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### Color as a stimulus for design in metalsmithing

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Thesis Proposal for the Master of Fine Arts Degree

College of Fine and Applied Arts  
Rochester Institute of Technology

Title: Color as a Stimulus for Design in Metalsmithing

Submitted By: Stephen G. Wright      Date: March 30, 1980

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The purpose of my thesis is to investigate color application within the craft of metalsmithing, intending to employ color as a tool to research design and composition.

My goal is to complete a series of pieces using a variety of materials, texture, form and, along with the magic of color, to explore further the art of silversmithing.

ROCHESTER INSTITUTE OF TECHNOLOGY

COLOR AS A STIMULUS FOR DESIGN IN METALSMITHING

A THESIS SUBMITTED TO  
THE FACULTY OF THE COLLEGE OF FINE  
AND APPLIED ARTS

IN CANDIDACY FOR THE DEGREE OF  
MASTER OF FINE ARTS

DEPARTMENT OF METALCRAFTS AND JEWELRY

BY

STEPHEN G. WRIGHT

OCTOBER 1980

APPROVALS

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## GOALS

As stated in my proposed goals, the purpose of this project was to investigate the application of color in metal-smithing. In other words, I employed color as a tool in my study of design and composition.

The completed thesis consists of a series of pieces which utilize a variety of materials, texture and form in conjunction with color.

Now that the pieces have been finished, it is possible to view them not as a separate group from any work completed prior to this thesis study, but as a culmination of all the work I have done in the past.

Using color as a research tool proved effective partly because it gave me the stimulus for creating new ideas. More importantly, because one element - color - was consciously drawn away from the many other aspects of design and composition, its influence could be more readily felt and consequently examined.

My record of development in this area shows growing awareness of what I already knew by "instinct" thus allowing for more sophistication and confidence in following through on design ideas. It confirms for me the belief that many times an act or decision made on impulse proves effective even after the final test.

## ACKNOWLEDGMENTS

I wish to thank all of those who have shared with me their knowledge in the fields of color and metalsmithing. In particular, I thank my friend and teacher, Hans Christensen, for his tremendous support and for so freely placing at my disposal his vast knowledge of metalworking. My thanks are also due for the help and guidance given to me by Robert Heischman as my Associate Advisor.

I am indebted to my friend, Michael Groppoli, for his uncounted hours of work in preparation of the superb photographs accompanying this writing. I am grateful for his, and other friends' and colleagues', encouragement in completing my studies for this project.



## LIST OF PHOTOGRAPHS

<u>Photograph Number</u>	<u>Name of Piece</u>	<u>Page</u>
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II	Copper Bowl	5
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## COLOR AS A STIMULUS FOR DESIGN IN METALSMITHING

Every person interprets what he sees, hears and feels. An artist's work is an attempt to express and comment on his interpretation of the world, whether his pieces serve practical purposes, function as objects of adornment, or simply exist for their own sake. Color is an unavoidable tool in this expression and an effective means to make more clear and exciting his ideas.

One obvious way in which color is effectively used to liven and enhance appearance is in the apparel industry. Fashion places much importance in the design and creation of jewelry. As the development of new materials and trends in this industry occurs, its influence in the area of jewelry, as a fashion accessory, is inevitable.

The Plastic Bracelet (Photograph I) marks my first conscious effort to use color within a piece. As a material used in jewelry, plastic is exploited for its relative lightness and inexpensiveness. It also allows one to make solid sculptural forms by casting a shape and developing it by machine or hand techniques, refining both form and finish. However, my attraction to plastics (polyester resin here) is due mainly to the wider variety of achievable colors than can be produced in metals. Colors can be contrasted against special situations such as showy clothes, flashing lights, loud music and dancing.

Interestingly enough, the development of plastics and their bright, hard, fast colors are both products of the twentieth century and are related to each other in their origin and uses.

My idea for the Plastic Bracelet was to bring into the design of the piece the mechanical elements (catch and hinge). By exaggerating the size of the hinge, the large, cylindrical shape became a dominant form within the piece. Attached to it are the two other parts which span the wrist and join together at a magnetic catch. The quality of the colored plastic allows the edges to show through, dramatizing the form with its translucency.



In the developmental process of my work there was a fundamental attraction to metal, especially different copper alloys, which afford many opportunities to explore the natural coloration of each metal. Composed of two parts (bowl/foot), each a different metal (copper/brass), the Copper Bowl (Photograph II) is a literal application of this principle.

The bowl was cut from a piece of heavy gauge annealed copper and raised with a large ball-peen hammer, creating a concave textural form.

The foot is made of different sizes of brass tubing that have been gathered together and inserted into the bottom of the bowl. More important than technique here is the end result. The verticality of the foot supports the bowl aloft. From the inside, the ends of the tubing make an irregular cluster forming a center and relating to the more organic peen marks left by the hammer. These marks create a tone and can be shaded depending upon the hammer and the blow. The result of this effort is the Copper Bowl - simple, quick to make, not profound in technique, materials or complexity of parts - a product of experiment and the meeting of materials.





