Lindenwood University
Digital Commons@Lindenwood University

Theses
Theses \& Dissertations

1997

## Prisms: A Study of Color as Light, Form and Motion

E. Deloras Bauer

Follow this and additional works at: https://digitalcommons.lindenwood.edu/theses
Part of the Art and Design Commons

## PRISMS

## A STUDY OF COLOR AS LIGHT, FORM AND MOTION

E. Deloras Bauer B.F.A.

# Master's Thesis Presented to the Faculty of The Department of Fine Art of Lindenwood College in Partial <br> Fulfillment of the Requirements for the Degree of Master of Art 

© Copyright by
E. Deloras Bauer

ALL RIGHTS RESERVED

# Professor Grant Hargate, Chairperson and Advisor 

## Professor Elaine C. Tillinger

## Professor Myron Kozman

1. Introduction ..... 1
2. Color as an Active Force ..... 3
3. Interaction of Color, Form, Motion and Light ..... 13
4. The Artist's Palette: A Love of Color ..... 16
5. Personal Use of Color ..... 25
End Notes and Bibliography ..... 31
Vita Auctoris ..... 32

## LIST OF ILLUSTRATIONS

Title Page

1. Prism-Light ..... 17
2. Prism-Dark ..... 18
3. Pond ..... 20
4. Japanese Pond ..... 21
5. Fire Baskets ..... 24
6. Veiling ..... 26
7. Disclosure ..... 27

Color is "magic." Children reach for it. Adults are physically and psychologically effected by it. Nearly every specie of life uses color to attract and mate. We are drawn to color as if it were a magnet. Yet science has no definite answers for why color exists or how we even see color as we do. One thing we do know, for most of us, color gives our world a special dazzle.

Over the years, I have related to color in many ways. For a period of time I used personal color analysis as a consultation tool in my business of designing women's clothing. Color choices became a solid base for knowing how to design the right garments for very selective customers. I observed that children were more instinctive about color choices than were adults. While women were more personal in their choices, men were more environmental in their approach to color. Women would choose a color because it made them look good or feel good. But men liked color because of the effect on their surroundings or just... because. While much of my observations had to do with cultural effects, we do know that on a broad scale, males have less color receptors (cones) than do females and are more prone to certain kinds of colorblindness. What I did discover in this process was that color played an important role in nearly every choice that had to do with the basics of life; food, clothing and environment.

My earliest memories are of color. Watching trees turn from green to red, yellow or rust; opening a new box of crayons and making that first mark; learning
to walk in my mother's bright red high heel shoes; and best of all, getting new colored ribbons for my hair (the plaids were best - they had more colors).

I loved neon signs. From flying eagles to bright tumbling clowns, St. Louis was full of neon in the 1940 's and 1950's. We traveled Route 66 often, and from Coral Court to the "Eat and Get Gas" sign at Cuba, I counted the neon signs. The red, yellow, blue and green signs were a visual journal of my growing up and they left an indelible impression on my spirit as well as my mind.

So much of my internal vision is color related. I have memories as a child of closing my eyes and just "seeing" colors in a floating field of velvet black. As I grew, I began to try to translate these images into some kind of visual form. This led to an ongoing love affair with the process and activity of color. I felt that I had arrived when I was given my first set of professional pastels for my thirteenth birthday. To graduate from CRAYONS to PASTELS was as big a step for me as going from grade school to high school. This was the stuff of real ART. No longer was I limited to childhood scribbles with broken sticks of colored wax, I now had a real art medium in my hands.

So, my journey into the realm of color continues as I try to find answers to the many questions concerning the presence and reality of color as an active force in our world.

## COLOR AS AN ACTIVE FORCE

Pure or "white" sunlight is unbroken light composed of different wavelengths, each of which represent a different color in the spectrum. Sir Isaac Newton demonstrated that by the use of a prism one could break apart pure light into its color components. By passing white light through a prism of flat, unparallel glass surfaces the wavelengths are separated into the various colors of what he then called the "spectrum." This spectrum represents seven separate colors and their variations in a band of violet, indigo, blue, green, yellow, orange and red.

