

This article is a quick-start selection of information for beginning and more advanced evidence photographers who want to learn quickly how to

Take Better Evidence Photographs

Consider:

1. Your digital or analog camera is in hand.
2. It has an empty and appropriately sized image storage card or new roll of the proper film in place.
3. The camera and lens are clean, dust free, and un-smudged, inside and out.
4. Batteries are at maximum power.
5. An appropriate documentation situation is presented.

What more can a photographer do, to prepare for the successful capture, storage, and transportation of appropriate images for evidence documentation?

The next recommended step is to **stop and think**, if only for a moment, about the particular project at hand, and any similarity this project may have to previous evidence documentation experiences. Before the commencement of photography, mentally compare the current/planned documentation with the past experience. Follow the same (if the first was successful) mental roadmap to the current documentation as was performed on its predecessor. The more automatic the movements on the part of the photographer, the more capacity the photographer will have for other means of data collection.

Always follow any appropriate and established documentation protocol, both physically and mentally.

In every case:

1. There must be a reason for the documentation
2. There must be a plan for the steps of the documentation
3. There must be a vision of the ultimate end product and eventual use of the images.

The preceding quantifiers, properly used, should promote sound photographic decisions about:

1. The choice of the right images to expose
2. The use of the right film speed/digital camera resolution/compression format, lenses, etc
3. The elimination of the practice of exposing photographs for the sake of exposing photographs, shooting just to shoot.

Realistically, learning to make good and properly inclusive photographs in evidence situations/ environments takes time, and for some people even a lifetime. The point is that photography taken seriously is like any other discipline. Creating outstanding work requires a focused, persistent effort, the right equipment, and the right mentality.

Follow these 10 basic steps to promote photographic quality:

1) Proper use of lighting

If a photographer is exposing photographs outdoors, there are good times and not-as-good times, for the existing lighting to achieve the desired effect. In evidence work there are two additional qualifiers of timing. First is the specific time the photographer is with the evidence by necessity. Second is when the photographer chooses to be with the evidence in order to characterize the situation as it was at a specific time in the past.



In either case, the ambient lighting should be used to greatest advantage by exposing the photographs with the sun or other lighting at the best angle to illuminate the subject. Proper light metering procedure must always be performed. Camera automation should be used only for situations that would not be confusing to the camera's internal metering systems.

If the photographer is utilizing auxiliary lighting of any type, exposure must be adjusted to take proper advantage of the additional lighting.

If the scene is the subject of a vision study, the appropriate lighting to match the situation at a specific time in the past must be used. If the photography is performed in low light with no supplementary lighting added,

1. A tripod must be used to hold the camera steady during exposure.
2. Proper metering must be performed in order to expose the film for the desired effect.
3. If the metering is to be quantified and/or compared to human vision, luminance or illuminance metering must be performed. Never compare camera f-stops to human vision.

2) **Determination of appropriate composition**

Good composition is desired and even mandated in aesthetic photography. In evidence photography, composition is a distant second to content. If the photographs produced do not portray a reasonable representation of the evidence, they are useless. Making evidence compositions pleasing to the eye is unnecessary.

3) **Expose images from an appropriate Point-of-View**

Taking photographs with the camera at eye-level (five to six feet above ground) is common and, that vantage point illustrates the way most people are accustomed to seeing the world. However, photographs taken from either a higher or lower

vantage point will show aspects of a subject invisible from normal standing height.

In scene photography it is necessary to expose some photographs from the angle and height of any eyewitnesses. It is also necessary to correlate the position of the scene to the position from which any eyewitness images may be captured.



4) **Maximize depth-of-field**

Use the smallest appropriate lens aperture (highest number) when exposing each image to maximize depth-of-field. Use the slowest appropriate shutter speed to maximize lens aperture.

With most photographic systems, depth-of-field can be pre-determined before exposure to ascertain whether the whole subject will be in focus in the frame. If the depth is insufficient:

1. Expose multiple images at various depths
2. Adjust the camera to subject angle to minimize subject relief, or
3. Add light to the subject to allow the use of a smaller lens aperture.

5) **Accurate light metering**

Camera meters are preset at the factory to register any scene reflectance as 18% of the light falling upon it. If the reflectance is higher than 18%, the camera will think the scene is still 18% and if allowed to meter on automatic, will cause underexposure. If the reflectance is lower than 18%, the camera will think the scene is 18% and

allowed to meter on automatic will cause overexposure. In-camera metering systems weighted in particular patterns, if set properly, will yield better results than averaging automatic systems.

The most certain method of light metering is to gather the necessary information about the most important part of the scene with either a hand-held light meter or the built-in meter by moving in so that the important area of the scene fills the camera viewfinder. Using the obtained exposure information will create better-exposed and more consistent images.

6) Optimize contrast

Unless appropriate, avoid having the light source behind the subject unless great care is taken to meter properly for the subject. On bright, sunny days, expose for the shadows or use fill lighting or a reflector to minimize the depth of the shadows.

Use the appropriate lens filtration to minimize contrast.

7) Use appropriate references

Visual references are always necessary to be able to guarantee, within the capabilities of the media:

1. Accuracy of color
2. Subject size
3. And sometimes, location in the universe

Use any appropriate object of known color, size, or immovable location as in-image



references. If the reference hides any part of the subject evidence, expose a second photograph without the reference in the image.



8) Choice of focal length

Wide-angle and telephoto lenses should be used as little as possible because they will exaggerate or shrink image perspective. If the 50MM lens on a 35MM camera is not wide angle enough to incorporate the whole scene, overlapping photos should be taken that can be put together into one montage-image. Do not re-focus when exposing a series of photographs of one object or scene.

9) Necessary Compromise

Controlling the visual depth of field, or the area of the finished photograph that is in focus, is valuable to most evidence photographs. It takes practice and a good understanding of optics to properly utilize the optimum depth-of-field in all photographs. The lens aperture used to expose a photograph is what controls the finished depth-of-field in the photograph.

Controlling shutter speed is necessary for the minimization of camera and subject movement. The relationship between lens aperture and camera shutter speed is what governs proper exposure. Every photograph involves some degree of compromise between the two exposure variables for image optimization.

10) Optimization of Perspective

Perspective is a graphic device used to describe the reproduction of a 3-Dimensional subject in a 2-Dimensional



representation. “Proper Perspective” is a representation of a subject with corresponding spatial relationships to how the subject looks with the un-aided eye. Visual clues are important to the capture of correct and appropriate perspective and a correspondingly proper sense of depth. The use of a “normal” focal length lens on any format camera will promote images with similar visual perspective to what is seen by a person with two healthy eyes. In general, normal focal length is the same as the length of the diagonal measurement of the image format. Deviations from normal in lens focal length will produce images with distorted perspective, unless the images are printed in a proper size and viewed from the appropriate corresponding viewing distance.

Separate chapters about each of these 10 steps, have or will be published separately.

Remember, the photos should tell as much as possible of the whole story and notes, drawings, or human testimony will then substantiate the images.