Familiarity plays a large part in design development, styles, systems and techniques. To be familiar with a thing is to have experience with it. Having experienced something brings about knowledge and understanding of that thing and an ultimate ability to recall and eventually apply that experience. To illustrate this point, the Computer Pin (Photograph III) was derived from an experience with a small "basic" computer (the Apple II). With this particular machine, the operator, using a vocabulary consisting of line and point configurations with color, can compose a sequential program which visually is characteristic in its overlapping and stacking of colored forms. With this experience there evolved a construction of silver and copper along with three stones, combined to illustrate an interpretation of a potential visual image produced by a computer.



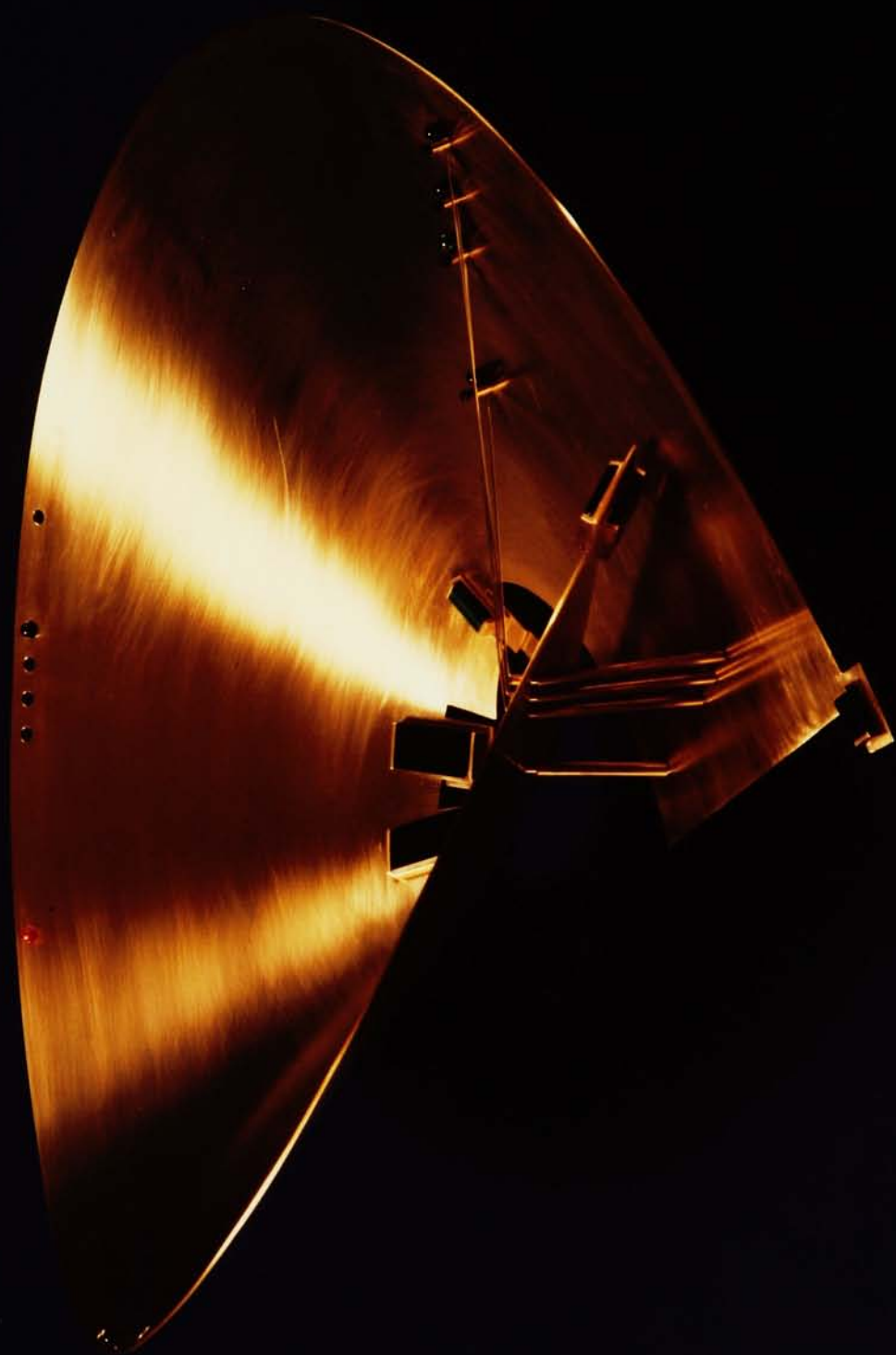


The initial concept of No Heat, No Beat (Photograph IV) was derived from quick gestural lines on paper dotted with color. From this spontaneous effort came the idea to make a bowl. Trying to capture the spontaneity of the drawing in a three-dimensional form, I cut out a number of drawings and pulled them together to form a concave form with sweeping, smooth sides. The transfer to metal from paper created a need for the cable system to hold the two ends in an overlap. The positioning of the stones took to a natural placement on the tabs at the bottom, serving as rests for supporting the form up off the table surface. Stones were also placed at the terminating points of overlapped ends and at the ends of cables, contrasting the metal's edge thickness and as a finishing detail.