Saturation of these colors is not dependent upon one factor. Whether a color is pure, pastel, brownish or gray is a collaboration of various factors. Some of these factors are: what is intrinsic in a color surface, what the viewer perceives, and how pure are the wavelengths of light. At this point, color chemists are not quite sure just what the process of color saturation is, but it seems to be a function of the molecular structure of matter combined in a multiplicity of ways with the variety of color wavelengths and the individual viewers retinal reception of color.

There are an infinite variety of wavelength color mixtures that can be perceived by the human eye. Some are more readily seen and identified by most people than others. The longer wavelengths of reds and oranges are very dominate and can be seen by all people except for those with red/green colorblindness. In tests with color theater gels, red so dominated the spectrum that even when all other colors were present in the light source, the viewer still perceived the
projected color as being "red". The shorter the wavelength the less dominate the color seemed to be. With the very short wavelength of violet, just the presence of pale yellow was able to completely block the color violet.

All color is related to light rays in various lengths. Whether we think of color as a pigment or pure light is a matter of which side of the chemical process you wish to start with. If one starts with color as a light ray or packet of energy we can know certain things about color from this perspective. We can know, for instance, that the energy contained in the very short waves of violet are more damaging than the longer waves of reds. This is why we tan (or burn) when exposed to ultraviolet light of the sun or any other short ray of light such as tanning beds, etc. We can, also, know that molecular substances that absorb the most light rays appear to be the darkest in tonality. Whereas those that absorb the least light appear to be the lightest. And those that absorb selectively (only certain wavelengths) reflect only those colors that are not absorbed. All these factors lead us to a discussion of color as pigment.

In any study of the pigment colors, there is always a need to categorize the basic hues into some form for study. One of the best ways to do this is to use the Munsel system of color arrangement. On the basic color wheel is placed primary(red, yellow, blue), secondary(green, orange, violet) and tertiary(redorange, yellow-orange, yellow-green, blue-green, blue-violet, and red-violet) hues. These 12 colors and the infinite variety of mixtures produce the color classification system along with two other qualities known as value and chroma. While hue generally refers to the color, value is the lightness or darkness of that color and
chroma defines the amount of hue in any given sample. The nature of pigmentation is such that some of the white or pure light stays in the substance while some of the light rays are reflected or given off as "color."

The chemical definition of pigment is any molecule that reflects or transmits visible light, or both. Pigments are arbitrarily divided into two categories. The first group contain nitrogen and includes hemoglobins, chlorophylls, bile and melanin. The second group does not contain nitrogen and includes carotenoids and flavonoids. The color of a pigment depends upon its ability to absorb certain wavelengths of light and to reflect others. For instance chlorophyll absorbs violets, reds and oranges and reflects the yellow to green spectrum, giving vegetation its characteristic green color.

The saturation of a color depends upon how much of the light rays are absorbed, how_much of the rays are reflected or how much of the light rays are transmitted by the molecular structure of an object. For instance, a pane of glass transmits virtually all light rays and therefore appears clear while a piece of black felt absorbs all light rays and therefore appears black. In certain instances, color can be produced by filtering which combines all the molecular activities. In filtering, some of the light rays are transmitted, some are absorbed and some are reflected. In nature, we see this effect in a sunset where the molecules in the atmosphere transmit certain light wavelengths, absorb some and reflect others. Transparent colored gels are filters as are pieces of stained glass, watercolor pigments, photographic film, sheer fabric and other forms of translucency

The pleasing effects of color depend to a great extent on the balance and harmony of one color to another. Color variety is not only enjoyable but both psychologically and physically beneficial as well. Too much of any one color or color group may have a negative effect on the viewer, particularly if the hue is saturated. The stronger the color, the greater the need to balance it with other color groups, especially its compliments. However, compliments of equal intensity and amount tend to be fatiguing to the viewer. For instance, bright green is better balanced by softer or deeper shades of red rather than by its strong direct opposite, especially if the color field must be viewed for long periods of time. Softer, paler shades of color can be balanced by associated or analogous colors as well as intense opposites.

