

CHAPTER 14

Color Theories

The Good, the Bad and the Useless Although the use of color is not without pitfalls, unlike drawing or pictorial composition, it is the most flexible and tolerant of individual taste of all the aspects of painting. While many of us seem to be born with the ability to draw, few of us are born colorists simply because good color can be achieved only through an intelligent approach born of proper study. No other element of Art has more mystery surrounding it than the study of color. From that mystery have arisen countless color theories. Some theories have strong foundations built on proven and observable fact. Other of these theories are, well---frankly, they are bizarre. In the beginning of this chapter we'll discuss a bit of the history surrounding a few of the more bizarre and, unfortunately, influential theories which continue to bring new terrors to students of color. My opinions may fly in the face of what you've learnt at university, but please give them a hearing.

In the chaos following the First World War, the ashes of Germany became the breeding ground for a new social order. Socialism took firm root in the fertile ground of post-war discontent. Socialist thought crept into everything, even unlikely areas like the arts, and it gave birth to the artistic manifesto. With their many manifestos, the new men of the New Society shouted down figurative painting as merely "illustrating the myths of the intellectual bourgeois." These new anti-intellectuals set about to create art forms which would become illustrations of their social and political manifestos. Out of that curious period came this call to arms of the Novembergruppe; "Painters, Architects, Sculptors, you whom the bourgeoisie pays with high rewards for your work---out of

vanity, snobbery, and boredom---Hear! To this money clings the sweat and blood and nervous energy of thousands of poor hounded human beings--- Hear! It is unclean profit . . . we must be true socialists--- we must kindle the highest socialist virtue: the brotherhood of man." Walter Gropius, apart from founding the Bauhaus, was also chairman of the Novembergruppe's Arbeitsrat für Kunst (Working Council for Art). He sought to join all of the arts together "under the wing of a great architecture." Appointing himself Great Architect and sounding much like the jackbooted men who would soon follow, he wrote "the intellectual bourgeois has proved himself unfit to be the bearer of a German culture." He predicted a Bauhaus/Socialist New World Order arising from unsuspected quarters when he wrote, "New, intellectually undeveloped levels of our people are rising from the depths. They are our chief hope." Unfortunately, he got his wish . . . and the world got Hitler. A common thread joined those art forms spawned by the new anti-intellectualism. Artistic movements like Futurism, Vorticism, Orphism, Purism and Surrealism, were distinguished not so much as aesthetic movements but as esoteric codes designed to baffle the hated bourgeoisie (never mind that later Socialists would reject these incomprehensibly coded aesthetic messages to seek comfort in the most puerile and saccharine of bourgeois art, and never mind that the artists themselves became the prototypes of the successful capitalist). It was only natural that, in those giddy early years, The Movement would produce its own peculiar theories concerning politically correct ways of seeing. Rising out of this yeasty mix of aesthetics and politics and armed with correct new color theories and a reformer's zeal, sprung Josef Albers and Johannes Itten. Albers and Itten's color theories had little to do with the practical problems encountered by the figurative artist. To their way of thinking, that was all to the better. But when World Socialism finally rejected their ideas as counter-

revolutionary, they, along with Gropius, beat a hasty retreat to those places still cordial to arcane and unprovable theories...the universities. The sheltered hot house atmosphere of the university provided a congenial rallying place where countless students journeyed forth to kneel at the feet of their idols. The trouble was, those students never got up off their knees-- they went on to teach those unworkable coded theories to the next generation of easily gulled students. Itten's book, *The Art of Color*, attempted to validate his theories through a clever technique well known in advertising agencies. By juxtaposing his color charts next to the work of great painters he hoped to add credence to his theories. Strangely, Itten chose painters who died well before the advent of the modern pigments and colors shown in his charts. Those great master's pictures have as little bearing on his color theories as are the trim young models in beer commercials a result of drinking the advertiser's product. To appear original, Itten abandoned the ten-color wheel of the Munsell System in order to create his idiosyncratic Twelve Color Star and a seven value Color Sphere. The dilemma was; how was the artist to apply rigidly circumscribed charts, blocks, stars and spheres of color to painting the delicate passages inherent in figurative painting? Those uncompromising Bauhaus precepts have proved to be coarse, clumsy tools ill suited to producing that grace and finesse we associate with figurative painting. Thus far, the only application of Albers' and Itten's theories have been in short-lived art fads like Color Field painting and Op Art. I don't want to leave you with the impression that all formal color theories are useless to the illustrator and painter. Quite the contrary. Unlike Albers and Itten (both of whose theories are never mentioned in serious writings on color), a few well grounded color theorists like Faber Birren, concentrated on practical color effects of use to the artist and craftsman. Birren's book, *Creative Color* should be required reading for

