

AN EXPLORATION OF THE VISUAL IMPACT OF
SYMMETRY, TEXTURE, AND MULTICULTURAL
IMAGERY ON THE CHALICE

PROBLEM IN LIEU OF THESIS

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CHAPTER I

INTRODUCTION

The chalice has been an interest and fascination of mine for the past thirty years, not only because of my Catholic upbringing but also because of my love of ancient metalwork. The chalice was among the key implements used to perform the liturgy of the Christian church from the Middle Ages, and is the vessel used to hold the most sacred substances of the Christian faith: the bread and wine of the Eucharist.

Like the household vessels from which they were derived, early Christian and early medieval Eucharistic vessels were made from a variety of materials: glass, ivory, and metals. Some of the materials proved to be unsatisfactory: glass was breakable, wine corroded brass and copper, and wood absorbed wine. Durable noncorrosive materials were needed, especially for chalices. Gold and silver were possible choices, but practicality alone does not explain why they were regarded from a relatively early date as the most appropriate materials for the construction of sacred vessels. In any case the church eventually prescribed the use of gold and silver, prohibited some materials, and established guidelines for the selection of others. Finally, in the latter part of the Middle Ages, the church required that all surfaces touching the Eucharistic bread or wine be coated with silver or gold (Bryson-Siegel, 1975, p. 14).

The aesthetic appeal of color, luster, and the sparkle of silver, gold, and jewels was one reason for the use of these materials in the manufacture of liturgical vessels. Elaine K. Bryson-Siegel explains an important term used in describing the chalice, "The ninth-century rediscovery of the 'De Caelesti Hierarchia' of Dionysius the Pseudo-Areopagite added a theological dimension to their appreciation. The text outlined a means of aesthetic contemplation termed the anagogical, or "upward-leading", approach (anagogicus mos), and postulated that the "harmony and radiance" of beautiful material objects guided the mind upward in the universal hierarchy, which ranged from the grossest material to the "transcendental divinity of God" (Bryson-Siegel, 1975, p. 14). Precious materials were abstract symbols designating cultural significance through socioeconomic value and repositories of negotiable wealth (Bryson-Siegel, 1975, p. 19). Gifts of liturgical vessels represented substantial monetary contributions. The sumptuousness of the object, the quality of workmanship, and the costliness of materials were indices of the devout munificence of the patron. "The utilitarian, cultural, and economic values reflected and expressed by Eucharistic vessels were not coincidental. They were fundamental to their function and significance" (Bryson-Siegel, 1975, p. 19). Throughout my interest in the chalice, some of the things that have intrigued me about this vessel are the almost endless variety of sizes, the relationship of its component parts, and the many different surface treatments. My investigation into metalwork started with jewelry and eventually led

to vessels. My earlier works as a metalsmith (small cups and bowls), have changed and evolved into the chalice. Along with this evolution has come a deeper interest in the chalice, in the materials and techniques used in making them, and in this unique vessel's many forms and meanings.

Through the use of materials like silver and copper and the techniques of spinning, electroforming, and welding, I see a relationship between contemporary techniques and traditional materials. Through the vehicle of the chalice I have formed a link with the past, and with the use of modern techniques, a connection is made with the present.

Another important aspect of my work is an interest in multicultural imagery, specifically in the relationship between the Southwest Indian designs and the relatively recent phenomena of the "Crop Circles" in England and throughout the world. These powerful design and/or patterns of spiritual origin, though from a nonwestern religious source, could combine with the chalice to make a statement of spiritual strength.

The Statement of the Problem

The emotional and psychological reaction to a chalice is determined in part by the visual impact of the vessel. The goal of this problem has been to explore the visual impact of contemporary techniques and traditional materials, combined with multi-cultural imagery on the perception of the vessel as a chalice. In this exploration I have addressed the following questions:

1) What are the effects of symmetry and asymmetry on the chalice's visual impact?

2) What surface treatments are most effective in uniting the cup portion and the support system?

3) How does the use of multicultural imagery effect the perception of the vessel as a chalice?