The luminosity of a color is increased by color association. Juxtaposing the highly visible yellow with the least visible violet in a 1 to 3 ratio (I-yellow,3violet) not only creates color balance, but also increases the visibility of the violet. Orange and blue are a 1 to 2 ratio ( 1-orange, 2-blue ) and red and green are a 1 to 1 ratio. When these ratios are present, the harmonics, balance and luminosity of the colors are at their peak.

Painters in the Post Impressionist period used these juxtapositions of color to create exciting new ways to paint. By placing dots of opposing colors next to each other, the viewer then became a participant in the color mixing process by the optical illusion of a new color emerging from the canvas. With the proper distance between the viewer and the canvas, the figures thus "painted" with color
dots was evident. This style of painting ("pointillism") was the result of some very scientific research into the nature of visual perception, or the optics of color

The way in which we perceive color, depends upon a variety of factors. Some of these factors are: intensity of the light in a color field; what wavelengths are being reflected, absorbed, and/or transferred; harmony, balance and juxtaposition of color; saturation and luminosity of the pigments or lights; and last of all how the individual retina receives and transmits the energy of the light.

Color illusions can be created by overlapping, pairing compliments, size ratios, positioning, juxtaposition, and saturation of color. One of the most apparent of illusions is the spatial effect of advancing and receding. When two colors of the same size, intensity, and saturation are positioned in conjunction with one another, those colors closest to white ( yellows and yellow-oranges) appear to advance while those colors closest to black (Blues and violets) appear to recede. This is because the higher the luminosity or light intensity (white being the brightest) the greater the visual acuity. Renaissance painters discovered this effect and developed "chiaroscuro", the use of light and dark to give shape and dimension to flat forms.

Color is both constant and changeable. What color really is physically, is not what we perceive with our human eyes. We cannot separate out (without specific devices) one color from another in normal vision. What we perceive as a given color is seen in conjunction with numerous other colors in close harmony, balance or contrast and therefore is profoundly affected by that association. Just
so, any given color will be perceived as changing when the associated field or light source changes.

The constancy of color refers to the ability of color to retain its identity in environmental light. Red is perceived as red whether under strong illumination or weak illumination. Perception of value and chroma may change but hue remains constant. Hering referred to this phenomenon as simultaneous or instant adaptation of the eye to color. Constancy and change in relation to color perception was a part of the optical studies with which painters like Seurat and Van Gogh used to create and transfer their "real" experiences onto canvas with dabs of paint.

Theories of color vision have been proposed by several scientific studies. Some of the most recognized are those of Ewald Hering, Herman von Helmholtz and Edwin Land. Hering's theory believes that the retinal receptor cells are organized by complimentary pairs of colors. The pairs of colors are white/black, yellow/blue(violet) and red/green. The receptor cells are designed to activate the opposite process when stimulated by the energy of a given hue of a pair.

Helmholtz's theory proposes a tri-color system whereby the receptors in the retina respond to the specific wavelengths of the various colors, red being the longest, blue(violet) being the shortest and green lying somewhere in between.

Land's Retinex Theory proposes that the eye and the brain act as a unit, sensitive to the varying wavelengths of specific colors. The image of a particular color is the result of the liaison between the eye and brain as this unit reacts to the luminosity of the reflected image.

The science of color is certainly not well defined. Most of the activity of the color vision process remains a mystery held in place by an extremely complex set of operational principals that are known to exist but are illusive in their definition. Although we can know about the rods, cones and retina of the eye and can locate the visual cortex, the function of color vision and even vision itself is still shrouded in illusion. Is green really green, or is that just a trick played out by light, chemical properties of the viewed surface, atmosphere through which an object is seen, association with others colors or any number of variables which strike the retina of our eyes? Do we perceive in fact or is vision just a series of illusions? The truth perhaps lies somewhere in between. The more we know about a process, the less illusory is the truth. We know much more now than we did about color and vision but much more needs to be known and demonstrated.

Albers, in his work with after image states that "no normal eye, not even the most trained one, is foolproof against color deception." (1,23) After image seems to be a distinct process that takes place in the retina whereby the eye is fatigued by staring at length at one color then shifting to look at plain white and seeing the compliment of that color. Albers further says that, "He who claims to see colors independent of their illusionary changes fools only himself and no one else." $(1,23)$

Tests with subjects concerning color have proven that there is a definite relationship between color and mood. Certain colors themselves are associated with various psychological conditions, such as: blue is sad; yellow is cowardly; green is uninitiated; black is sorrowful; white is pure; etc. We associate color
with many factors in our lives; mood, character, emotions, likes \& dislikes, personal opinions, energy, lethargy and many other effects on our well being or lack of well being.