any illustrator or painter. The color effects shown in Creative Color are as extraordinary as they are useful. Birren was not the only one to develop practical color theories with the artist in mind. Far ahead of its time was the fundamental work from which much practical color theory grows--- M.E. Chevreul's 1839 book, The Principles of Harmony and Contrast of Color. It was from within this book that the color theories of the Impressionists took root. Although approaching color from a more scientific standpoint Ogden Rood, Albert Munsell, Wilhelm Ostwald and Denman Ross all produced work of lasting value to the artist. The Munsell Color System: A decade before the Novembergruppe issued its first artistic manifesto in the city of Weimar, Albert H. Munsell had developed an elegant system of color notation in the city of Boston. That system has become the universal standard by which colors are judged. It should be the standard by which color theories are judged. Professor Munsell sought to bring color description away from whimsical and confusing names like 'Firecracker Red' and 'Chinese Red' into a standardized language by which color could be accurately specified. He succeeded in doing much more than that.

Munsell separated color into three fundamental components. The first dimension was HUE, "The quality by which we distinguish one color from another, as a red from a yellow, a green, a blue or a purple." He divided the hues into ten equal steps on a band. The band was bent around to form a hoop---the Color Wheel. In naming the Hues, he did not use names like Orange. What is commonly called orange, for example, he called yellow-red because it is a mixture of those two primary hues. The second dimension of color is the easiest one to understand. VALUE is "The quality by which we distinguish a light color from a dark one." The scale used to depict value is a vertical pole divided into nine increments of neutral grey. A pure black was

added at the bottom and pure white added to the top. CHROMA describes the brilliancy or strength of a specific Hue at any given Value. By extending a scale horizontally from the neutral pole of the Value scale, an easily understood graphic representation of Chroma Strength can be made. Red is at its most brilliant (has its highest Chroma Strength) at Value 5 on the neutral pole, it extends on the horizontal scale to its maximum Chroma Strength of 10. As the horizontal scale approaches the pole, the colors become more and more grey until, at a Chroma Strength of 1, it becomes almost a pure grey. Shorthand notations are used which first list an abbreviation of the Hue followed by the Value and the Chroma Strength separated by a slash and stated numerically. The scientific principles upon which this system is based are beyond question. Since the inception of the Munsell Color System, hundreds of new colors and pigments have been introduced. Without exception, all of them conform to the system's principles. That is; no color can be higher in Value than white or below the Value of black. Every new color has a Hue name which can be precisely located on the Color Wheel. The variable scale of Chroma Strength can be logically extended to accommodate more brilliant pigments as they become available. As an example, when Professor Munsell designed his system, the Red Hue at Value 5 attained its highest Chroma Strength of 10 (the Munsell notation is R 5/10). How can the Munsell system accommodate the fluorescent pigments which were undreamt of in the beginning of the century? Quite easily. The complete collection of Holbein Designer Gouache has a fluorescent color called 'Opera.' Its Hue is described as a 7RP, meaning a Red with a cool overtone. The Value is described as 5.5. Because of Opera's fluorescent pigment, its Chroma Strength is a whopping 18.5, almost twice that of the original Value 5 Red. Opera's Munsell notation is the rather longish 7RP 5.5/18.5. Earlier, I stated that Professor Munsell achieved a

great deal more than creating a neat system for cataloguing colors. Residing within his system is a well conceived plan for achieving color balance. In comparing the Chroma Strength of Value 5 Red with the Chroma Strength of its visual complement, Value 5 Blue Green, we can see that although the Chroma paths touch at the neutral pole, the Chroma Strength of Red extends to twice that of Blue Green. If we mixed equal parts of Red with Blue Green we won't get a perfectly neutral grey, but one in which the Red predominates very decidedly. It would be like a tug-of-war with ten men on one side, each representing a step of Chroma, and only five on the other side.

