



Pathology Biology Section – 2003

G80 Evaluation of a Putative Snuff Film

William R. Oliver, MD, Armed Forces Institute of Pathology, 1413 Research Boulevard, Rockville, MD; Peter G. Lawson, Naval Criminal Investigative Service, 620 John Paul Jones Circle, Portsmouth, VA; William C. Rodriguez III, PhD, Armed Forces Institute of Pathology, 1413 Research Boulevard, Rockville, MD; and Douglas Knittel, MD, Naval Medical Center, 630 John Paul Jones Circle, Portsmouth, VA*

The attendee will understand how to critically evaluate computer animation from a medicolegal perspective.

So-called “snuff films” are films, which purport to show an actual killing as entertainment. The killing is done for the purpose of the film, as distinguished, for instance from compilations of executions and killings from news reports or taken by observers. The existence of “real” snuff films or whether they are an urban myth is an occasional source of debate.

This is a case report of a putative snuff film that was presented to investigators as evidence of a possible homicide. In this animation, a young woman was tied to a chair and shot. The investigators were skeptical, and before expending resources to search for a body asked for an evaluation of the imagery. This presentation will detail some of the findings, and provide an approach to the evaluation of such imagery.

A copy of the data was provided to the Digital Image Processing Laboratory, and the cine was evaluated on a frame-by-frame basis. Analysis focused on two primary areas:

1. Internal inconsistencies (features in the image that were not appropriately constant), such as inappropriate optical flow, evidence of image manipulation, etc.
2. Factual inconsistencies (features which did not fit natural laws), such as inappropriate bloodstain patterns.

In this particular instance, a number of internal inconsistencies were found in the imagery, including inconstant positioning of the entrance wound, inappropriate firing of the weapon, inaccurate bloodstain patterning, and others. A computer search was performed to determine the provenance of the animation, and was successful. The film was traced to its original release on the internet a few years ago and to the production house that made it. A Canadian special-effects company that specializes in “fantasy violence” had made the film as a publicity effort.

A number of points can be made from this analysis, including the importance of a multidisciplinary approach to integrating scene and medical information, the effects of image quality and compression method, and the use of the internet as a source and repository for these kinds of films and resource for their investigation. In this particular case, the use of JPEG compression placed severe limitations on the analysis of optical flow, since the details necessary for such evaluation were obscured by the JPEG blocking effect, which becomes increasingly problematic if contrast enhancement is used.

As digital imagery becomes increasingly integrated into the current culture, forensic pathologists and physical anthropologists should expect to receive more and more images for medicolegal evaluation. The evaluation of these images requires both an understanding of the medical aspects of the scene being analyzed but also a comprehension of how to approach imagery and how to handle digital evidence. In cases of digital imagery, the media containing the data may well be itself a piece of physical evidence to be analyzed separately than the data contained therein. A number of groups, including the Scientific Working Group on Digital Evidence are promulgating guidelines for handling evidence that is provided in digital format, while other groups, such as the Scientific Working Group on Imaging Technologies in the U.S. and similar groups in the international arena are developing guidelines for the acquisition and evaluation of digital data. A short discussion of the handling of digital evidence and the place of the medical examiner in handling such evidence will be provided.

In this particular instance, a determination that this image was not of an actual killing was made rather quickly, and a more intense examination

was not necessary. Possible further approaches to evaluation will be discussed.

A short review of the snuff-film urban legend and its variants, and an introduction into some of the material easily available through modern distribution methods of imagery, including the internet, will be provided.

Video Analysis, Image Analysis, Snuff Film