Chapter Five: Color

Photographers working in color, like painters working with pigments, must chose a palette for an image—a selection of colors that compliment or contrast—that create visual effect, to evoke a mood, or to communicate an idea or feeling.

It would appear that the process of learning photography involves understanding how to control the camera, film and paper in order to creatively express ideas and feelings through the resulting images. In actuality, it is the reverse. The learning process is really the camera and film (and now the digital paradigms embedded in sensors and editing programs and reified by luminescent phosphors or liquid crystals) instructing the photography student to make images that are compatible with the limitations of the tools and materials, and concomitantly to learn to reject ideas, or experiences, or observed events that will not translate through the photographic process into effective images. On the simplest level these strictures are technical. For example, You can’t take that picture; there isn’t enough light. The goal then is to seek a format, a photographic process, a set of technical tools, or even a different visual language that will allow the photographer to put forth their ideas as they envision them, rather than trimming or shaping them to suit the limitations of the material at hand. Sometimes, black and white photography, despite its richness and versatility, cannot advance the photographer’s aesthetic agenda. Rather than abandon those ideas, a solution needs to be sought elsewhere. Sometimes that solution may involve the use of color.

As we have seen, images produced by the lens don’t automatically correspond with, or communicate our experience of reality. They are abstractions, a set of two-dimensional patterns that we interpret in ways that may appear similar to the way we experience reality, but in fact are very different from the multiplicity of stimuli that evoked our original response. Similarly, just because the camera is loaded with color film doesn’t mean that the pictures that are taken with it will be color photographs. The challenge facing the photographer who has mastered the language of black and white photography and turns to color, is that color photography is a visual language which, although similar in many ways, is also
significantly different from the language of black and white photography; a whole
new set of grammatical rules have to be learned and mastered if one is to use it
successfully.

One of the important differences between color photography and black and
white photography is that black and white images are *expressive*, where color
images are *descriptive*. For example, in a color photograph of the sky, such
as those created by NOAA, the National Oceanographic and Atmospheric
Administration, the sky is generally rendered a shade of blue that tries to
communicate the color of the original atmospheric conditions.

Alfred Stieglitz, working in black and
white imagery, on the other hand, made no
claim to atmospheric verisimilitude. He saw
clouds and sky as metaphor, and frequently
used filters to alter the tonality to create the dramatic effects he sought. “My cloud photographs are equivalents of my most profound life experiences,” he said. “My basic philosophy of life. All art is an equivalent of the artist’s most profound life experiences.”

Images made with infrared film, such as used by Minor White to photograph Barns and Clouds, push the expressive, dramatic potential of black and white photography to the extreme by shifting the source of the patterning from the visible spectrum of the rainbow to the invisible spectrum of radiant heat energy. As a result, no human, will ever “see” a landscape like the one depicted in White’s image, although they may still feel that it captures some qualitative aspect of their emotional experience of nature.

Despite the inherent chemical structure of color film, or the programing of digital sensors to render colors “accurately,” color can, nonetheless, be very much used in ways that are as expressive as black and white. However, to make color photographs that in their own way are as evocative and expressive as black and white imagery, one must learn a new visual language, and to see the world afresh, not as light and shadow rendered as shades of monochrome black, white and grey, but as a vibrant range of colors that when translated by the lens and film, create patterns of color based on its own unique, visual “grammar.”
In the two images above, both the color and the black and white versions work within the context of their own visual rules. However, they communicate very different feelings about the same subject due to the different ways they utilize light, color and tonality.

In the photograph on the left, reds and greens dominate the palette. The areas of these opposite colors create contrast. If translated into black and white, the recorded tones of light and shadow barely distinguishes the flowers in foreground from the trees in the background, let alone communicate the same vibrant contrast as its color version.
Changes in light intensities shifts color values

Bob Rogers, Tunnel at the End of the Light, Cold Springs, New York, 1999

Bob Rogers, Rug, 2001

In black and white photography, light is rendered as various tones of grey; the same surface will differ in tonal range depending on the amount of light that strikes it. Light in color photography is more complex. Changes in the intensity of light can significantly change the actual perception of color, its chroma, its saturation and/or its hue.
Contrast in color photography

In black and white photography, variations in the intensity of light create various degrees of tonality ranging from black to white. Black and White in color imagery are not tonalities of light and dark in the same sense. Neither are they exactly “colors”. Juxtaposed areas of light and shadow is the basis of black and white imagery. Juxtaposed areas of color is the basis of color imagery. Drama in black and white photography is created through the relationship of tones of black and white and grey—the result of the presence or the absence of light striking the film. In color photography, contrast is based on the relationship between opposite colors: red/green, yellow/purple and orange/blue. In color photography, creating a palette of two opposite colors, or placing them in relationship to each other within the frame creates dramatic effects.

The color wheel shows both colors that are in proximity, as well as those that are opposite. In color photography the greatest dramatic effect resides in the juxtaposition of colors that are as far from each other on the color wheel as possible.
The intensity of, or surface area covered by contrasting colors does not have to be equal or great in order to achieve a dramatic effect, as, for example, the orange fire in Meiselas’ image, or the red roof in Evans’. In both cases, the opposite color to the dominant hue of the image is relatively modest in the actual surface area it covers, but striking in the attention it, nonetheless, commands.

