



Part II:

Solvability Factors In Cold Case Homicides

Richard H. Walton, Ed.D, V.S.M

Two primary solvability factors have been identified that facilitate solution in "cold case" homicides. These are 1) changes in technology, and 2) changes in relationships. Some cold case homicides have been solved utilizing only one or the other of these solvability factors, while other cases have been resolved incorporating both. The passage of time, once fatal in some homicide investigations, has now become an asset. Each of these factors share a common lynchpin, however, the experienced homicide detective. Knowledge and understanding of these factors may be a basis for the investigative plan formulated for a cold case homicide investigation.

Technology Changes

Significant advancements in technology since the late 1970's have advanced suspect identification through systems unforeseen by criminals as well as by many in law enforcement. Among these systems most frequently used by law enforcement are 1) CODIS; 2) AFIS/IAFIS; and 3) NIBIN. The use of these systems in cold case homicides, however, is dependent upon the original identification, collection, and proper retention of the necessary evidence as well as data input into their respective system.

The Combined DNA Index System, or CODIS, is a 3-tiered DNA index system that links public crime laboratories and is used to generate leads in crimes where biological evidence recovered from a crime scene can be matched to a known offender's DNA profile or to other crime scenes. These three levels of computer-linked indexes include a Local DNA Index System (LDIS), a State DNA Index System (SDIS), and the National DNA Index System (NDIS). NDIS, maintained by the FBI, is in essence a network of all the state DNA databases.

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In Memoriam:

Passing of Tim Hill, VSM

By William Fleisher, Commissioner

I am sad to report the death of my friend and Vidocq Society member Tim Hill. Tim passed peacefully at home Saturday after a long illness. He was only sixty-four years old. Those of us who remember Tim, a screen-writer, knew him to be a bright, upbeat and interesting GENTLEMAN who along with his wife Danielle was such fun to be around.

I was blessed to have spent time with Tim who accompanied me on an inquiry in Los Angeles many years ago. He was very helpful and gave excellent advice to me on many topics. I also enjoyed his interesting questions.

There will be a memorial service for Tim on November 11, 2006 to honor his life.

Those of you who wish to send condolences to Danielle and the Hill family can send them to:

Mrs. Danielle Hill
255 Maberry Road
Santa Monica, CA 90402

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Bookspan's Bullets

By Dr. Jolie Bookspan, Science Officer of the Vidocq Society

Hair and Nails Don't Grow After Death

When you are alive, fingernails grow an average of about a tenth of a millimeter per day. Toenails grow about a half to a third more slowly. Head hair grows about half an inch each month. In his novel, *All Quiet on the Western Front*, Erich Remarque imagines a dead friend's nails growing in corkscrews after his burial. In the 1959 movie *The Tingler*, Vincent Price's character states that hair and nails grow after death. But, hair and nails no longer grow after death. It is a myth. A body dehydrates after dying. The flesh dries and retracts away from nails and hair. Though the hair and nails remain the same length as before death, they protrude more prominently. This change can appear as an increase in length. To combat skin shrinkage, funeral homes put moisturizing cream on bodies, particularly on the faces of men with heavy beards.

- "Dead Men Do Tell Tales: The Strange and Fascinating Cases of a Forensic Anthropologist" by William R. Maples.

Powdered Glass Not Injurious If Swallowed

The idea that you could kill a person by giving them powdered or ground glass mixed in food or drink was a long-held popular belief. Powders of fine glass were shown as evidence at a murder trial in Agra India, reported in a December 1912 edition of *The Times*. However, powdered glass as a murder weapon, known as "succession powder," was experimentally debunked as long as 200 years ago. The powdered glass would have to be finely powdered to mix with the food and escape detection by the intended victim. It would have to be put in food or drink that would not be chewed, or else be felt as gravelly texture. The consistency would have to be so fine that it could not cut or harm, and would go through the digestive system without harm. Splinters or shards of glass are a different matter. Broken sections of glass may cut the esophagus, the stomach, and the intestines, but the large size would be harder to get the intended person to accept the meal without suspicion.

- *Popular Fallacies Explained and Corrected*, 1923.
- *Doctors Don't Believe It— Why Should You?* 1941. *The Prevalence of Nonsense*, 1967.

Man Robs Judge at Own Trial

A 61-year-old German man on trial for theft stole a ring of keys during his court hearing from the judge. Police in the town of Coburg said the man pocketed the judge's keys while facing her at the bench. The judge did not notice the loss of keys until the man had left the room.

When confronted in the washroom by court officials, the man told officials he was shocked to discover the keys in his pocket. The man had a string of convictions for theft. Police spokesman Bernhard Schmitt said, "He'd been stealing all his life so it was probably just an intuitive act. He told them he realized how suspicious his story would sound and that he had therefore hidden the keys under a toilet brush." The man wrote a written confession while the court officials decided what to do next. The initial trial was temporarily suspended on legal grounds in case the judge showed bias in the case.

