FORENSICS:

FROM ITS ESOTERIC HISTORY TO THE STREETS OF BAGHDAD

By Mrs. Pamela M. Collins

Before 11 September 2001 and our military involvement in Iraq and Afghanistan, crime scenes and evidence processing were phenomena that most of us only observed on television or in the movies. However, the events of that fateful day piqued our morbid curiosity and, like voyeurs slowly driving past a car accident to observe the carnage, we were enthralled by the human depravity and questionable moral character of the revealed criminal. We were even more fascinated and impressed by the scientific applications used to answer the questions of who, what, where, why, and how.

Our nation has been exposed to the captivating world of forensics through television shows such as *CSI: Crime Scene Investigation*, *Forensic Files*, and *Court TV*. We have learned how simple items such as cigarette butts and tire tracks can be used to identify a criminal; place him at the scene of a crime; and in some cases, prove his intent. As Soldiers, though, we didn't expect to be called upon to collect "evidence" at a "crime scene." But as we move through villages, clearing homes in an attempt to glean the "who, what, where, why, and how" from a group of people with whom we have little in common, we are being asked to recognize and secure what is essentially evidence—evidence that will be used to prosecute the worse kind of criminal: a mass murderer.

So how did we shift from Soldier to detective? The transition came about as a result of technology that allows evidence to become a means of exposing and tracking the enemy. We may not be physically present when an enemy plans and conducts an attack against us, but like the crime scene detective, we can examine events that have occurred and identify the enemy through the exploitation of physical evidence.

Evidence is defined as anything that helps us reveal proof of a fact or discover the truth of a matter, such as the identity of a person and the nature of his actions. Fortunately for us, wherever people go, they leave traces of themselves and take traces of their surroundings with them. As a result, criminals leave clues to their identity at crime scenes. This basic principle is not new; it was formulated by Edmond Locard in 1910 and termed Locard's Exchange Principle. And it was developed on the heels of fingerprint ridge identification and classification, which were used in the late 1800s. It was during this time that pioneers such as Sir Francis Galton and Edward Henry contributed to the development of modern fingerprint identification, which became the linchpin of investigations. All other forms of evidence (blood, hair, fibers, tire and shoe impressions) were considered "class characteristics." While fibers from a suspect's pants might match the color, texture, and consistency of those found at a scene, such a match could not be used to place the suspect at the scene with certainty. For that, a viable fingerprint was needed. Likewise, although a drop of blood or other bodily fluid could be used to include or exclude a suspect by what was called "ABO blood typing," even bodily fluids could not be used for positive identification—at least not until 1986. It was then that a University of Leicester (England) genetics professor, Sir Alec John Jeffreys, was able to identify a serial rapist/murderer through his deoxyribonucleic acid (DNA) "fingerprint" by examining blood samples from every potential suspect in the surrounding area.[1] This type of analysis took almost ten years to catch on in the United States, but has since revolutionized forensic science. The method allows a greater degree of confidence in connecting an individual to a crime scene.

The military has been involved in forensic science even longer than this. Since 1971, when the U.S. Army Criminal Investigation Command (commonly referred to as the "CID") first sent an agent to The George Washington University, Washington, D.C., to earn a master's degree in forensic science and become a fellow of the Armed Forces Institute of Pathology, the Army and its sister services have been an active part of the forensic science community. Today, there are only a handful of forensic science officers and uniformed members of the American Academy of Forensic Science that lack the title of "doctor" in front of their names—a small but eclectic group of self-proclaimed "geeks" of which I am proud to be a member.

In the War on Terrorism, the central criminal courts of Iraq are relying on us to provide the evidence necessary to incarcerate captured terrorists and insurgent personnel

who have attacked U.S. and coalition forces. The successful collection of physical evidence may mean the difference between a life sentence and the release of someone who has committed an act of terrorism. Fortunately, it doesn't take years of training and field experience to be able to collect material without contaminating it; common sense and a little forethought are all that are required.

As part of the U.S. Army Training and Doctrine Command Improvised Explosive Device (IED) Defeat Integrated Capabilities Development Team, the U.S. Army Military Police School (USAMPS) has developed a Level I training support package on Evidence Awareness. The training support package is posted on the IED Defeat Training Web site at <*https://www.us.army.mil/suite/page/477426*> and is available to all authorized personnel through the Army Knowledge Online (AKO) (<*http://www.us.army.mil*>) and Battle Command Knowledge System (BCKS) (<*http://usacac.army.mil/CAC/bcks.asp*>) Web sites. Additionally, USAMPS developed a Level II Battlefield Evidence Exploitation Course and mobile training teams began teaching it in the fall of 2008. This course supports and augments training currently conducted by the National Ground Intelligence Center and U.S. Army Intelligence Center. These courses are open to select Soldiers in predeployment status. Deploying commanders are encouraged to have a team of three to five Soldiers complete one of these courses prior to deployment. This training will enable U.S. Soldiers to collect evidence at a greater echelon. Finally, military police Soldiers attending the Maneuver Support Center Noncommissioned Officer Academy at Fort Leonard Wood, Missouri, receive additional blocks of instruction on evidence collection, U.S. Army Criminal Investigation Laboratory and deployable laboratory capabilities, and biometrics.

Endnote:

[1]The dramatic true story of the first murder case solved by genetic "fingerprinting" is presented in *The Blooding* by Joseph Wambaugh, Perigord Press/William Morrow and Company, Inc., New York, 1989.

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