Becoming a Photographer

The Study and Replication of the Photography Style of Ansel Adams

An Honors Thesis (HONRS 499)

by

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Abstract

This study of the works of Ansel Adams is divided into two areas. The majority of this exploration comprises fifteen black-and-white images of my own creation. Taken using Ilford HP5 400 and Ilford FP125 type films, these images are designed to be similar in style and mood to the landscape photography Adams is famous for. The negatives were hand developed and then scanned into Adobe Photoshop 5.5 for final adjustments. The second half of this endeavor is a paper encompassing the methods used by Ansel Adams and interpreted by me. The paper and images work together to create an understanding and an appreciation of the beauty of Adams’ work.
"One morning shortly after our arrival at Yosemite, my parents presented me with my first camera, a Kodak box brownie. After a few minutes of simple instructions, my camera and I went off to explore."

- Ansel Adams, age 14

No words can describe the phenomenon that is Ansel Adams better than his own. Adams' curiosity and creativity sent him into the wilderness to capture life as an art form. Born in 1902, Adams was an active photographer, pianist, environmentalist, and friend up until his death in 1984. The impact he left on the world of landscape photography will be felt for years to come.

Adams' techniques were influenced by the "straight" photographers of the 1920's, such as Edward Weston and Alfred Steiglitz. He typically used a large format 8"x10" camera and small apertures to retain sharp focus and a greater depth of field (Marshall). His images reflect the considerable emphasis Adams placed on the form and texture of his work. The resulting style, which Ansel Adams became known for, is one of precise focus, a wide range of tones, and sharp contrast showing definition, detail, and texture. In fact, in the 1930's, along with Imogen Cunningham, Weston, and other photographers working in this style, Adams founded an informal group known as "f/64," named for the smallest aperture available on large format cameras.

Adams' work was created using two different methods. On one hand, Adams was a strictly technical photographer. On the other, his landscape images romanticized the beauty and
grandeur of nature. Stressing that photography is art, Ansel Adams portrayed each scene with a
delicate balance that conveyed a sense of beauty and of mood, rather than shooting classic
"straight" images (Marshall).

The technical side of Adams' work is a large part of his enduring legacy. He
concentrated much of his study of photography on exposure and development. Though both of
these topics are scientifically and mathematically exact, Adams developed a method that, though
detailed and, at times, complicated, is relatively simple to employ.

The fundamental principle behind Ansel Adams' Zone System is pairing the visualization
of the subject with the appropriate exposure and development. The goal of the Zone System is to
produce a negative that has a wide range of tonal values. The shadows have detail, while at the
same time the negative also has midtones and highlights that fall in the appropriate range. In all,
the Zone System is a precise way of measuring and controlling the look of the desired print.

The first step in using the Zone System is to previsualize the final print. The ultimate
goal of previsualization is to be able to anticipate an image, with trained intuition, at will (White,
13). The ability to look at a scene with your eyes and, at the same time, imagine the way you
want it to look takes great practice. It is an effort that is fundamental to the creativity of
photography.

This effort of imagination and seeing with the mind's eye is a learnable power. For
instance, anyone can look at a house and imagine it in the color of their choice. Previsualization
is much the same thing. In the black-and-white photography of Ansel Adams, imagining the
tonal range of the final print is part of the same creative aspect that allows a person to picture a
house in a different color.
The perfect Zone System negative begins with previsualization and is created by placing the subject in certain "zones" on a gray scale. A zone is a visual unit of measurement that is altered by adjusting the aperture one f/stop at a time (White, 15). This is to say that in two prints of the same subject, the second having been taken at one f/stop higher, therein opening the aperture one stop and receiving twice as much light as the first print, the difference in the values seen in identical areas of the two prints is one zone.