- Reuters, July 14, 2006

Forensic Science Exhibit at Canada Science Museum

An interactive exhibition of forensic science opened September 29th 2006 at the Canada Science and Technology Museum. "Autopsy of a Murder" begins with a video of a dramatic murder and profiles of three suspects. Viewers are guided on video by Deputy Chief Investigator

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Catherine Nelson through genetics, ballistics, biometrics, toxicology, crime archives, interrogation techniques, facial profiling, fingerprinting, and autopsies. Viewers assemble clues to determine the killer. Exhibition project manager Shelley Boudreau says, “‘Autopsy of a Murder’ demystifies a show like CSI as something you can do in half an hour while wearing high heels. This is the real thing.” Autopsy of a Murder runs until Sept. 3, 2007. Admission is \$6, \$5 for students and seniors and \$3 for children. The museum’s website gives a tour:

www.sciencetech.technomuses.ca.

- Ottawa Sun, Sept 29 2006

Burglars Run Away After Finding Severed Heads

Burglars who broke to the basement of a Vienna apartment ran after finding eight severed human heads in a storage trunk. The mummified heads were stored in the basement by a dentist who said he used them for research. A spokeswoman for Austrian police said, “From what it looks like, they just left them lying and bolted away.” Authorities began investigation if there had been a breach of regulations for storing research materials.

- Reuters, September 25, 2006

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CODIS utilizes two indexes to match crime scenes and offenders. Unknown DNA profiles obtained from a crime scene are entered into the Forensic Index while profiles from known offenders are entered into the Offender Index. A “Hit” occurs when there is a match between two or more DNA profiles that provides police with an investigative lead that would not have otherwise been developed. In addition, CODIS has other indexes that maintain DNA profiles for missing and unidentified persons as well as a population index for statistical purposes. CODIS has proven especially useful in cold case homicides where there is a sexual assault component.

Automated Fingerprint Identification Systems (AFIS) utilize advanced digitalization and imaging technology to replace the necessity for manual review of millions of collected ‘tenprint’ fingerprint cards held by the nation’s law enforcement agencies.

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These systems have the ability to capture, store, and search on finger images that have been converted into an electronic format that allows electronic searching. Similar to the CODIS system, tiered AFIS systems are maintained by local and state



FBI agent using AFIS computer

agencies, and in the post-911 era, are now linked nationally through the Integrated Automated Fingerprint Identification System (IAFIS) maintained by the FBI.

The National Integrated Ballistic Information Network (NIBIN) is overseen by the Bureau of Alcohol, Tobacco, Firearms and Explosives. Similar to the CODIS and AFIS tiered systems, this computerized system stores and compares digital images of cartridge cases, fired projectiles, and projectile fragments associated with criminal events. Most commonly, these are from semi-automatic weapons. This system is an outgrowth of two previous competing and incompatible digital ballistic imaging systems, “Drugfire” instituted by the FBI in the late 1980’s and a competing ATF program, “Ceasefire.”

The databases for these three systems are constantly expanding. While data entered into CODIS is maintained and constantly checked against new entries, AFIS and NIBIN systems necessitate periodic re-entry of unknowns against then-current database.

Relationship Changes

With the passage of time, interpersonal relationships may deteriorate between husbands and wives, friends and lovers, business associates, and others. Witnesses have life style changes, move away from previous associates, find religion, or mature. These changes offer law enforcement the opportunity to develop previously recalcitrant witnesses, identify previously unknown witnesses, and to develop critical information necessary to identify the killer and lead to arrest and conviction.

Part III will discuss additional resources available to law enforcement to investigate and solve cold case homicides.

Criminal Justice Dinner

By Ed Gaughan

Our friends at Albright College have invited us to their annual Criminal Justice Dinner. Bob Gerken, VSM had arranged for a case presentation from a local police department. The date for the dinner is Monday November 13, 2006 and there is no cost to Vidocq members. I know this is a busy month for Vidocq members with the Black tie and the Tallahassee Seminar, but if you are available to support Vidocq and can attend one or both of these events please RSVP to the Vidocq office at 215-545-1111.

Albright College Career Night

By Ed Gaughan

Talk to students on Career Night. Share your experiences in Forensics, law enforcement and other crime solving fields. Albright College has asked if any of our members would like to attend their Career Night on November 15, 2006.

You are cordially invited to the
Vidocq Society
Annual Awards Dinner

Saturday, November 18, 2006
7:00 p.m.
aboard The Koshulu
on the Delaware, 401 South Columbus Boulevard, Philadelphia

Hors d'Oeuvres on the Bow Deck
Open Bar
Dinner, Below Deck
Mahi Mahi with Petit Filet Mignon -or- Vegetarian Option
Apple Galette with Caramel Sauce & Vanilla Ice Cream
Coffee and Tea
Presentation and Awards
Dancing
Return to the Bow Deck for Port and Fine Cigars

\$125.00 per person *Black Tie or Dress Uniform*
Kindly reply no later than November 3, 2006
For additional information,
contact Stanley C. P. Olkowski III - 267-278-0467

Solve the Mystery

If someone is faster than a speeding bullet how fast must they travel?

If you know the answer email us at: paudav1@earthlink.net

Answer to July 2006 Mystery of the Month

Who Discovered deoxyribonucleic acid otherwise known as DNA?

Johan Friedrich Miescher (13 August 1844 - 26 August 1895) a biologist. Isolated various phosphate-rich chemicals, which he called **nuclein** (now nucleic acids), from the nuclei of white blood cells in 1869 paving the way for their identification as the carriers of inheritance.

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