## DOCUMENTING COURSE IMPROVEMENT PROJECTS THROUGH PHOTOGRAPHY Brandon Horvath Department of Botany and Plant Pathology Michigan State University

The annual members meeting has arrived and the golf course architect will be present. The greens committee has asked you to review for the membership the projects you have undertaken in the past year, and to look at the future plans for the course. The only catch in your mind is that you are the second speaker on the agenda – *after* the architect. You think to yourself, "I hate going up there after the architect. He always has those great pictures of the course and his projects taken by a professional photographer, and all I have are these silly prints that I have to make into slides somewhere". What can you do? With an understanding of how a camera operates, how to compose an effective photograph, what media (film or digital) to choose for your subject, and some fun practice, you will soon be able to capture pleasing images that illustrate your projects effectively.

#### So how does a camera work?

Basically, a camera is a light-tight box within which a piece of light sensitive material (i.e. film) records an image. In fact, a pinhole camera is just that, a small light-tight box that has a very small hole poking in it that allows the film to record the image. More advanced cameras incorporate some sort of lens (that has an aperture) and a shutter that allows the light to be manipulated as it enters the film chamber. No matter how complex a camera it is, these are the basic elements of a camera regardless of complexity.

An important point to keep in mind is that you can take excellent pictures with most cameras available (this unfortunately doesn't apply to digital cameras). The problem is that you must understand the capabilities of the camera that you are using. There are essentially two basic types of cameras that we will examine. The first is the viewfinder type and this camera is characterized by having a viewfinder window through which you compose a shot. The viewfinder type is often used for compact 35mm cameras. The advantages of such a camera are its small size and light weight. The primary disadvantage is that because the viewfinder is separate from the lens/shutter system, you don't see exactly what the lens and film see. This is most often a problem when shooting close-ups where there is only a few feet between the camera and subject. The second type of camera is the single lens reflex (SLR). This camera is often bigger and heavier than a viewfinder, but the main advantage is that through a mirror and prism the user sees a WYSIWYG (what you see is what you get) view through the lens.

Using an SLR also enables you to control how the image appears on film by adjusting the exposure of the film (although more sophisticated viewfinders may also have these controls). Exposure of an image onto film is the crux of photography – a well-exposed image communicates your message, and a poorly exposed image results in turning off your audience. Proper exposure is determined by three basic elements that the photographer can control:

- Aperture governs how much of the image area is in focus.
- Shutter Speed governs how fast we can stop action of a moving object.
- Film (speed) governs the set of aperture and shutter speed combinations that can be used effectively.

Through practice and experimentation, anyone can use these three elements to govern how they capture an image on film.

# How do I effectively compose a photograph?

The composition of a photograph is how the elements of the image are arranged on the film. How you arrange the subjects in your picture can make the difference between an image that is alive and dynamic from one that is static and lifeless. The first important item to consider is where to place the subject in the frame. There are four main points in a photograph that convey action and movement. These four points are found at the intersection of 4 lines that divide the frame into thirds (Figure 1). When a subject is placed at one of these four intersections, it takes on a special significance. Examples of this technique in use include composing landscapes so that the horizon line falls on the upper or lower third of the image. If this line is in the center of the image then the photo takes on a dull, static feeling that often fails to convey the splendor of the image we are observing. This composition technique is often referred to as the "Rule of Thirds".

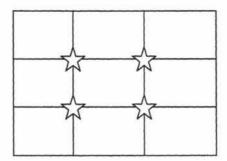


FIGURE 1. 35 mm frame showing "Rule of Thirds".

Another compositional technique is the use of diagonal lines (Figure 2). Horizontal and vertical lines often convey a static feeling as the viewer visually roams over the page. This is because these lines stop the eyes from moving across an image. Therefore, arranging the subject(s) of your images in a diagonal direction will often convey dynamism and action to the photograph. Examples of using diagonals to convey action include showing a road fading into the distance along a diagonal, or a feather lying diagonally on the ground rather than vertically or horizontally. Other commonly cited rules of composition include positioning human and animal subjects so that they are looking into the frame rather than outside it, and finding subjects in the environments you wish to portray them in. This last rule often is important when documenting some of your projects when there are lots of distracting elements (shovels, extra people, piles of soil, etc.) that do little to help illustrate the subject of the photograph. The solution to this problem is to take a few extra moments to think about what you are trying to illustrate and eliminate anything from the image that doesn't help tell about the subject.