Visualize a bar representing the five steps of Chroma for Blue Green and the ten steps of Chroma for Red. If the bar rests upon a fulcrum at the neutral point it obviously will not balance. But if we cut off steps 6, 7, 8, 9 and 10 from the Red side of the bar, it will balance upon the fulcrum, or neutral grey. It is this simplicity which is characteristic of the Munsell System throughout. Of course, as artists, we don't want to be limited to using half-strength reds in order to balance its complement. We must have other means at our disposal for attaining balance. If our purpose was merely to make a neutral grey, we would use a greater amount of the weaker color. If we wish to produce a balanced and harmonious color design, we can employ a larger area of the weaker color. If we do this in the correct proportions, relative to the Chroma Strength of each color, we will attain balance. It's as though we used ten blocks of the weaker Blue Green (BG 5/5) to balance five blocks of Red (R 5/10). For the artist, all of these color theories have a major shortcoming---they do not deal with artist's paints, especially opaque paints. Chevreul's admirable work was created primarily as an aid to the weavers at the Gobelins tapestry works. By laying small dots of color next to each other, like stitches of colored thread, the Pointillists

were able to make full use of his theories. On the other hand, mixing pigments on a palette does not produce the same results. Thus, not all of Chevreul's theories were applicable to the pictorial painter. While it lies at the foundation of modern color theory, Munsell's color system does not easily accommodate itself to making accurate mixtures with artist's colors. Early in the 20th century, attempts were made to locate the complements of various artist's pigments. The Duddon Color Triangle was one of those early attempts. The Duddon Color Triangle was not widely accepted because it was, to be frank...poorly designed. The Modular Color System was another system designed to be used by artists. It was an elegant and useful system designed by Nathaniel Jacobson and introduced in 1975 by Liquitex. It consisted of a set of acrylics formulated to have the highest Chroma Strength according to their particular Value. A set of Reds would range through the Value scale from pale pink down to deep maroon. Aside from Red, the Modular System included various values of Neutral Grey, Yellow, Green, Purple and Blue, all arranged according to their position on the Value scale. It was very easy to use. Sadly, it was not greeted with the success it deserved. Perhaps we artists need poetic sounding color names, like Cadmium Red Light and Light Portrait Pink rather than R5 and R8. Color mixing was made much more understandable in 1989 with the publication of Stephen Quiller's Color Choices. Quiller is an accomplished landscape painter whose work is distinguished by his excellent use of color. He mixes color with his brains--- and a color wheel of his own invention. The Quiller Wheel is created from actual artist's paints, not printer's inks. Thus, Cadmium Orange lies opposite Ultramarine Violet rather than the Munsell notations of a 4 Yellow Red across from a 9 Purple Blue. Although there are variations between manufacturers, the true complements of artist's paints are located on the opposite side of the wheel---no more color shifts resulting in 'mystery mud'.

Quiller's colorwheel is the foundation for an easy-to-understand color course. Landscape painting offers great latitude for demonstrating a variety of spectacular color effects. Landscape offers far greater latitude than that is allowed by the subject matter of most illustrations---people and products. Still, Quiller's sensible approach to color mixing makes this book one of the most useful books the painter or illustrator can own. During Hans Holbein's day, color theory was a moot point. You just couldn't build much of a theory around a palette with only half-a-dozen colors. As more colors became available and the use of color became more than merely tinting monochrome pictures, color became the subject of serious study. But that study was always done by the practitioners---the artists. Rubens certainly didn't need a theorist to tell him that blue was calming, red was enervating and yellow could be cheerful. Over the centuries new colors were slowly added to the palette. But with the discovery of aniline dyes in the 1850's a rainbow of brilliant colors exploded onto the market---colors which found their first use in women's fashions. What followed was a demand for portraits of women wearing those brightly hued dresses. That in turn, created a demand for paint manufacturers to produce the brighter pigments needed to adequately depict those new fashions. It was this bright palette of colors that the Impressionists and the Pre-Raphaelites inherited. Fortunately, techniques for the practical employment of color in pictorial (not abstract) paintings has been passed on to us by numerous illustrators and painters. Howard Pyle, Harvey Dunn, Norman Rockwell, Andrew Loomis and Frank Reilly are a few of the working artists who wrote extensively concerning the effective use of color in painting. Their approach to pictorial painting was based on the observations we all make when observing nature. They believed that, if in looking out a window you saw an area of green situated below a large