As an observation and afterthought, it is curious to consider the shape created by its direct relation to the tension creating it. Could it be considered an abstraction of a technique? The traditional technique of raising a piece of metal is to work the metal in an annealed state with a hammer over some form, stretching or compressing the material. This process is repeated over and over, annealing and shaping with the hammer until the form and texture desired have been achieved.

To abstract is to draw out the essence of something. To abstract in art is to separate certain fundamentals from

the extraneous material surrounding it. When one views a work of art and finds there is beauty, it is not in the process that formed it. Very few people understand the mechanics of the painter's brushstrokes or the sculptor's process. We come to understand the final form. The technique used is irrelevant. The form of No Heat, No Beat was created by one simple movement. I have created a traditional object out of traditional materials, but with only the essentials of technique.



My own discovery and attraction to the disc shape and its easy transformation into a complex form by simple manipulation is illustrated again in Wall Piece (Photograph V).

Playing with paper cut-outs overlapping and twisting, an interesting variety of configurations was created. Coloration of the surfaces led to an even greater fascination with these paper forms. Given a single twist, a flat disc colored on one side suddenly moves out into space, one side with its color winding out and disappearing and then reappearing as another color. This play developed an assortment of exciting combinations using single, double and compound configurations.

The evolvement from paper to metal took several literal translations. My coloring with chalk and paints of the discs transformed into the use of gold and silver foil as contrasting colors. The ends of the discs are sandwiched between a construction of colored plastics which consists of black and white acrylic sheets. The colored areas are filled with a coloring process using acrylic paint on a transparent sheet which is backed with a metal leaf. This combination gives a certain depth and a lively quality to each colored panel.

This piece was originally mounted on a surface of carpet, thus showing a relationship between a pin on fabric. Critiques brought out concern with respect to the interplay of form on a two-dimensional background; i.e., the relationship of a piece of jewelry (a pin) to its garment, to which my

Wall Piece was compared. However, there was an unforeseeable problem with my critics' preconception of the carpet used - that being that it was, and never could be anything except, carpet. This problem led to my use of the painted canvas which, although first employed simply as a method of placating my colleagues, ultimately yielded maximum movement of the form on a constant background (Photograph VI).







Box of colors (Photograph VII) utilizes the same coloring techniques found during the construction of the Wall Piece. This box has a shell of sterling and the legs, or pods, are also sterling. However, the sliding drawer, when open, displays interior surfaces of silver leaf with a variety of colored bars moving diagonally across it. This assemblage of color is housed in two halves and is designed to come out half to each end.

The pods support the box itself, which stands on edge. These are also on a diagonal and have an inlaid coloring as a result of the same technique used on the panels of the Wall Piece.

My enjoyment of this finished work is due to its success as a visual statement in sterling, its function as a container and, most of all, because it marks the end of a series of works, each contributing in technique, form and experience to my research.





Copper Bowl II (Photograph VIII), although completed at the end of this series of pieces, was made to complement the first Copper Bowl. Basically, the composition is the same as was the first; copper alloyed metals are again used to display and take advantage of their natural colors and tones.

The bowl of this piece was raised with a heavy planishing hammer and, in addition, the technique discovered in No Heat, No Beat was used. Although on this piece the overlapping of the ends was created by hammering, a natural stress was created within the fabric of the metal, drawing the ends together.

For aesthetic reasons, the hammer marks were left in the surface and a rich tone was achieved with the patin to enhance that surface quality.

The foot and stamen parts are all held together by the use of two threaded screws attached to the bottom of the center part inside the bowl. These screws continue through the bases of the stamen projections and through to the bottom of the foot. It is on the underside of the foot that two nuts tighten and pull all the parts together.

This piece displays some similarity to a flower, with its sweeping edges, central motif and stamen-like elements. An enjoyable aspect, also, is the fact that every one of these parts working as a visual element is also working as an integral functional part.



A craftsman's goal is producing pieces; his works are a result of a creative, expressive effort utilizing tools and techniques known to him. Works of art are produced when he makes use of his existent powers to create something excellent. It is within easy reach to create by applying conventional techniques and aesthetics of the past. If he reaches a little farther, however, it is possible for him to capture something extra by integrating the known with the unknown or untested. My research was concerned with creating new pieces by fusing traditional design and techniques with my own discoveries and developing thoughts in an effort of expression. Thus, I developed a creative habit by combining what I know with what I think. My first thoughts and exploration were primitive and impulsive, as was my initial attraction to the study of color. Only in later stages did my work reach any degree of sophistication. In the final analysis, though, I can see that both my early instinctual work and later more intellectually thought out work contribute to the fulfillment of my goals and hopefully to the present state of metalsmithing. There is always room for further progress and accomplishment, of course, but I enjoyed my brief experimentation with color and metal together and feel my proposed goals were concluded with success and much personal satisfaction.



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