In this same vein, how we see other people is often affected by color. A few years ago corporate America was overtaken by the color analysis process and how that influenced the hiring and positioning of employees in any given field. In companies where "The Company" was valued above the individual, employees were chosen for their ability to conform to their dress codes, particularly in the area of color choices. Navy blue, shades of gray, black and white, and perhaps touches of burgundy were the acceptable choices for the executive look. Red and pinks, yellows and particularly green were the colors that were thought to express character that was not compatible with the management of a company. Image consultants popped up everywhere and taught America's executives how to make a good impression with color.

These same image consultants, also, taught a popular audience how to make the most of personal color choices in the realm of dress, make-up, and environmental areas of their lives. People were told that they were either a warm or cool toned person and then categorized as to whether they were a summer, a fall, a winter, or a spring . By organizing certain color choices around these criteria, they were then given a limited number of acceptable colors that they were then told to work with. Much of this information was valuable in that it addressed the need for a good self image and allowed people to choose colors that maximized their potential. However, it also built boxes for people and
pigeonholed their range of choices in a very narrow field that may have been more psychologically disturbing than the lack of self esteem.

In studies of light and color, hues differ in their quality and makeup when exposed to different types of light. In direct intense sunlight all hues are at maximum intensity. As the intensity and angle of light shifts, various phenomenon happen. Reds retain the most hue and reflectivity, then yellows and greens followed by blues and violets. When tested under artificial light in a controlled studio setting, the cooler greens and blues appeared more saturated in color than the warm reds and yellow. Various studies have been conducted in the field of light and color and the reflecting qualities of the hues depending upon their saturation and the amount of light that is hitting the colored surface at any given time. The variables are many and the effects are magical when recorded or viewed for long stretches of time.

Prismatic color and pigmented color are at the same time related and different. Prismatic color is a quality of light itself. It is the elements of light broken down into its component parts. Without light, color would not exist. Indeed, color is an integral part of light and does not exist apart from light itself.

Pigmented color is a chemical process that reflects various colors of the spectrum and absorbs others. Pigmented color can be viewed as surface, volume or film. However, no color would be apparent unless light strikes the pigmentation and gives off some reflection. For instance some surfaces reflect no light at all and therefore appear black which is the absorption of all light colors. Some surfaces reflect all light colors and appear white. Differences in the color
hues of any given surface are the result of the various chemical make-up of the surface itself.

Some objects act as a filter or film which add another dimension to the activity of color. This filter acts as a transferring agent of light. Some filters are clear (such as colorless glass) and all light is transferred through the filter and onto another surface. Other filters are themselves made up of certain pigments. Some of these kinds of filters are: air, water, skin, stained glass, colored gel filters, some plastics, etc. Most filters contain some particles of pigment and therefore create three simultaneous effects. These filters transfer light, they absorb light and they reflect light.

## THE INTERACTION OF COLOR WITH LIGHT, FORM AND MOTION

In an excerpt from his teaching ON LIGHT AND COLOR , Hans Hofmann states that:

> We recognize visual form only by means of light, and light only by means of form, and we further recognize that color is an effect of light in relation to form and its inherent texture. In nature light creates color; in painting color creates light A painting must have form and light unity. It must light up from the inside through the intrinsic qualities which color relations offer. It must not be illuminated from the outside by superficial effects. When it lights up from the inside, the painted surface breathes, because the interval relations which dominate the whole cause it to oscillate and vibrate. $(3,543)$

Color as a transmitter of light had been used for centuries. Baroque painters captured "light" with their choices of color and tonality in a form called tenebrism developed by Caravaggio and used by Gentileschi, Rembrandt, de La Tour and others. This balance of light and dark gave paintings a sense of illumination from within that had been lacking in previous work. Impressionists painters developed atmosphere as well as light in their use of the juxtaposition of colors to portray a special essence or quality of air surrounding the object or landscape that was being painted. Colorists of the Post Impressionist period, particularly Van Gogh, Gauguin, Marc and others used bright intense colors to project light right into the viewer's space. Painting became of and about color. The picture plane itself was defined by the use of color rather than by the use of line. Color had become the object.