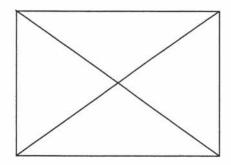


FIGURE 2. 35 mm frame showing diagonal composition lines.

Once you become more familiar with composing photographs using these rules, don't be afraid to experiment with breaking these rules! Often photographers get sucked into the idea that every image <u>must</u> fit within these compositional rules. However, these "rules" are merely guidelines that can assist you in conveying your message effectively. Breaking the rules often can lead to a better composition for a particular subject, so don't be afraid to shoot lots of different compositions and select the best ones later. Remember that film is cheap compared to not conveying your message effectively because of a poorly composed photograph.

#### So what film should I use? OR should I shoot digital?

Choosing a film is probably the most underrated part of taking effective and powerful images. If you have taken the time to learn how to operate your camera, and effectively compose your images, then you should also go to the trouble of knowing how the film you have chosen will react to the light. This is analogous to making sure your sprayer is calibrated, but not worrying that you have put a fungicide in the tank to control your weed problems. In general, you should also select a film based on what you want to do with it after it has been processed. Do you want it for a presentation? Do you want to make photos to hang in the office? Answering these questions will often help you select whether you should shoot slide or print film. The main advantage of shooting slide film is that it can be made into a picture through the newer digital printing processes, and so it can be used for any of the uses mentioned above. Also, the processor does not adjust slide film so the choices you make are reflected on the slide, both good <u>and</u> bad. Making mistakes will help you improve your photography, and slide film is much easier to see what your mistakes were. Slide film is often named with –chrome as an ending (i.e., Ektachrome or Fujichrome), whereas print (or negative) film is named with a –color ending (i.e., Kodacolor or Fujicolor).

Now that you see that slide film is a better choice for most shooting needs, two more important decisions must be made: 1) what speed? 2) consumer or professional film? The film speed dictates how fast a shutter speed one could shoot at for a certain set of light conditions. It also determines how grainy the resulting image will appear. Generally, it is better to select a slower more fine-grained film and use a tripod when necessary than to select a fast grainy film. If you have been wondering how those pictures the golf course architect uses look so good, a big part of the reason is that they are on professional grade film that is very slow (and therefore very fine-grained). Selecting films can be difficult at first, but I have included in the reference section a few websites that will help make finding and purchasing quality film easier. Finally, don't be afraid to try several different films from several manufacturers to find a film you feel helps convey the subjects you shoot most often.

So what about digital? Well, there is no doubt that for taking fast shots on the run that digital does have some advantages. However, there are also some distinct disadvantages as well. Among these are that at the present time, the best digital camera can capture about 3.3 megapixels which is less than 25% of the information contained in a 35mm slide! So, shooting digital images is great until you have to follow the architect at the members meeting and he comes armed with the big format professional images, and you are stuck with your digital shots. Does this mean you shouldn't use digital technology? Not at all – in fact, using digital technology to make prints of your slides is one of the best uses of the digital revolution yet. Also, when you develop your film, you can request a PhotoCD along with your slides. This gives you the best of both worlds; the ability to shoot high quality images for use in important presentations, and a digital file that can be used to make prints using the latest digital printing technologies available at your photo processor.

Keeping in mind these three concepts will help you to document your course projects more effectively. Remember that like any other skill, photography is something that can be learned, but you must be willing to practice your skills by making lots of mistakes. Only through those mistakes will you find yourself improving your ability to document and convey your important job as a superintendent through photography. The three concepts covered here only scratch the surface, and I hope that you will explore the resources listed below to learn more about taking effective photographs!

# Resources

Below you will find resources that will help you find equipment, and information to make your photography better:

#### Books

- Understanding Exposure by Bryan Peterson
- Learning to See Creatively by Bryan Peterson
- The Nature Photographer's Complete Guide to Professional Field Techniques by John Shaw
- Closeups in Nature by John Shaw

#### Websites for equipment, film, etc.

- www.calumetphoto.com
- www.bhphotovideo.com
- www.robertsimaging.com
- <u>www.nikonusa.com</u>

## Workshops Info

- www.nikonschool.com
- www.shawguides.com