expanse of blue, you'd be right in assuming the green represented grass and the blue was that of the sky. If you looked out the same window and saw blue on the bottom and green on top, you might suspect that someone had turned your house upside-down. Despite newer theories, we still hold those truths to be self-evident. The use of color in pictorial paintings derives from equally simple observations of nature. The information resulting from those observations is known to everyone, not only artists. If you drew a picture of a person with one too many fingers, the mistake would be obvious to anyone. Like the odd products of Bauhaus color theories, drawings of six-fingered people just won't convince most humans. Of course there will always be a self-proclaimed elite who can persuade themselves into seeing The Emperor's New Clothes, but the rest of us still remain unconvinced and, like Queen Victoria, not amused. I won't try to persuade you that learning to use color is easy. It's not---but following these suggestions will help keep your paint clean and bright.

First: always keep your brushes clean. Use copious amounts of water or solvent to clean your brushes. Dirty brushes (and dirty water or solvent) will turn the brightest color mousy and dull.

Second: do not allow the colors on your palette to run into each other. Be especially careful that you do not dip into a color with a brush which contains another color.

Third: Keep your eye on the white paint on your palette. If your brush is contaminated, it will show up here first.

Fourth: use your grey card to compare the values of your color mixtures. The grey card helps you to get it right the first time, thus avoiding an overworked picture. Properly chosen values are the key to convincing color.

Fifth: get a color wheel. It will make order out of the chaos. Grumbacher's Color Computer is handy because it helps you to find direct, split and triadic complementary harmonies. It also shows tints (colors mixed with white), tones (colors mixed with grey), and

shades (colors mixed with black). Far and away the artist's most useful color wheel is the Quiller Wheel, of which we spoke earlier. Sixth: your palette is one of your most important tools. 90% of an artist's work is done on the palette; tones and colors are tried out, as well as the thickness or thinness of the paint. The palette must be kept clean and organized because it is where you do your thinking. Your painting can be no better than your palette.

PAINTING WITH COLOR: The Short Course Rather than approach color as though it was some sort of special science, let's approach it with the knowledge we've already developed as artists.* We know that, to be successful, all pictorial paintings must be based upon the structural truths of tone, light and shadow.* Color is not only subject to the same pictorial approach governing tone, light and shadow; but also to the effects of atmosphere and reflected light.

Colors and their Characteristics: In order to use color in a pictorial painting we must be able to carry any color from its lightest value down to complete darkness. Although nature contains far darker darks and lighter lights, Black and White represents the extreme value range of opaque paints. Although any color can be lightened or darkened with white or black, that method seldom produces the most brilliant (highest Chroma Strength) color for any given value.

YELLOW: Although you can get a wonderful richness by using Black to lower the value of Purple, using the same Black to lower the value of Yellow will produce, not a darker yellow but an Olive Green. However, lowering Yellow's value is easy once you understand that many of the earth colors like Yellow Ochre, Raw Sienna and Burnt Umber are just duller, darker yellows. Because it is located near the top of the Value scale, the value of Yellow can only be raised with White.

PURPLE: The various shades of Purple, or Violet are very important in creating the shadow areas of its

complement---Yellow. Don't forget, Alizarin Crimson is a violet, not a red. AlizarinCrimson mixed with Pthalocyanine Blue produces a dark purple. Alizarin Crimson can also be mixed with a small amount of Pthalocyanine Green to produce a cool violet. AlizarinCrimson mixed with a Neutral Grey produces a wide range of very useful violet tones. RED: Red can be very difficult to paint with because so many red pigments have cool overtones which aren't apparent until you try to mix them with other colors. Cadmium Red Medium and Cadmium Red Deep turn almost violet when mixed with White. Until you're really familiar with your colors, use Cadmium Red Light for your bright red. When raising the value of Cadmium Red Light, mix a tiny touch of Orange into your white to keep it from getting cool. You can also use a premixed "Flesh" instead of White to lighten your reds. In order to maintain the character of Cadmium Red Light while lowering its value, mix it with Alizarin Crimson tempered with a bit of Burnt Umber. ORANGE: Cadmium Orange is the most useful orange pigment. It can be darkened with Burnt Sienna and lightened with Flesh or Naples Yellow mixed with White. GREEN: Straight from the tube, Permanent Green Light is the highest chroma green. It's also difficult to use in pictorial painting. Pthalocyanine Green is very dark but stays brilliant when brought up in value with White. BLUE: Pthalocyanine Blue has extraordinary tinting strength. It's very dark as it comes from the tube, but if you need additional depth to your blue shadows, add Burnt Umber. Pthalocyanine Blue (Winsor & Newton calls theirs Winsor Blue) can be lightened with White. Be careful when mixing it with other colors because a little bit of Pthalocyanine Blue goes a long way. WHITE: Before we go any further, let's discuss the different types of white paint and their proper uses. Titanium, or Permanent White should not be mixed with colors unless you want pale, chalky pastels. Titanium White is useful for creating opaque white passages against dark backgrounds. To