Classically, form is defined by line, shape, volume and position within a composition. However, painters such as Cezanne, Van Gogh and Gauguin, began to work with color planes that defined their forms in ways that earlier artists had not attempted. Matisse, Nolde, Marc and other artists of this era also used color to represent not only form but emotion and ideas as well. Wassily Kandinsky in his work with color began to dispense with recognizable form altogether and by the simple use of colored shapes and lines formed the basis of nonobjective art. For Kandinsky, color was so intense that it could communicate directly with the soul and involve other senses as well. Color not only had form, it could be described as rough, prickly, dry or smooth. He found that taste, sounds and the sense of smell were associated with color as well. But sight has been known to harmonize not only with the sense of taste but with other senses.... The expression "perfumed colors' is met with... The sound of colors is so definite that it would be hard to find anyone who would express bright yellow with base notes, or dark lake with the treble. $(3,154)$

Although Kandinsky maintained that form could stand alone but color could not $(8,28)$, his very work set the stage for the more recent color field painters to use pure color as a stand alone form. Rothko, Newman, Frankenthaler and Noland as well as others all found color to have its own special form.

We can readily see the intrinsic relationship between color and light, and colorists have clearly demonstrated that color can have form. The question remains; can color portray a sense of motion? The simple answer is, yes. Those colors closest to white (or pure light) advance out from the picture plane
and into the viewers space and those colors closest to black recede back into the picture plane. This chiaroscuro is the mechanism for lending three dimensionality to a two dimensional surface. Here we can see that color can give us a push/pull or forward and back motion, but can color portray a sense of rhythm, flow or movement side to side? When looking at Morris Louis' painting called Moving In or Gene Davis' Moon Dog as well as Ellsworth Kelly's connecting blocks of pure color one is certainly aware of the rhythmic movement of the eye as it moves from one color to the next. But perhaps the most adept at making color move on a two dimensional surface is Frank Stella. The colors of Jasper's Dilemma or Agbatana III are a constantly shifting focal plane that both moves and unsettles the eye as well as the emotions of the viewer.

Of these three elements; light, form and motion, we know that light is the most intrinsic to color. However, both form and motion can become qualities of color when used in thoughtful and creative ways. This very creativity springs from the playground of the artist's palette and a love of color as a primary tool of expression.

Van Gogh maintained "... that black and white are also colors...for their simultaneous contrast is as striking as that of green and red, for instance." $(3,33)$ When primarily working as a colorist, to take ANY color from one's palette is to make one that much poorer. All color is valuable and has its purpose. For a classical artist, black and white are perhaps too stark for much benefit, but for someone who needs the sharp contrasts of intense light and deep dark, what better choice could be made. When choosing the essence of the two paintings called Prism-Light and Prism-Dark I choose to use the extremes of contrast; black and white. All the other color choices are the same for both paintings. These same colors are profoundly effected by the underlying essence of each painting. In Prism-Light all the colors advance out toward the viewer, while the colors in Prism-Dark tend to recede. In both these paintings I decided to let my love of pure color play to its fullest extent. To do this, it is sometimes difficult to know when enough work is enough. Although it is uncharacteristic of me to overwork a painting, on these two I returned again and again to add more paint, until finally I had to simply put them away and leave them alone. I have found that to let a painting rest and "breath" on its own for a while helps a work settle into its own lines and spaces. If the painting is good or has value, it will get better. If it needs something or is simply a bad painting, that too will show up in time. So, for whatever my playing with color has produced, it will show up for good or ill in these two works.


Prism-Light
Oil on Unprepared Canvas
$36^{\prime \prime} \times 48^{\prime \prime}$


Prism-Dark
Oil on Unprepared Canvas
$36^{\prime \prime} \times 48$ "

In my earlier approaches to experimenting with color, I bathed my canvases with stroke after stroke of pure color to see what shapes, forms and tones would be created. The wonderful surprises of blends and contrasts lent an excitement to my work that still catches me off guard at odd moments. In applying the pure unblended color to the canvas and watching the colors take shape I am constantly reminded of the infinite variety of life. It is that very variety that keeps me painting.

