



e have written several articles for PI Magazine speaking to background checks, proactive security programming, drafting security surveys, and the art and science of interviewing and interrogation [1-6]. This article will focus on testing the accuracy or inaccuracy of information gleaned during an interview and/or interrogation. Whether forensic science brings you to the table or not, once the table is set and all interviews have been completed, it's time for substantiating interview assertions. Skilled sleuths instinctively know that testing the accuracy of all assertions is like peeling back the onion on people, places, and things. Their guiding beacon should always be to never trust and always verify. Eyewitnesses are sometimes fallible, but science lays out the truth in plain sight. Looking back over the past century, criminologists have moved from fingerprint identification to DNA tagging, tire / foot printing, and fabric pattern deciphering to name a few. To quote Sir Winston Churchill: "The future is undistinguishable, but the PAST gives us guidance". What is ahead is to understand that the future of science is yet unwritten!

DEFINITION OF FORENSIC EVIDENCE

Black's Law Dictionary defines forensic evidence as any evidence that either proves or disproves any matter in question.

EVOLUTION OF FORENSICS

Man's quest to solve crimes dates to ancient civilizations. Over 2000 years ago, a dynasty emperor in ancient China had one of his closest friends killed by someone from within his court. To solve the crime, the emperor called each suspected person to appear before him for questioning. Everyone interviewed denied having anything to do with the murder. The emperor then ordered each suspect to lay their swords in front of them. The emperor then ordered his "royal archers" to stand at the ready with arrows pointed at each suspect. The visual sword inspection revealed that each of the swords were bloodstain free. The emperor then dispatched one of his subjects to the local slaughterhouse to retrieve a band of flies which he later released where the swords laid waiting. The flies sensing the bloodstain made a beeline to the contaminated sword. The subject who owned the sword immediately confessed and pled for his life. Justice was served as the emperor had his archers furnish justice with a flurry of arrows.

The Father of the Forensic Sciences was the French criminologist Dr. Edmond Locard in the late 1800's (called the Sherlock Holmes of France). Locard created a handbook of principles and processes to preserve, collect and evaluate

evidence that supports or refutes witness accounts of a crime [7]. Lockard's exchange principle is still taught in all accredited crime scene universities and is used today at all criminal and civil crime scenes. The exchange principle states: wherever one steps, whatever one touches, whatever one leaves at the crime scene is evidence.

This evidentiary mother lode includes but is not limited to fingerprints, footprints, hair follicles, clothing fibers, tool markings, paint particles, impression evidence, trace evidence blood, bodily fluid and/or semen deposits, all of which help forensic crime scene investigators solve crime puzzles. Unlike eyewitnesses, this type of evidence does not forget, never becomes confused and is always extremely reliable. In criminologist circles this is factual, super reliable and perjure-proof evidence. The only adverse issue with this evidence is human failure to find it, study it, and understand it!

EVIDENCE TYPES

Evidentiary evidence includes:

- Class evidence tire tracks, footprints, soil samples, paint chips, pry marks, impression evi-
- Individual evidence fingerprints, DNA, ballistic striations
- Forensic fiduciary evidence profit/loss estimations, internal control evaluations, ratio analysis studies, errors and irregularities canvasses, etc.

CLASS AND INDIVIDUAL EVIDENCE

It is important to note that individual evidence has a greater value than class evidence in that this type of evidence helps to put a suspect at the scene of the crime; and is usually irrefutable. Both class and individual evidence are helpful in both criminal and non-criminal cases. The Crime Museum located in Washington DC is an excellent educational resource and repository on the forensic sciences. Their library contains a treasure-trove of insightful factual forensic data on dangerous substances (lead, radium, etc.), biological evidence (hair, blood, DNA analysis), impression evidence (ballistics, bite marks, fingerprints, footprints, tire tracks), trace evidence (fibers, soil, glass, handwriting analysis) [8].

FIDUCIARY EVIDENCE

Like other professions, investigators are not all specialists. The forensic investigative sleuth is trained to analyze, interpret, and summarize complex financial and business-related matters. Many firms team CPAs and investigators to work on these often-complex white-collar misdeeds. Typically, these financial sleuths are called to investigate crimes such as bribery, blackmail, embezzlement, extortion, and forgery. Further information on how the team approach delves deep into deciphering criminality can be found in two articles coauthored by the undersigned [9-10]. Customarily, these fiduciary investigators undergo hours of specialized training and are appropriately credentialed. One of the largest organizations offering training and certification in this forensic discipline is the Association of Certified Fraud Examiners [11]. Two examples of how these forensic wizards do their magic can be found by simply looking at the following cases:

TABLECLOTH CASE

A business owner reported a huge income drop at his restaurant. The conventional investigative approach almost always involves interviewing restaurant staff and employing surveillance technologies to hopefully capture the fraudster at work. The forensic specialist's approach almost always begins quite differently in that before any standard conventional investigative strategies are initiated, basic accounting sales vs. cash metric comparisons are immediately employed to gauge the extent of the fraudulent activity.

This metric application involves ascertaining the number of meals served for a given period and comparing it to the number of tablecloths used during that same period. Having this data in-hand helps to immediately gauge the extent of the institution's theft problem and gives the forensic investigator a starting point from which to begin his or her investigative magic.