Methodology

I have created a body of work which explores various effects on the visual impact of the chalice. I have explored a variety of sizes and proportional relationships, using a number of surface treatments (enameling, patina, hammering), and a range of techniques (raising, fabrication, electroforming), with a variety of materials (copper, silver, Corian), combining historical and contemporary methods to increase the diversity of the work. Multicultural imagery has been used where appropriate and its effect on the perception of the vessel as a chalice has been evaluated.

Six pieces were produced for this project. I have kept an ongoing journal about each of the six pieces in which the techniques and design approaches have been recorded. The journal has been edited and rewritten as a descriptive paper.

CHAPTER II

DISCUSSION OF THE WORK

Six vessels were completed for this project made of copper, silver, corian, pewter, brass and steel. The processes included: raising, fabrication, etching, enameling, welding, spinning, milling, fusing and cold connection. These six works were divided into three categories for discussion, determined by the original questions: 1) What were the effects of symmetry and asymmetry on the vessel's visual impact? 2) What surface treatments were most effective in uniting the cup portion and the support system? 3) How did the use of multicultural imagery effect the perception of the vessel as a chalice?

The exploration of this problem began by narrowing down my fifty-seven drawings to the six that would best respond to the aforementioned questions. Other considerations included cost of material, availability of material, achieved skill level and the amount of time needed for production of the individual pieces.

The question of symmetry focuses on the piece as a whole, not individual parts. All the cups and bases are round and symmetrical and therefore connoting a sense of predictability. In the two crop circle pieces I took a strong asymmetrical, two dimensional design and made it three dimensional. In doing this, I created a design that

changes as the chalice is turned or the viewer moves around the piece. This unpredictability heightens the viewer's interest with the potential of seeing something new as one moves around the vessel.

The "Silver Chalice", the "Crater Chalice", the "Korean Offering Chalice" and the "Pewter Chalice" are bilaterally symmetrical and connote a sense of stability, assurance and unity. Vertical symmetry is also explored in this first question with the large "Crop Circle" vessel and the "Crater Chalice". These two vessels have cups/bowls that are almost as wide as the bases and therefore break the anagogical (upward lifting) pyramid. However, equilibrium is maintained because the cup/bowl has similar mass and shape to the bases. The "Silver Chalice" has a large cup and is visually weighted towards the top, but the inverted triangular lines produced by the cup offer a degree of equilibrium balanced with the larger pyramid formed by the base. The use of these triangular forms is a traditional approach to anagogical design which included the use of precious materials in guiding the mind upward.

The "Silver Chalice" can also be discussed in exploring the second question, the use of texture in uniting the cup portion with its supporting structure. This vessel's texture is comprised of hammer marks left from planishing the surface. The base and stem portion have long vertical crosspeen indentations that guide the eye upward towards the cup. These indentations overlap to renew this movement and create a sense of energy directed to the cup. The transition from base to stem is helped through the use of a smooth

round twelve gauge wire. This smooth break allows the eye to rest, just for a second, between the two forms and then to continue upward in a rhythmic, legible, and logical direction to the cup. This movement ensures that all surface areas are explored. Before the viewer reaches the cup the texture changes again to the second smooth round wire which is another rest before reaching the cup. The cup texture is made up of small round indentations closely placed together to create a sparkling yet serene surface. This textural change holds the viewer and offers a resting place, allowing time to focus on the contents of the cup.

Other aspects of texture explored in the second question posed in the Statement of the Problem concern the effects achieved in juxtaposing metal (copper or silver) and corian or enamel. The "Crater Chalice" uses shiny planished copper next to a milled white corian stem with a nodus. This cup and stem unit is attached to an enameled truncated cone. The surface of the base is completely smooth but has an implied texture through the use of color. The depth of this illusion is accomplished by using fuzzy edges on the colored areas and putting light and dark colors next to each other. This enameled surface pattern has a net-like appearance that mimics the hammered surface of the bowl. These two "textured" surfaces are separated by an island of smoothness offering the viewer a resting place. The movement of the eye is being directed from one area to another, passing over and through the resting places. But even this resting place has some tension caused by the implied

weight of the bowl being supported by the smooth thin white stem.