The rhythm and harmony of color combinations are a never ending delight to me. In the very first Pond painting, I noticed a harmonious interplay of color combinations as they emerged from the dark shadowy background. I had been intrigued by the possibilities of "raw" or ungessoed canvas as a ground upon which to paint. As I saw the first strokes of color blend and disappear into the fibers of the canvas, I wondered if I could really build up the texture I was so used to seeing as my finished product. However, I soon noticed that after the first layer or two of color soaked into the canvas, the paint began to take on another quality that made for a deep harmony of contrasts until the final surface rendering was glistening and textural. This contrast of background and foreground, receding and advancing, dry and wet, dull and glistening set up certain rhythms within the composition that pleased me and invited me into the picture plane. I still take short "mental vacations" at the Japanese Pond on the occasions when it lives in my space. Kandinsky maintained that:

Generally speaking, color directly influences the soul. Color is the keyboard, the eyes are the hammers, the soul is the piano with many strings. The artist is


Pond
Oil on Unprepared Canvas
$36^{\prime \prime} \times 48$ "


Japanese Pond
Oil on Unprepared Canvas
40 " x 60 "
the hand that plays, touching one key or another purposively, to cause vibrations in the soul. It is evident therefore, that color harmony must rest ultimately on purposive playing upon the human soul; this is one of the guiding principals of internal necessity. $(3,154-155)$

Upon first seeing the work of Gabriele Münter I was struck by the brilliant contrasts of color and unashamed vividness with which she used them. Although I do not seek to imitate her style, that vividness still plays in an undercurrent upon my soul. Every time a rich cobalt blue or deep vermilion appear in my canvases, I sense a connection to her colors. In like ways I am influenced by the brilliant sunny yellows of Van Gogh (I was held immobile for several minutes when I first saw his original Olive Grove in Sunlight ), Emil Nolde's powerful and expressive color choices in his Life of Christ altar piece and Hans Hofmann's pure blocks of color that vibrate with contrasts and harmony.

In my own work with color contrasts, I like to place two brilliant colors upon my palette knife and stroke the canvas to see what happens as pure color and new color emerge side by side. Sometimes they make rivers of flowing color. At other times the colors break apart and reform to create pockets of pure color inside unique blends that often leave me wondering just how such a color came about. My choices are all instinctual with very little foreknowledge of the outcome. At the same time I have perhaps had a painting finished in my mind for weeks before I approach the canvas. The general painting that is in my mind is combined with totally instinctual color choices and the result is almost always a
surprise to me as it appears on the easel. In this way, painting seems to be a form of magic with color the magician.


Firebaskets
Acrylic on Canvas
$30 " \times 36^{\prime \prime}$

## PERSONAL USE OF COLOR

In my work with color, I have chosen several styles to explore. At first I simply played with the blobs of colored oils. I put them on the canvas in random patterns just to see what could be created and what effects would emerge. When the patterns began to take shape, I soon realized that several methods of approach were possible. The first method was simply to stroke the canvas or wood with a variety of colored paints in their pure forms. This created an abstract, nonobjective, color field painting. Another style with which I choose to experiment was to create the human figure with heavy strokes of color layered one on another. From there I tried various landscapes which did not satisfy me very much until I began to work on raw canvas. With this method, I could create distance and perspective by simply allowing the initial colors to soak into the ground and work forward toward the foreground by layering until the right finish was attained. One of my favorite techniques is to work with simple graphics that express an idea or psychological truth to which anyone can readily relate. The boldness of the forms as expressed with layered and textured paint are hard to miss and tend to break through our human barriers of protection to confront the viewer with him or herself.