The term "value" refers to the lightness and darkness of a color (White, 17). In black-and-white photography, the values range on a gray scale from total black to pure white. The Zone System assigns different values of the gray scale into separate zones ranging from 0 to IX. This scale, as defined by John P. Schaefer in The Ansel Adams Guide: Basic Techniques of Photography, Book 2, is as follows:

<table>
<thead>
<tr>
<th>Zone</th>
<th>Representing:</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>Total black in print</td>
</tr>
<tr>
<td>I</td>
<td>First step of value above black; first visible density</td>
</tr>
<tr>
<td>II</td>
<td>Print value and negative density sufficient to reveal some texture</td>
</tr>
<tr>
<td>III</td>
<td>Low shadow values with textural content</td>
</tr>
<tr>
<td>IV</td>
<td>Normal shadow value on [Caucasian] skin, dark foliage in sun, etc.</td>
</tr>
<tr>
<td>V</td>
<td>Middle gray; 18% reflectance on a gray card</td>
</tr>
<tr>
<td>VI</td>
<td>Average [Caucasian] skin value (in sunlight, diffuse skylight, or artificial light). This represents about 36% reflectance of light</td>
</tr>
<tr>
<td>VII</td>
<td>Light skin values; light gray objects</td>
</tr>
<tr>
<td>VIII</td>
<td>Highest values in which some texture is discernable</td>
</tr>
<tr>
<td>IX</td>
<td>Approaching pure white (Zone IX or higher represents little or no density of the print image)</td>
</tr>
</tbody>
</table>
Using the Zone System involves combining previsualization with a knowledge of values, exposures, and the zones of the gray scale. Knowing light meters measure luminance to middle gray, Zone V, the photographer can then place the subject in any zone he wishes. For example, imagine you have previsualized an area of the subject to be in the shadows of Zone III. The light meter will automatically give the correct aperture, perhaps f/11, needed to place the area in Zone V. However, in order to achieve the darker values of a shadow, rather than middle gray, the subject must be “stopped down” to Zone III. This can be achieved by lowering the aperture two stops, one for each zone. Thus, changing the aperture from f/11 to f/22 will allow less light to reach the negative resulting in an image with values two zones darker than originally measured.

The difficulty of the Zone System is twofold. First of all, one has to develop the ability to preconceive the image one desires. This involves training the mind to disregard what the eye sees and, instead, give leave unto the imagination to create. The inventive half of the Zone System is countered by the logical. In order to achieve the desired image, the photographer must have significant knowledge of not only negative exposures and shutter speeds, but also of developing times for both the negative and the print. This technical side of photography requires as much training as the abstract side, if not more. Its difficulty is such that special courses are taught in the Zone System for those that wish to learn. It is not something that can be mastered in a weekend. The skills needed in the Zone System can only be acquired through determination and practice, through trial and error.

Because of the level of difficulty in learning the Zone System, I chose to focus my usage on previsualization. The technical skills needed to successfully use the Zone System are still beyond my reach. By concentrating on visualizing the images, I was able to give more attention
to the moods of my prints and to the techniques that would best serve to achieve them.

Technically, I used minor aperture adjustments to "stop" my negatives in the desired
direction away from the Zone V reading given by my camera's light meter. This, coupled with
the use of a Y2 yellow filter and a polarizing filter, helped me to achieve desired value ranges of
my negatives.

Adams also spent part of his lifetime testing equipment for companies such as Polaroid
Land (Marshall). His dedication to the development and evolution of photography as both an art
form and as a science was an inspiration to me. This is why I employed the use of his scientific
Zone System in creating artistic negatives. It is also why I chose to develop my prints using the
computer program Adobe Photoshop 5.5. Using Photoshop I made minor adjustments to my
images similar to those I would have made in a darkroom. In both environments I would have
made judgements regarding contrast, brightness, and luminance. Photoshop provided me greater
control technically, while at the same time it stretched my creative imagination. Had Ansel
Adams survived into the digital age, I have no doubt that he would have encouraged my enlisting
the use of Photoshop as well as to experiment with it himself.

One of the goals of this project was to achieve a greater appreciation of the hard work
needed to produce aesthetically pleasing photographs. Before I began, I had a limited knowledge
of the technical side of photography. Part of this project was developing these skills and learning
about photography's scientific aspect. Though I had distinct limits on my technical self, my
creative self began the project with an already deep love of nature and great admiration and
appreciation of photography as an art form. I used this appreciation as encouragement to delve
further into creativity of Adams' work, as well as to stretch my imagination in the creativity of
my own. As a result of dedicating myself to my photography, I have developed not only an appreciation of the distinct elements of both the technical and the artistic sides of photography, but also a respect for the hard work necessary to create the best work possible and a desire to continue to study further into the exploration of the photographic world.
Works Consulted


Cover Art: "*Mount Williamson, Sierra Nevada"* - Ansel Adams
Acknowledgments

To begin, I must first thank Paige Clary for selflessly giving up her spring break to accompany me on the exhausting statewide road trip during which these photographs were taken. Her tolerance, understanding and sense of humor have been invaluable to me.