SKIMMING CASE

A seafood restaurant owner reported huge cash losses at her restaurant. In this case scenario, the forensic sleuth would begin by applying the "antiskimming strategy" to help ascertain whether cash receipts were being removed. Technologically, both video and audit strategies need to be instituted to help ascertain the magnitude of these frauds. The internal mechanics of this form of investigative exercise include checking whether cash sales dropped or spiked, checking whether currency spikes or drops occurred especially while managerial staff were absent, checking whether cash register tapes disclosed irregularities, checking whether surreptitious video (eye in the sky) recordings revealed irregularities, and ascertaining whether certified audits were regularly completed. More artful forensic detectives know that skimming is most common in cash-rich businesses such as restaurants, food stores, candy stores and other similar retail establishments. Oftentimes, these schemes left unchecked will continue for long periods of time. It's important to note that periodic audits by credentialed audit and accounting firms can help catch these fraud schemes early on before necessitating criminal intervention. These simple audit and video approaches help to quickly gauge the magnitude of the fraud problem and stop the financial bleeding before it totally kills the business.

LOOKING BACK TO THE FUTURE

The field of forensic science is traveling at warp speed. Since the turn of the 20th century the main forensic tool used by protection advocates was the fingerprint. Today, there is a galaxy of tools in the investigative toolbox to help fight the war on both white- and blue-collar crime. The astute forensic detective's job is to make sure that every piece of evidence is collected, catalogued, safeguarded, and forensically evaluated. The key to solving the crime puzzle may very well be a simple hair follicle, tire track, clothing fiber, blood stain or forensic accounting metric! PI

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- 11. https://www.acfe.com

SUGGESTED READING

Illustrated Guide to Crime Scene Investigations CRC Publisher by Nicholas Petraco & Hal Sherman ISBN# 0-8493-2263-4

Definition of Forensic Evidence - https:// thelawdictionary.org/forensic-evidence/ Techniques of Crime Scene Investigations CRS Press by Barry Fisher ISBN # 0-8493-1691-X

Definition of Skimming: https://www.accountingtools.com/articles/2018/1/27/ skimming

BIOGRAPHY

John Gaspar, B.S., M.S., C.F.E., C.S.T (Ret. NYPD) is a Retired NYPD Major Case Squad Detective and Florida Sheriff's Detective. He started his career as a Criminal Justice

Professional in Law Enforcement in 1973, with the New York City Police Department. While with the NYPD, he worked as an Educator, Administrator, Police Recruit Instructor, Patrol Officer, Detective and Supervisor. He also served as a curriculum developer and educator in New York City Police Department's Police Bureau. Gaspar continued to progress in his career with the NYPD, working in a variety of investigative capacities, including Detective assignments in the Organized Crime Control Bureau, Intelligence Division (Executive and Dignitary Protection), Major Case Squad (Bank Robberies and Fraud Investigations), Special Investigation Division, Terrorist Task Force, Hostage Negotiation

- Kidnapping Squad, Crime Scene Forensics and Special Investigation's Forensic Hypnosis Unit.
- 13th Division Homicide NYC
- Intelligence Division & Dignitary / Celebrity & Principal Protection

- Organized Crime Control (Public Morals & Narcotics)
- Major Case Squad Bank Robberies & Terrorist Activities NYC
- Economic Crime Division Supervisor -Fraud & White-Collar Crime - Florida Sheriff's Office
- Hostage Negotiator / Crises Intervention Team Leader

Specialized Training

- Certified Fraud Examiner
- Master Crime Scene Investigator
- Forensic Hypnotist Memory Retrieval -New York & Florida
- Firearms Instructor
- Defensive Tactical Instructor
- Hostage Negotiator-Threat Assessment

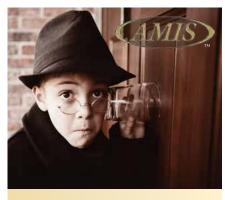


Anthony J. Luizzo, PhD, CFE, CST, PI (RET. NYPD), is a member of the Board of Advisors of Vault Verify LLC. He is a former member of the NYPD and held senior security positions with the NYC

Mayor's Office of Business Services / Economic Development and the NYC Health and Hospitals Corporation (largest public healthcare system in the United States). He is a published author and has been featured in Security Management Magazine, PI Magazine, Texas Investigator Magazine, The CPA Journal, The Practitioner: LACPP Magazine, Better Buildings Magazine, The Campus Law Enforcement Journal, Security Magazine (White Paper), Internal Auditing / Fraud Report, and The Journal of Healthcare Protection Management. He was a contributing author/editor for Thomson-Reuters / RIA Group publications. He was an elected eastern regional governor of the Association of Certified Fraud Examiners (acfe.com/profile-luizzo.aspx), president emeritus of the New York Chapter Association of Certified Fraud Examiners, past president: Society of Professional Investigators. He is a Court qualified security expert - Cited in the N.Y. Jury Reporter Bronx Supreme Court (October 1998).

Citations:

- Resolution: New York State Legislature (Senate # 613 – Assembly # 599) - 1983
- Citation: 98th U.S. Congress, Hon. Joseph P. Addabbo - Congressional Record - 1984
- <u>Citation</u>: Brooklyn Borough President: 1990
- Distinguished Achievement Award: Association of Certified Fraud Examiners -1996



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