B199 Redefining Crime Scene Investigation

Michelle D. Miranda, PhD, Farmingdale State College, SUNY, Farmingdale, NY 11746; Peter R. De Forest, DCrim, Forensic Consultants, Ardsley, NY 10502; Rebecca E. Bucht, PhD, NBI Forensic Laboratory, Vantaa 01301, FINLAND*

Learning Overview: After attending this presentation, attendees should consider and perhaps reevaluate what characterizes appropriate crime scene investigation and a crime scene investigator.

Impact on the Forensic Science Community: The presentation will impact the forensic science community by drawing attention to the shortcomings of the extant role of a crime scene investigator as technician versus the more appropriate role as a scientific crime scene investigator as an educated individual with skills in observation, critical thinking, and reasoning that make for more effective recognition of traces at crime scenes.

The terms commonly used to describe investigative activities at a crime scene are misleading. These terms including collection, recovery, processing, and gathering seem to imply that the important traces that can inform the investigation and provide details about the activities taking place during the commission of the crime are lying about in plain sight ready to be documented, picked up, and packaged for transport to the laboratory.

Unfortunately, this is the dominant conceptualization and it also typifies existing practices with respect to education, training, and fieldwork. The most crucial elements—recognizing traces and making an informed selection of which items and traces to document and collect—does not receive the attention and appreciation it deserves. Such passive, rote practices ignore the complexity of crime scene investigations and the need for scientific reasoning and problem-solving approaches. Because of a scientifically naïve defining and circumscribing of the problem or event being investigated and the consequent selection of potential traces, these practices severely compromise the subsequent laboratory investigation. The ***most relevant*** traces may go unrecognized and be left at the scene and thus limit the potential contributions of the laboratory.

It must be borne in mind that at the outset of the scene investigation, the specific scene presents a new and unique situation that cannot be approached with a formulaic mindset. No two crime scenes are ever exactly alike. Extensive crime scene experience with past cases is valuable and indispensable, but it must not be relied on to the extent that any prior case is used as a confining template for the investigation of the "latest" one. It is proposed that agencies move away from the technician driven "bagging and tagging" of traces at the scene and move towards more science-based investigative methods. This should be done by assigning these critical responsibilities to experienced scientists properly educated and trained in the scientific method and critical reasoning, and further contextualize the specific aspects of a scene to facilitate the recognition of the possible resultant traces.

In addition to proposing some key knowledge, skills, and abilities that a crime scene scientist should master and in highlighting deficiencies in existing education and training practices, this presentation will demonstrate the potential of unrecognized evidence in the form of cases where the inappropriate handling of traces at the crime scene had significant (negative) effects on the forensic investigation. Considering recent attention to bloodstain pattern analysis, the presentation will consider cases where passive crime scene investigation and lack of applied critical thinking impacted interpretation and relevance of blood traces.

Crime Scene, Scientific Investigation, Scientific Reasoning