Susan Meiselas, Street fighter, Managua, 1979

Walker Evans, Saint Martin, West Indies, 1974
### COLOR AND B&W IMAGERY COMPARED

<table>
<thead>
<tr>
<th><strong>Color</strong></th>
<th><strong>Black and White</strong></th>
</tr>
</thead>
</table>
| • Tonal range is expected, and film and sensors engineered, to be “realistic”.  
  - Skies are blue  
  - Grass is green  
  - Pumpkins are orange  
| • There is no “correct” tonal value, it depends on what the photographer wishes to express. The sky, for example, can be any tone from white to black depending on  
  - lighting  
  - negative processing and/or printing technique  
  - if a filter was used to make the negative |
| • Changes in light create patterns of varying color, tone, chroma, value, etc.  
| • Light creates patterns of light and shadow.  
| • Areas of color are read as flat surfaces. Color relationships are elements of both lit and shadowed surfaces.  
| • Shadows create a sense of depth and space.  
| • Varying intensity of light creates variation in color hue, saturation and tone.  
| • Varying intensity of light creates variations in shades of grey.  
| • Shadows are tones of color. Reduced light intensity produces a shift in tone.  
| • Shadows are areas of diminished tonal value.  
| • Contrast is created by juxtaposing opposite colors, or areas of color with either stark white or black.  
| • Visual contrast is created by juxtaposing dark and light areas of tone.  

---

The Language of Photography: Chapter 5—Color
Choose a palette

Choosing a palette in photography—a specific and limited range of colors, or a color scheme appropriate for the subject or the feelings one is trying to communicate—is like choosing a palette in painting, except that one doesn’t squeeze colors from a selection of tubes. Rather, one draws from the range of local color in the scene, as well as from a variety of lighting and other technical influences on the color spectrum, i.e., film, paper, computer screens, alternative processes, etc.

The colors of the palette can be bold and brash, or subtle and muted. They can be just a few colors, or a rainbow of colors. The important thing is that they help the image communicate what one is feeling or thinking.

Nan Goldin’s palette is drawn from the acidic colors associated with photographs processed by automated machines once found ubiquitously at drugstores and photo kiosks. With that specific color spectrum she both references the emotional intensity, and belies the claim for casual aesthetics, generally attributed to amateur snapshots.

In the image by Raghubir Singh, there are several excellent applications of the visual language of color.
photography. First, he has selected of a palette of colors characteristic of Indian art: vibrant oranges, yellows and purples. Note, too, how intense the orange color appears emerging from the darkness of the purple background. At the same time, notice the visual impact of the small white area of the hat on the man in the background. And finally, note that the dominant colors of this image, yellow and purple are opposite colors on the color wheel.

The palette can be a broad range of intense colors, or a narrow range of subtle ones, or a range in between. The important thing is that the palette bear some aesthetic relationship to the intention of the photographer to communicate an aspect of their experience or understanding of the world.
However, a palette that consists of colors in close proximity, as opposed to far apart on the color wheel, becomes, for all practical effect, virtually monochromatic, and risks drifting into the tonal ranges of black and white photography, becoming essentially an equivalent to a tinted black and white image. However, the presence of pure white, or pure black, as opposed to a tinted tone (those of a cyanotype, for example), both offsets and highlights the subtle color range within the image, and can be used to both subtle and beautiful effect.
Black and White can be powerful visual components of Color Photographs

White is, technically, the presence of all colors of light. Black is the absence of all colors. Both have a role in color photography, but very different from their use in black and white image making. Their presence in color images serves to contrast with the color, and even in small amounts, will intensify the effect of colors within the image.

Note the red sashes on the soldiers in the background of Meisela’s photograph, which like the red fan in Whistler’s portrait, leap dramatically to the eye, despite representing a most minimal presence in the overall image.

In Girl with Blue Headband, the black of the jacket adds to the visual contrast of the blue headband, the white highlight at the wrist, and the red of the couch.
Color Photography and the History of Painting

Painters have understood the principles of color image making for centuries, and have applied them over a wide range of styles, media and cultures. Although color photography is very different than painting, it is grounded in the same principles and lies squarely within traditions of the history of art. Historical art works can be some of the best sources for understanding the potential applications of color in photography.

Vincent van Gogh, Sunflowers, 1887

James Abbot McNeill Whistler, Arrangement in Light Pink and Black: Portrait of Theodore Duret, 1883-84

Katsushika, Hokusai, The great waves off shore of Kanagawa 1826 - 1833,
Unidentified Artist (China), Buddha Amitabha Descending from His Pure Land, 13th century

Michelangelo, The Persian Sybil, Sistine Ceiling, 1511

Henri Matisse, Small Odalisque in Purple Robe, 1937

Mir ‘Ali, (d. 1556), Detail, Lawa’ih (Effulgences of Light)

Akira Kurosawa, still from the film, Ran, 1985
Sarah Moon, Pirelli Calendar, 1972

Stephen Shore, Michael and Sandy Marsh, Amarillo, Texas, September 27, 1974

William Eggleston, From Faulkner’s Mississippi, 1990