In the Fire Baskets I looked for ways to transmit light from behind the painting as well as to reflect light off the surface. The raw canvas was a good place to start with this, also. To increase the sheerness of the background, I used acrylics globs of paint that were sprayed with water until they were dispersed and


Veiling
Oil on Unprepared Canvas
30 " $\times 36^{\prime \prime}$


## Disclosure

Oil on Unprepared Canvas
$30^{\prime \prime} \times 36^{\prime \prime}$
flowing across the surface of the canvas. Upon this wet ground I placed heavy applications of paint and metallics to define the images of baskets. When the paintings were dry, the reds and oranges of the background seemed to be fire emanating from the interior of the woven objects and when exposed to backlighting they appeared to glow.

In working with heavy layered paint, I began to score lines into the surface of the paint that left trails of piled up color much like a snow plow in heavy snow. Two paintings, Veiling and Disclosure are the result of this technique. Visually, the works change significantly as one walks from one side of the painting to another as a result of the eye seeing a different perspective of the painted surface. What seems to be hidden at one point, is revealed at another. An underlying wash of bright colors or mixture of white and colors is overlaid with dark brooding ones and scored through with a palette knife to reveal what is under the surface. Because we are all both hidden and revealed at the same time, I chose to use this technique to express these qualities.

More recently, I have been using different types of ground and finding unique ways to use color to express my ideas. I find glass to be intriguing. Small glass panels painted with only portions of a work to be assembled onto a surface in layers which both absorb and reflect light is an area of interest to me. Also, small wood panels that can be framed with deep jutting frames of various widths and painted in heavy impasto to be assembled in groups on a wall, floor or other surface is a possibility. Another possibility and one in which I experimented last year is to paint with colored light. I recreated a painting of

Edvard Munch's called White Nights in stained glass. The work lent itself well to the medium of colored glass, however, a certain difficulty presented itself. When I choose the glass to work into the composition, all the pieces that were to represent sky and water turned a muddy or amber color as light passed through. It took three or four trips to the glass studio and several hours of testing the pieces with strong light to get the right colors of blue with which to work. As it turned out, the sky has images of clouds and the water has natural ripples when the painting is projected upon a wall by passing strong light through the stained glass panel.

In developing a style in which color plays an important key, I choose to use strong, vibrant color as opposed to pale or weak colors. I believe in the strength of the human spirit and nothing captures the essence of spirit better than color and lots of it.

I believe that the artist has great work to do. Art is not just about making beauty. It is about holding a mirror up to ourselves in order that we may take a good look at who we are and what we have become. If what we are is not satisfactory or needs to be changed, it is the artist who shows us what is necessary. In writing in Concerning the Spiritual in Art, Kandinsky had these things to say about painting:

Painting is an art, and art is not vague production, transitory and isolated, but a power which must be directed to the improvement and refinement of the human soul - to, in fact, the raising of the spiritual triangle... He (the artist)
must search deeply into his own soul, develop and tend it, so that his art has something to clothe, and does not remain a glove without a hand. $(8,54)$

In any case, to paint with rich, saturated color is to excite and motivate the human spirit. For spirit is energy; and energy is light; and light is color; and color is ... magic!

## End Notes and Bibliography

1. Albers, Josef. Interaction of Color. Yale University Press. New Haven, CT.; London 1963
2. Birren, F. Color Perception in Art. Grolier Multimedia Encyclopedia . Version 7.0. 1995
3. Chipp, Herschel B. Theories of Modern Art University of California Press. 1968
4. Color. Compton's Interactive Encyclopedia. Compton's New Media, Inc. 1993, 1994.
5. Davidoff, Jules. Cognition through Color Grolier Multimedia Encyclopedia. Version 7.0 1995
6. De Grandis, Luigina. Theory and Use of Color. Prentice-Hall. Englewood Cliffs, NJ. 1984
7. Evans, Ralph M. The Perception of Color. Grolier Multimedia Encyclopedia Version 7.01995
8. Kandinsky, Wassily. Concerning the Spiritual in Art. Dover Publications Inc.. New York. 1977
9. Light. Microsoft Encarta Microsoft Corp. Funk and Wagnalls Corp. 1994
10. Mollen, John and Sharpe, Ted. Colour Vision, Physiology and Psychophysics . Grolier Multimedia Encyclopedia 1995
11. Swirnoff, Lois. Dimensional Color. Van Nostrand Reinhold. New York 1992
