

Criminal investigation and forensic science

Sources for scholars and aficionados

by Kristine M. Alpi

Disclaimer: The views expressed in this article are those of the author and do not reflect the official policy or position of the New York City Department of Health and Mental Hygiene. Reference herein to any specific Web site does not constitute or imply its endorsement by the New York City Department of Health and Mental Hygiene.

Some of the most popular television shows in the past few years have focused on the application of forensic science to criminal investigation. *CSI*, *CSI Miami*, and *Forensic Files* have brought the terms and techniques of forensic science to a wide audience. A few forensic science Web sites, such as the Forensic Science Service site (<http://www.forensic.gov.uk>), even announce when TV shows related to their area of expertise will air. The sources discussed here will enrich both scholars and aficionados of crime investigation.

Forensic science refers to the application of principles and methods of science and medicine to legal questions of a criminal or civil nature.¹ Forensic science resources—101 sites in all—were profiled in the spring 2003 issue of *Issues in Science & Technology Librarianship*² and many of those sites are also included here, though with annotations from a different perspective. Forensic science includes many specialty areas and not all resources are free. This article focuses on free

Web sites and includes a section on medical death investigation.

Directory resources

- **Forensic-Evidence.com.** This information center in forensic science, law, and public policy is maintained by Andre A. Moenssens, the Douglas Stripp/Missouri professor of law emeritus at the University of Missouri-Kansas City. Sign up to be informed automatically when new postings are added. *Access:* <http://www.forensic-evidence.com>.

- **Forensic Science Resources—Summary. National Criminal Justice Reference Service.** This summary provides sections on background history, legislation, and statistics from a variety of sources. Publications, programs, training, and additional resources flesh out this reliable and well-documented site. Sign up for JUSTINFO to receive e-mail updates on topics of interest that you select. Forensics is only one of the many options. *Access:* <http://www.ncjrs.org/forensic/summary.html>.



- **Reddy's Forensic Page.** Links to all sorts of forensic science sites abound on this site cre-

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ated by Reddy P. Chamakura, a forensic scientist with the New York City Police Department's Police Laboratory. Many of the URLs have changed, but a wealth of active and useful links on topics from arson to toxicology remain. *Access:* <http://www.forensicpage.com>.

- **Zeno's Forensic Site.** This extensive and regularly updated site from Zeno Geradts, a forensic scientist at the Netherlands Forensic Institute, offers many general information resources as well as sections of links on forensic medicine, forensic science, and forensic psychiatry. *Access:* <http://forensic.to/forensic.html>.

E-journals, databases, and handbooks

Forensic science journals available by subscription are listed in the article "Forensic Science Resources on the Internet."³ The most complete indexing for forensic science literature—the FORS CD-ROM database, produced by the Forensic Science Service (<http://www.forensic.gov.uk>)—is not available on the Internet. CRC Press offers FORENSICnetBASELaw/ENFORCEMENTnetBASE, a subscription service for online forensic science books.

- **Crime and Clues: The Art and Science of Criminal Investigation.** This collection of articles about crime scene investigation from a variety of practitioners is hosted by Daryl W. Clemens, a crime scene technician. *Access:* <http://www.crimeandclues.com/index.htm>.

- **Forensic Science Communications.** This journal is published quarterly by the Federal Bureau of Investigation. *Access:* <http://www.fbi.gov/hq/lab/fsc/current/index.htm>.

- **Handbook of Forensic Services.** The handbook provides guidance and procedures for collecting and preserving evidence. It describes the forensic examinations performed by the FBI Laboratory. *Access:* <http://www.fbi.gov/hq/lab/handbook/intro.htm>.

- **International Journal of Digital Evidence (IJDE).** *IJDE* is a free quarterly online journal for discussion of theory, research, policy, and practice in the rapidly changing field of digital evidence. It is supported by two organizations at Utica College. *Access:* <http://www.ijde.org/>.

- **National Criminal Justice Reference Service Abstracts Database.** Several key journals in forensic science are indexed by this free online database, which includes a thesaurus with a range of relevant subject headings from forensic

anthropology to time-of-offense determination. *Access:* <http://abstractsdb.ncjrs.org/>.

Organizations

- **American Academy of Forensic Sciences (AAFS).** The AAFS publishes the *Journal of Forensic Sciences*, for which they provide a searchable online index from 1981 onward. Career and educational opportunities, including a special page called the "Young Forensic Scientists Forum," make this site valuable for aspiring and practicing forensic scientists. *Access:* <http://www.aafs.org/>.

- **American Academy of Psychiatry and the Law (AAPL).** This organization consists of psychiatrists dedicated to practice, teaching, and research in forensic psychiatry, a subspecialty of psychiatry in which scientific and clinical expertise is applied to legal issues regarding civil, criminal, and correctional or legislative matters. Content includes a code of ethics, table of contents to *Journal of the American Academy of Psychiatry and the Law*, and selected articles from the "AAPL Newsletter." *Access:* <http://www.emory.edu/AAPL/>.