The use of colored enamel next to white silver is another example of the use of color as implied texture, as in the "Large Crop Circle Chalice". The viewer's attention is constantly being maneuvered around the surface of the cup by the degree of emphasis given to the various colored areas of that surface. The movement of the eye is directed from one area to another, passing over or through the "rests" or de-emphasized areas (here the white silver). The analogous color scheme combined with the silver create a mosaic effect. This smooth surface is balanced with the stem and base portion of the vessel. The stem and base are cast bronze and formed copper with a Ferric Nitrate patina, thus achieving a reddish modeled look. The two voids in the stem allow white and/or color to be repeated as one's attention moves up or down the stem. These voids reveal interior surfaces and open up a direct route to the other side of the stem. The voids are important in this linear design because they establish the width, thickness and height of the stem. These voids are also extremely important in the "Small Crop Circle Vessel" because there is no additional color except for the patina.

This "Small Crop Circle Chalice" is the only vessel that has the cup welded to the stem. The smooth transition is accomplished by building up bronze around the stem, so it gradually flares out to meet the cup. The entire outside surface of this vessel is patinated, gradually lightening from base to cup. The silver lining serves as a

bright spot in this vessel and complies with Papal Ordinances regarding precious metals touching the Eucharistic Bread.

The two crop circle vessels and the "Korean Offering Chalice" are the three vessels that explore non-western imagery. Thus bringing in the multicultural aspect of the third question in the Statement of the Problem. Multiculturalism in this context is referring to the "borrowing from" rather than "living in" another culture. This is a significant point because the power and beauty of the imagery is co-opted without the intention of transferring its original meaning. The specific cultural messages are not fully understood, nor is their cultural significance relevant to my work. The imagery is a decorative element employed by me to enhance my own design. This is the case with the crop circle vessels and the Korean chalice. The design of the stems of the two crop circle chalices are derived from the Crop Circle Phenomenon found throughout the English countryside. The problem was to take this very strong two-dimensional design and make it work three-dimensionally. The stems are composed of several different elements or separate Crop Circle patterns stacked on top of each other. I chose the images that worked the best together, allowing a gradual tapering of the stem as it neared the top. My affinity for these patterns comes from my love for "ancient" design and the mystery behind the Crop Circles. These stacked elements create a powerful visual image even though there is no known religious significance. But, because they are now combined with a cup and an

elevating base they become "religious artifacts" possessing the strength and reverence of ceremonial use.

My "Korean Offering Cup" is an adaptation of an actual Korean Offering Cup which is approximately four inches tall, and made of wood. It is used in an intimate ceremony honoring ones own ancestors. The two cups (mine and the original) have the exact same proportions and are similar in color. By enlarging my cup by two inches in height and width I feel the intimacy has been decreased. It has changed from a private offering cup to a communal drinking vessel for ceremonial use. However, my cup does give the impression of being a chalice or ceremonial vessel because of the traditional lining of precious metal, in this case fine silver.

The "Silver Chalice", the "Crater Chalice" and the "Pewter Chalice" are of traditional western religious design. The "Crater Chalice" was originally an Ancient Greek design but with the addition of the nodus evolved into the Communal Eucharistic Chalice (Miller, p. 24) in the third century BC. The "Pewter Chalice" is an adaptation of a sixteenth century Spanish Missionary Chalice displayed in the Museum of the Rockies in Bozeman, MT. My changes include alterations to the stem and the material used in construction. In order to adapt this chalice I milled a cylinder of Corian to a stem of similar design as the original. The cup was fabricated of pewter and then hammered into the desired shape. The pewter base was spun over a turned wooden matrix. The cup, stem, and base were

connected with a threaded steel rod passed through the center of the Corian stem.

