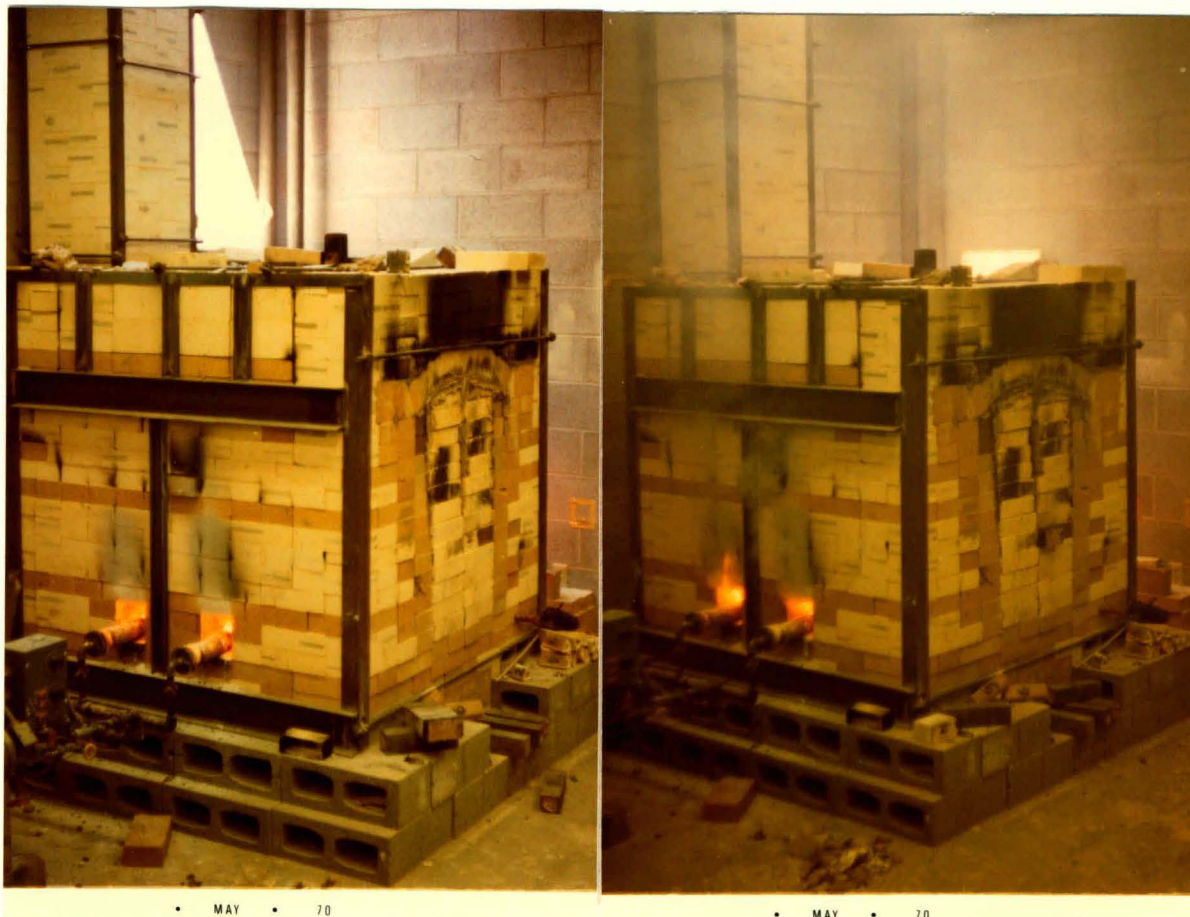


On the left, pulled handles were twisted and pressed into the clay, while on the right, they were applied as a design element.



These two salt glazed forms appear on the previous page and like other photographs taken from about four feet, it is not easy to make out the glaze texture. This photograph was taken from twelve inches and better displays the detailed glazed surface.





The school's salt kiln was student built and serves to add unique variety to the glaze firing. At heat, the kiln smokes only from accumulated salt from previous firings. When a salting takes place, a great quantity of smoke issues from every crack in its walls and fills the room with unburned gas and chlorine.