I must also thank Hans P. Kellogg for his endless advice during the development process. While his knowledge of photography and of Photoshop helped procure my final images, it was his kindness, support and willingness to lend a hand when the computer decided it hated me that helped me to complete this project to the best of my abilities.

Finally, many thanks are due to my thesis advisor, Tony Gothard. His patience and enduring ability to humor me each time I changed my mind can never be repaid. His own appreciation of photography encouraged me to challenge myself and his superior technical advice pushed my photography to a whole new level. For all of this and more, Tony, I thank you.
The Knobstone Trail, in southern Indiana, is a rough footpath that stretches for nearly sixty miles. This particular image was taken just above where the trail drops sharply down to meet the road.

In the bright sunlight of midmorning, an f/stop of f/5.6 with a shutter speed of 1/250 of a second was sufficient enough to capture the day's crispness. I paid close attention to the shadow areas of the foreground tree so as not to lose detail. This was difficult because the sun was, at that point, behind the tree giving its face dark shadows.

Shot at an ISO of 50, half what is typical for the 100 speed film I was using, I developed the film with twice as much water to give extra contrast to the leaves on the forest floor. This was again adjusted in Adobe Photoshop.
While driving through the countryside of Indiana, I was taken with a sudden shift in the clouds. The day had quickly become overcast but beams of sunlight were still peaking through the clouds, giving the air a hazy, expectant feel.

The key to this photo was a Y2 yellow filter. This darkened the sky and fields, emphasizing the sunlight peaking through. The negative was also developed from a roll of film brought down from ISO 100 to ISO 50 for added contrast. Photoshop was used to increase the level of high tones (whites) being outputted to make the sunlight stand out against the clouds.
Previsualization played a role with the development of this print. When I happened upon this point in the trail, I saw the angle at which the sun was hitting the trees. I envisioned the shadow of a solitary tree falling across the trail. I waited for the sun to set to the perfect angle and took the shot. An aperture of f/8 helped retain much of the focus of this scene.
This clearing on the trail gave way to a stunning spring sky. To take advantage of this I knelt down and aimed up. I visualized a sky that would seem to be overpowering the rocks below. A yellow filter helped to achieve this effect by darkening the sky to give it more depth and impact.

A sharpening filter was used in Photoshop to make up for the softer focus of the original. The levels of the print were also adjusted to increase the highlights to Zone VIII.
Runoff from Gully - Indiana Dunes State Park; March 6, 2001

Taken on a cold and miserable day, it was difficult to previsualize anything for this print, as an amateur photographer I am still distracted by wind whipping snow and sand at me. However, using a shutter speed of 1/2000 of a second I was able to achieve the desired effect. I wanted to stop as much of the motion of the waves as possible while still giving the the impression they were moving.

Ansel Adams was certain of his feelings toward stopping the motion of water, “Moving water ‘frozen’ by very high shutter speeds assumes the appearance of glass and is completely static” (Adams, 52). However, I chose to use a high shutter speed, knowing that because of the impending storm, I would not be able to “freeze” the water’s motion.
Despite the inclement weather, I was impressed by the smoothness of the rocks along Lake Michigan. I tried to capture this by shooting this picture from a low angle. The rocks became the subject, instead of the water. The resulting photograph had a solid range of contrast, from Zone II in the shadows of the rocks, to Zone VII in the crests of the waves, and needed little adjusting in Photoshop.
When I came across this lone tree in a roadside field, I couldn’t pass up the opportunity for such a quintessential country photograph. Though I used a yellow filter to enhance contrast in the sky, the most significant part of taking this photograph was using the Zone system. After metering the light in the shadows to Zone V, middle gray, I then chose an aperture of f/9.5, two stops down from what was metered. This placed the shadows of the area into Zone III, a Zone dark enough for shadow but still having detail.
Before undertaking this project, I had not realized how difficult it is to shoot in a forest. Though I was surrounded by their breathtaking beauty, I couldn't help but feel that the trees were “in my shot.” However, I am particularly fond of this print. Trying to achieve the same clarity and sharp focus Adams had in his work, I set my aperture to f/22. This gave a greater depth of field and as a result much of the print is in focus. This was further enhanced by a slight increase in contrast using Photoshop.
Although this part of the Knobstone Trail had a large view of the sky, I chose not to use the yellow filter. I felt the shadows in the print I had envisioned would be too dark for the effects of the filter. Instead, I chose to use the Zone system and brought the aperture down two stops to f/6.7 to bring the shadows of the scene to Zone III. Using this method, the final image had a considerable range of contrast needed very little adjustment in creating the print.
Although I am pleased with the final outcome of this negative, the development of the print needed significant adjustment in Photoshop.

