



Jurisprudence Section – 2003

E12 A Fundamentally New Way to View Pattern Images — Bite Marks

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The goal of this presentation is to acquaint the viewer with another forensic tool for the interpretation of pattern injuries, specifically bite marks.

The Forensic Odontologist (DABFO) has available a number of tools to use in the protocol of pattern injury-bite mark analysis and the comparison process. The legal community needs to know that these tools and protocols exist and how they are used. The use of one tool in particular, Lucis Imaging Technology, has been used by the presenter for several years on a number of bite mark cases in several states.

Images often contain several hundred to thousands of contrast levels. The human eye can only differentiate thirty-two. Gross features in a photographic image are visually defined by gross contrast variations. The finer contrast variations are only partially recognized but much of the time eyes cannot resolve.

This technology compares on the monitor each pixel to every other pixel along hundreds of radial lines in two directions to map out contrast variances. These variances within a selected range are then enhanced and variances outside the range are diminished. The relative emphasis of the contrast information is shifted but never removed or lost.

The presentation will show several bite mark cases using Lucis Imaging and other tools and how they may aid the forensic scientist and the legal community.

Bite Marks, Lucis Imaging Technology, Odontology Tools