Photography: 102

Defining the Acceptability Standard for Evidence Photos by Sandy Weiss

Vision, Photography, and Perspective

Photography is, "a mechanical process of collecting data for visual purposes".

The inadequacies of an under-trained investigator/photographer may limit the accuracy of evidence documentation and can be compounded by the inherent limitations of the photographic medium. The properly trained photographer stands a better chance of creating images more representative of reality, in a way less prone to be challenged, and if challenged, is more likely to be able to properly explain the process and the differences.

In, Scientific Evidence In Criminal Cases , the author states, "Photography is the one type of evidence that is best understood by all people, including police officers, lawyers, and judges." "Photography's capacity for documenting evidence and its potential in actually uncovering some types of evidence make it an indispensable tool for any detective. Some investigators leave evidence undocumented or impossible to analyze, but it is common knowledge that as to such matters, either through want of skill on the part of the artist (investigator), or inadequate instruments or materials, or through intentional and skillful manipulation, a photograph may not only be inaccurate but dangerously misleading."

Accuracy being the key word, this paper will start with a short description of the process of human vision, compare vision to photography and explain which shortcomings of photography proper training, thought, and execution should be able to minimize.

Vision/Perception

Vision is one of the tools the human brain uses to experience the world around it. Light rays entering the eye(s) are focused on the surfaces of the retinas and the image information (optical stimuli) is transmitted to the appropriate parts of the brain by means of nerves. The brain processes the information and the person sees what the brain perceives as an appropriate image.

It is pertinent that psychologists think what happens to the optical stimuli in the brain has less to do with the visual information and more to do with the prior experience (s) of the person. The visual event is undoubtedly comprised of a number of activities of the brain including its immediate analysis of the current image, all other sensory input, and conscious and sub-conscious lessons learned in the past under similar circumstances. The entire process is more or less instantaneous, depending upon the physical condition of the viewer, the number of stimuli, and the amount of stress in the particular situation.

Other factors affecting the mind of the viewer and influencing their particular visual imaging capabilities may include the weight of other tasks/obligations, environmental factors, and possibly emotional reactions to the visual information.

A trained and experienced investigator, who may not necessarily be as accomplished in photography as the trained and experienced photographer, may possess a broader-based level of experience in investigations. For this reason, the investigator may have a better idea of WHAT is pertinent to document in a particular situation while possibly lacking some competence in HOW to do it. It is hoped that with sufficient experience the skill-level of the photographer inside the investigator will be sufficient to enhance and not detract from the essence of the investigation.

Vision and Evidence Photography

One factor that allows us to accept images (photographs, films, television, etc) as reasonable facsimiles of reality in general, is that we often see in the images, what we expect to see. The mind applies, to the extent of which it is capable, what it sees to a standard and analyzes whether the sight fits into a past pattern or experience. Each person has his or her own experience-database to use to form his or her personal standard. In this way, the more experienced the observer, the more accurate their mental analysis of a scene.

"Photographic identification requires that the pattern in the

(Continued on page 7)

(Continued from page 6)

picture be relatable visually to the image the observer has formed of it, or is expected to form of it, in his mind." "Today's television and movies have made Americans a truly visually oriented people. Regardless of language differences or degree of literacy, most persons can understand a picture or drawing; therefore visuals can be regarded as a "universal language.""

So, what does this have to do with the plight of the evidence photographer? The main problem is that when people see photographs, they expect the images to be true and accurate representations. When they expect the truth, the image(s) become the truth, whether they are or not. The challenge is to make photographs the most truthful they can be, and that is not a simple task. (Insert photo 1 here. Caption: Is the bucket in front of or behind the tractor?)

There are many elements of the human visual process, difficult or impossible to duplicate photographically and thus impediments to reality in photographic reproduction. Of these elements, proper perspective, dimensionality, contrast, and color reproduction are some of the most prevalent. This and the next several articles will discuss means to address these problems.

A basic example of one of the differences between vision and photography is the instantaneous sensitivity of the human eye versus the cumulative sensitivity of the photographic light receptor. In other words, the photograph can show less than, similar to, or more than the detail the eye(s) may have seen in the same circumstances depending upon the lighting and the variables of exposure. It is a simple process to represent a night scene, for example, as if it were broad daylight with a simple camera and long exposure. Obviously, that is not something the unaided human eye can do, nor is it an accurate representation of any possible reality. (Insert photo 2 here) (Caption: This photograph of a railway tank car was taken at a 1 second exposure and an aperture of f1.2 on ASA 1600 film, to illustrate the contrast difference between the blackness of the car and the blackness of the sky after dusk.)

The trained photographer will be familiar with the subject of human vision and know how to properly document the evidence to optimize the relationship between how the evidence looks to the photographer and how it will eventually look on the photograph. The next installment in this series will explain the ways a photographer may optimize the effects of perspective on evidence photographs.

Photo #1

Photo #2

Sandy Weiss is Coordinator of Corporate Communications at Packer Engineering in Naperville, IL.; an EPIC Board Certified Forensic Evidence Photographer and 2005 recipient of the Nikon Evidence Photographer of the Year Award. E-mail comments to slw@packereng.com.

References: 1) Changing Photography, Photographic Vision and the Digital Revolution, School of Photography and Film, Göteborg University, Göteborg, Sweden, page 9 (http://www.ckk.chalmers.se/ckk/pdf/ChaPhotogr.pdf); 2) Moenssens and Inbau, Scientific Evidence In Criminal Cases, The Foundation Press, Inc., New York, 1986, p. 601; 3) Cunningham vs. Fair Haven & Westville R. Co. (1899) 72 Conn. 244 at 250, 43 A. 1047 at 1049; 4) The Focal Encyclopedia of Photography, Psychology of Vision, p. 934, 1957 Cantor, Benjamin J., Photographic Evidence: Establishing Just Verdicts In the Courtroom, ww.expertpages.com/news/photographic_evidence.htm

REQUEST FOR 600–word ARTICLE'S

Running a PI Business, Ethics, Interviewing Skills, Background Checks, Criminal Defense, Civil Litigation Equipment/Technical Corner, Client Management Marketing & Advertising, Skip tracer's Toolbox