The clear, blue midday sky yielded the perfect backdrop for the single cloud. However, going against my instincts, I chose not to use a filter to enhance the contrast between the two. The result was an image that, though the negative seemed to have a good range of contrast, the print appeared in the mainly gray shades of the middle Zones.

To counter this in the development process, Photoshop was used to enhance the higher Zones by making significant adjustments in the image’s levels giving a boost to both the high and low values.
I spent a considerable amount of time framing this shot. First of all, I wanted to convey the openness of the trail, that while it was surrounded by trees, the trail itself was wide and clear and gave way to extensive amounts of sunlight. Second, I wanted the edge of the trail to be clear. In reality the trail dropped sharply off to the right over the cliff’s edge and I envisioned the final print as preserving some sense of the edge. Lastly, and most important, I felt that if I waited until the right moment, I would catch the sun casting subtle shadows on the roots in the trail.

By previsualizing this image before I exposed the film, I felt I was able to capture the image I set out for.
Rockside - Clifty Falls State Park, Madison, Indiana; March 9, 2001

This trailside clearing proposed a wonderful opportunity to photograph different textures. While much of Ansel Adams' work with textures was with close-up images, this scene enabled me to show the different types of texture across an entire scene, instead of focusing on one particular area.

By using a yellow filter with an f/stop of f/8 and a shutter speed of 1/125 of a second, the final image had a wide range of contrast and needed little adjustment in development. This also gave significant definition to the details in the leaves and in the rocks, staying with my preconceived image.
The image which resulted from this negative surprised me. Because of park regulations, I was unable to get close to the waterfalls. Instead, I relied on a telephoto lens to zoom in on the falls. In doing this, I was sacrificing the wide expanse of sky above. However, in the final image, the sky still has a sweeping presence. This is helped, in part by a Y2 yellow filter, by the sharp contrast in the sky.

In Photoshop the characteristic curve was adjusted to help retain contrast in the shadows. The level of black being outputted was brought down from 100% to 95% in the shadows to assure detail.
Cake Rock - Clifty Falls State Park, Madison, Indiana; March 9, 2001

This is, without a doubt, my favorite image in the series. I also feel that it represents the sharp focus seen in Ansel Adams’ work.

I achieved that focus and clarity in three steps. After previsualizing how I wanted this image to look, from its sharpness to its overpowering mass, I first used a yellow filter to increase contrast in the side of the rock. I then stopped the camera’s aperture down two stops, to f/8, to place the shadows in Zone III. Finally, to make up for the lower aperture, that would not give me as great a depth of field as I wanted, I stood as close to the subject as I could. This also forced me to shoot from a lower angle, giving Cake Rock a massive stature.

To continue to bring out the image I had conceived, I used a sharpening filter in Photoshop to enhance the distinctness of the final image.
I found this spot along the creek by crawling along the ground and across a fence or two that I suppose were there to keep people such as myself out. But, in this scene I saw an opportunity for composition. The bend in the creek happened at just the right point and, to my luck, coincided with a tiny waterfall in the creek.

To capture this moment I set my camera at f/9.5 with a shutter speed of 1/150 of a second. However, in hindsight, I would have set lower aperture. Though I was concerned with achieving detail in the shadows, I feel I lower aperture would have yielded a greater depth of field and might have kept the sky from becoming too exposed.