lighten a color to a clear and bright tint, it must be mixed with Zinc White. The virtual unavailability of Zinc White in acrylics accounts for much of the chalkiness seen in pictorial acrylic paintings when compared to oil and gouache paintings. Although gouache dries to a matte finish, gouache color tinted with Zinc White show far greater brilliancy and depth than similar tints made with acrylics mixed with Titanium white. BLACK: Just as some white pigments are better mixers, the same can be said for blacks. Ivory Black is the most transparent of the blacks. It darkens colors without overwhelming them.

* Pictures which are built on a few basic values---a light, one or two middle tones, and a dark---seldom go dead.* Large amounts of pure, bright colors won't produce brilliant pictures. A patchwork of colors and values placed against each other, compete for attention and the brilliancy of the whole picture becomes reduced.* One primary plus its neighbors, opposed by its complementary will never go dead. These colors, supported by neutral and semi-neutral colors, plus black and white, will always be brilliant...always.* Mix your colors from as few colors as possible. Every color added to a mixture reduces its brilliancy.* Large areas of color should be toned down with a complement or grey, in order to give other colors a chance. Remember the axiom, "The larger the area, the softer the color needs to be."

Here's an interesting fact:

The size of a picture affects our perception of its color harmony. Bright colors can be quite pleasant when used in a small color sketch, but when we use the same colors in the enlarged version, the colors appear coarse. The reason lies in the limited number of color cones in our retina. Because we have only so many color cones to register the different color vibrations,

oureye tires quickly when scanning large areas of color. Theillustrator whose pictures are photographically reduced forreproduction should understand and exploit this phenomenon.A common cause of dead pictures is too much raw unrelatedcolor rather than not enough. Here are some ways to bring yourpicture back from the dead.* Trying greying all but two colors.* Tie your palette together by mixing a single color into allbut one or two of the other colors.* Create your pictures with simple tone plans consisting of alight tone, one or two middle tones, and a dark tone. Keep itsimple.* Reduce your palette to three or four basic colors fromwhich you'll mix all the rest. This is a lot easier and moreeffective than it sounds.* Don't put bright colors into your shadows.* Put your brightest colors into areas of light, especiallytransitional areas where light meets shadow.* Never use all three primaries in their pure state, in thesame picture. If they are there, that's your source oftrouble. Tone two of the primaries with the third one. Onlyone primary should dominate.* Introducing black, white or grey can help restore thebrilliancy of a picture which is too full of color. You haveto sacrifice color in one place to gain brilliancy elsewhere.* If the picture doesn't respond to any of the above, itmeans that the values are wrong. The overall relationship oflight to shadow has gone wrong. A color cannot be right untilits value is right.I know that much of this goes against what you think comprises goodcolor, but these aren't my rules...these are nature's rules. Stick yourhead out of the window. What do you see? If your studio is in the city,you'll likely see a lot of greys and dull browns. But if your studio isin the country, you'll still be looking at lots of greys and browns. Mostof the permanent things in the landscape; earth, tree trunks and rocksare greyed down colors. Except on golf greens, most grassy areas aregreyed or brownish greens. The bright colors are reserved for rare andfleeting effects; flowers, sunsets, fruits, feathers and the

spectacular colors of autumn. Those bright colors always appear to be at their maximum brilliance because they are surrounded and buffered by neutralized tonalities of themselves. Perhaps there's an important lesson awaiting on your next walk through the fields.

