



Odontology Section – 2007

F9 Bite Mark Photography: Seeing Things Differently, Digitally

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After attending this presentation, attendees will learn information on new digital camera equipment, lenses, and forensic light sources for alternate light and infrared techniques of photography.

This presentation will impact the forensic community and/or humanity presenting new information that will directly affect the forensic community regarding certain digital applications and equipment used in advanced forensic photographic applications.

New technology in digital photographic equipment and its applications to forensic investigation are continuously changing the state of the science. Attendees of this presentation will be updated on some of the most current digital cameras, lenses, and lighting options for advanced photographic techniques in bite mark documentation.

The applications of Alternate Light Photography, Infra-Red, and Reflective Ultra-Violet techniques allow the forensic investigator to see details in bite mark and wound patterns, tattoos, questioned documents, and surveillance that would otherwise be unseen with the naked eye or with conventional color or black and white photography. The impact of advanced photographic techniques is especially useful in the field of Injury Pattern Analysis, wherein bite mark investigation falls.

This presentation will describe recent personal photographic research completed with the new UVIR digital production camera from Fujifilm Corporation. Previous digital camera chips (CCD and CMOS) have been designed to filter out and block the UV and Infrared ends of the non-visible spectrum. The author and others participated in the development of Fuji's new digital forensic S3-Pro UVIR camera that was specifically designed for the forensic industry. As more usage in the public and forensic domain becomes prevalent, it is anticipated that more applications for the camera will be discovered, particularly in the area of fine art photography.

Additional topics will include new forensic light sources available for Alternate Light and Infrared photography, quartz lenses, and accessories that help facilitate the forensic photographer accomplish his work. Present casework wherein all the aforementioned equipment has been employed to demonstrate the results of this research will also be discussed.

Bite Mark, Photography, Digital