



## Digital & Multimedia Sciences Section – 2011

### **B7 Finding Light After Dark: Low Light Photography for Forensic Investigators**

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After attending this presentation, attendees will learn techniques used by night shift scene investigators in a medical examiner setting to photographically document decedents and places of death in low light situations.

This presentation will impact the forensic science community by providing information on photography training initiatives used in a medical examiner setting for advanced photography techniques to enhance scene investigations.

While the burden of photographic documentation may fall on a professional forensic photographer for some fortunate agencies, many non-photographers in the forensic community find themselves struggling to take high-quality photographs, especially in low light situations. Since many forensic scenes occur at night or in low light situations, the use of these techniques can prove to be very useful to the forensic community as a whole.

Untrained or inexperienced photographers often face several challenges when it comes to low light photography. These challenges are most commonly associated with the limitations of a mounted flash unit. By removing or disabling the flash unit and manipulating the camera settings, an apparent daylight photograph can be achieved. These types of photographs can add valuable information to an investigation or serve as a permanent visual record of the scene prior to evidence being removed for processing.

While inexpensive point and shoot cameras appear to be a simple solution for investigators lacking photography experience, these cameras often fail to produce the desired results. These cameras often have severe limitations and pre-fixed settings which can prevent the photographer from achieving the desired exposure. For these reasons, SLR cameras are recommended for most typical forensic photography situations and required for low light situations. This presentation is designed to show how previously untrained investigators are now using these SLR cameras and manual camera settings to perform the advanced photographic techniques used to document scenes in low light situations.

Once a basic understanding of camera operation is established, investigators should be entrusted with SLR cameras capable of long exposures and tripod mounting. Through training the investigative staff is allowed to experiment with manual camera settings, tripods, and SLR cameras under the direct supervision and instruction of a trained forensic photographer. By learning how shutter speed and aperture affect the exposure, investigators can begin to use the minimal available light to illuminate the scene beyond what is visible with the naked eye. The investigators begin to understand the limitations of a traditional flash and how street lamps, headlights, and even flashlights can provide the needed light to capture the entire scene.

With proper equipment, training, and practice, scene investigators have achieved outstanding results with time exposures and "painting with light." These valuable tools provide the quality of photographs needed for proper scene documentation and, therefore, the transfer of all available and potentially crucial scene information onto the forensic pathologist or other investigative agencies.

The result of these training initiatives is demonstrated in the photographs themselves by comparison of traditional methods to these more advanced techniques. The discussion will encourage agencies to enhance their use of photographic documentation and training across multiple disciplines as well as provide examples of how this has been accomplished in our agency.

#### **Photography, Low Light, Investigations**