Light and Shadow: Outdoor light comes from the sun, not the sky. That's why sunlit highlights are warm, especially as we approach sunset. The blue of the sky reflects into the shadows causing shadows to appear cooler than the lights. In a studio with a north facing window, the opposite is true. Because there is never any direct warm light from the sun, the blue of the sky reflects its cool light through the window. Because of optical contrast, the shadows appear warm. Your pictures will become lively and lifelike if you remember to create a warm/cool interplay between, and within, your shadows and your lights. Shadows are affected by more than just the warm or cool reflections of the light source, thus we have the axiom, color is relative to all surrounding influences. What this means is, the areas of a warm yellow cube illuminated by a warm light source will get warmer and more intense, while the color on the cool shadow side will become neutralized. If we place the cube on a blue ground, that color will be reflected up into the shadow. Some of the blue would mix with the yellow causing the shadow to look greener than the above example. We call the actual color of an object its "local" color. Yellow is the local color of the cube used in our example. This brings us to yet another axiom, local color should never completely lose its identity in the shadow. All colors are modified by the conditions surrounding them. Warm light shining on a warm color will give it greater brilliancy. The same warm light shining on a cool color will subtract brilliancy.* When struck by light, all colors become a source of reflected light and will reflect themselves into adjacent shadow areas.* All colors in shadow take on the reflected colors of the adjacent

light struck area.* Any two colors become harmonious when one (or both) are mixed with some of the other.* No color can be more intense in shadow than it is in light.* Colors at their greatest intensity should be relegated to the lights and halftones. In shadow, these colors should be greyed or neutralized---or changed by the influence of the adjacent colors.* The most brilliant colors are usually found in the halftones. Although the painter's axiom of, greys make the picture has much to recommend it, too many neutral greys can deaden a picture. Overly neutralized greys can be fixed by "spiking" them with the color they lean toward. Although this technique is particularly effective in the halftones, shadow colors can also be intensified to good effect. However, to avoid a gaudy and unconvincing picture, greater delicacy and taste must be used when spiking shadows. Pre-mixed greys can be very useful to tone down colors without altering their value. If we hold a color, let's say Flame Red, next to our grey card we see that it's between a Value 3 and a Value 4---my tube of Flame Red is a Value 3.5. By mixing increasing amounts of grey with the color, we can lower its intensity without changing its value. If you paint a square with the toned down mixture and place a square of the pure color in the middle, the color will appear to be much more brilliant than if just painted on white. Experiment with varying proportions of grey and red. See how easy it is to create the effect of a glowing red area. If you squint your eyes the differences between the pure color and grey will disappear. Remember, if you photograph this with black and white film, it will look like the entire square has been painted in a Value 3.5 grey. Colors which are direct complements, meaning they appear directly opposite each other on the color wheel, will usually neutralize each other if mixed together. The neutral and semi-neutral tones made by mixing direct complements are called visual greys. One of the best known combinations is Alizarin Crimson

and Viridian. The chart shows three values of a neutral mix at the top. The three values in the middle are semi-neutrals favoring Alizarin Crimson. The three values at the bottom are semi-neutrals favoring Viridian. The same system applies to the other examples. Learning to mix and use visual greys is one of the most useful skills a colorist can develop. I spent more than a year painting with nothing other than mixtures of Ultramarine and Raw Sienna. I never exhausted the possibilities offered by those two colors. Painting with such a limited palette gave me a greater appreciation of color. Again, this is something which must be experienced firsthand. Pick two complementary colors and execute a painting. Although you may use a full range of values, you'll probably not use the full range of color. This exercise is a real eye-opener. I recommend it. Like many of the techniques in this chapter, the following technique was first shown to me by Andrew Loomis in his classic book *Creative Illustration*. Although the illustrations in Loomis' book may appear dated, his solid advice is timeless. In order to give you the flavor of Loomis' approach, I'll quote him directly. "Here is one of the best ways in the world to obtain brilliancy of color: Keep your color most intense on the edges of the lighted areas, where it merges into shadow. This seems to cast an aura of additional color over the whole area. Just taking a local color of the light and rubbing it into a darker color of the shadow (which most of us do, most of the time) produces no brilliancy. It is apt to be just color in the light, then mud, then reduced color in the shadow. This is one of the least known and least practiced truths." It also is one of the best and most useful pieces of advice I've ever received. That wraps up our abbreviated introduction to color theory and basic color principles. I hope that the information in the beginning of this chapter saves you from wasting time with dead-end color theories that just don't work. Don't expect to absorb everything after reading it just one time. Let it sink in for a while.

Experiment by applying these principles to littlecolor sketches. If you run into any trouble, come back to consult the "bullet points" in this chapter or Stephen Quiller's *Color Choices* and Andrew Loomis' *Creative Illustration*. If I were limited to owning just two books about color, these would be the two.



Casanova