CHAPTER III

SUMMARY AND CONCLUSION

The six vessels made for this project can all be recognized as chalices to some degree or another. The New Catholic Encyclopedia, vol. #3, states that the "... modern chalice, under influence of functional design, concentrates on gracefulness of line, balance of proportion, and excellence of material rather than applied ornament". To me, the concept of "chaliceness" is the connotation that this vessel is to be used for significant ceremonies, not everyday secular use. Certainly all of my work produced for this project with the possible exception of the "Silver Chalice" imply this notion. The "Silver Chalice" though, perhaps due to its simple design, could be used at the dinner table as well as the altar. The two "Crop Circle Chalices" deal with my concept of multiculturalism. As I discussed earlier, I freely borrowed this imagery from the mysterious Crop Circles phenomenon and made it my own. These welds in the space time continuum, as some believe them to be, are powerful images that, I feel, belong on sacred vessels making offerings to heal the earth.

The "Pewter Chalice" is inspired by a 16th century Spanish design I saw in a museum. I was awed by this vessel's elegance and presence. It was 18" to 20" tall and 9" at the base. The cup I thought was small at first, but then realized that the missionary had to carry the Eucharistic wine with him over long distances and

needed to use it sparingly. My adaptation of this original stands 20.5" tall with the cup height at 4.25" and the base at just over 9" wide. This piece has presence, and could not be thought of for any other purpose other than the Mass.

The "Korean Chalice" seems totally designed for offering. To put it in western religious terms, it appears to be the Risen Christ with outstretched arms. Its design also affords an easy way to be passed from one to another by way of the built-in paten. I like this chalice very much. The design elements and the colors are matched very successfully with the deep orangish red of the copper combining with the whiteness of the silver on the interior of the bowl creating an ethereal effect.

The "Crater Chalice" started out to be a reconstruction of a Greek crater or wine glass. But as I kept working on raising the bowl the image changed in my mind. I knew that I was going to silver plate the inside of the bowl, enamel the base and add silver bezels on the lips of the base, but was having trouble with the intermediate area. I then decided to turn the middle of the stem out of Corian. I chose the off-white because it is a neutral color and would pull the copper and enameled surfaces together. But I did not want just a smooth cylinder, so I added a nodus with a twisted silver wire in the middle of it. The piece is very recognizable as a chalice.

My conclusions regarding the three questions posed in this exploration are as follows:

1) The asymmetrical vessels (the two "Crop Circle" chalices) do have a stronger visual impact on me. The reason for this is, I believe, two-fold. First, because one is unaccustomed to seeing asymmetrical religious or drinking vessels, they are much more uncommon. The other reason is that the design of the stems are very strong and atypical of anything I have seen before.

The "Silver Chalice", the "Pewter Chalice", the "Crater Chalice" and the "Korean Offering Chalice" are all recognizable as chalices, but are of typical "western" shape. They are beautiful on their own merits but symmetrical and more predictable.

2) The chalice that best displays unity in design is the "Silver Chalice". The texture from the planishing not only gives the piece an ethereal quality but completely ties the cup to its support system. The other five chalices, though they approach this problem in different ways, still do not have as smooth a transition from base to stem to cup. I believe this is due to the irregularity and diversity of the shapes in-between the base and cup. What, on the one hand, introduces interest and excitement, on the other hand produces a combination of terms that emphasize diversity and unity.

3) The use of multicultural imagery intensifies the visual impact of these vessels as chalices. This is, in part due to their size, with the two crop circle chalices are over a foot tall. And the "Korean Offering Chalice" with its built-in paten is too cumbersome for anything but ceremonial use. The use of multicultural imagery in the two crop circle chalices and the "Korean Offering Chalice" lend a sort

of exoticness and mystery to this body of work. This sense of the unfamiliar heightens the "sacredness" of these three vessels. The other design element that makes these three chalices read as "sacred" is the fine silver lining each one has inside the cup. This precious metal implies that it is meant for precious contents.

I feel that this project was successful because, through it, not only did I resolve in my work the three metalsmithing issues of texture, symmetry, and multicultural imagery, but I was able to further explore the artisan within me. Working on this problem has generated new ideas for future development and uncovered new techniques I want to master. But most of all it has strengthened the connection with that spiritual voice within me that guides my creativity.

ILLUSTRATIONS













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