- **American Board of Forensic Document Examiners.** The application of allied sciences and analytical techniques to questions concerning documents is termed forensic document examination. Use this site to read articles about document examination or locate an expert on document analysis. *Access:* <http://www.abfde.org>.



- **American Board of Forensic Odontology.** Dental identification and bitemark guidelines are just two of the resources here. There are site links to the American Society of Forensic Odontology (<http://www.forensidentistryonline.org/>) and many other organizations and individual practitioners. *Access:* <http://www.abfo.org/>.

- **American Society of Crime Laboratory Directors (ASCLD).** The ASCLD is a nonprofit professional society formed in 1974 devoted to the improvement of crime laboratory operations. The accreditation section provides a list of accredited forensic science laboratories. *Access:* <http://www.asclcd.org/>.

- **Association of Firearm and Tool Mark Examiners (AFTE).** The AFTE publishes the *AFTE Journal* and this site includes a PDF index.

Unique resources include a trigger pull database, a firearm brand/manufacturer cross-reference search, ammunition manufacturers and distributors; firearm manufacturers and distributors; and a list of ballistics links. *Access:* <http://www.afte.org/>.

- **Canadian Society of Forensic Science (CSFS).** The CSFS site includes a history of forensic science in Canada and links to the contents of CSFS's *Canadian Society of Forensic Science Journal*. *Access:* <http://www.csfs.ca/index.htm>.

- **The Forensic Science Society (FSS).** The bibliography section of this site contains a keyword searchable index to articles in the *Journal of the Forensic Science Society and Science & Justice*. Searchable databases of Web site links and book reviews are also available. *Access:* <http://www.forensic-science-society.org.uk/>.

- **International Association for Identification (IAI).** IAI offers training and educational opportunities in fingerprints, crime scene investigation, forensic photography and electronic imaging, firearms and tool marks, bloodstain pattern identification, footwear and tire track analysis, questioned documents, polygraph, forensic art, forensic odontology, innovative and general techniques, and laboratory analysis. The association publishes the bimonthly *Journal of Forensic Identification*. *Access:* <http://www.thaiai.org/>.



International Association for Identification

- **The International Association of Forensic Toxicologists (TIAFT).** The Observatory section of the TIAFT site provides a list of Web sites arranged by categories. Several of the resources, such as the online proceedings database, are open to members only. The e-mail list and online forum are open to all. The MS Library, a collection of reference electron impact mass spectra of drug derivatives produced by TIAFT members, is also available free with registration. *Access:* <http://www.tiaft.org/>.

- **Society of Forensic Toxicologists (SOFT).** SOFT comprises practicing forensic toxicologists and those interested in the discipline. The site includes Forensic Toxicology Laboratory Guidelines and Toxlinks, a searchable list of Web links, including examples of "illicit sites" for products to hinder accurate drug testing. *Access:* <http://www.soft-tox.org/>.

- **Technical Working Group for Fire and Explosions (TWGFEX).** TWGFEX position statements and document library provide a wealth of resources on fire debris analysis and the training of explosive analysts. *Access:* <http://www.ncfs.ucf.edu/twgfex/home.html>.

Entertainment

- **Court TV: Forensic Files.** Court TV has created a virtual forensics lab to explore techniques used in crime investigation. Each room of the virtual lab covers a different forensic technique, including DNA evidence, bite marks, blood splatter, time of death, and more. See also "Forensics in the Classroom," a set of cases created in partnership with the American Academy of Forensic Sciences. The resource content at <http://www.forensicfiles.com/resourcecontent.html> introduces forensic experts and defines terms they use. *Access:* <http://www.courtstv.com/onair/shows/forensicfiles/index2.html>.

- **CSI: Crime Scene Investigation.** The CSI Web site on CBS.com is focused on the television show and its cast, but does offer some forensic science information. There is a black-and-white virtual crime lab that provides the names of key equipment when you move your mouse over the image. The handbook section includes definitions of tools, evidence and procedures, only some of which have images. The *CSI Miami* Web site (http://www.cbs.com/primetime/csi_miami/) offers a color crime lab with better interactivity; the handbook content appears to be the same. *Access:* <http://www.cbs.com/primetime/csi/main.shtml>.

Specific disciplines in forensic science

- **Crime-Scene-Investigation.net.** The Crime Scene Investigator Network, based in Temecula, California, maintains this starting point for crime scene investigation links and articles. Sections include crime scene response and evidence collection guidelines, crime scene and evidence photography, training and employment, and a bookstore. A list of crime scene supply vendors is also included. Sign up to receive the "Crime Scene Investigation Newsletter" via e-mail. *Access:* <http://www.crime-scene-investigator.net/index.html>.

- **DNA Forensics—Human Genome Project Information.** This Department of Energy site answers basic questions about DNA analysis techniques and introduces ethical and prac-

tical issues in DNA databanking. Links to further reports and interesting cases provide further points for exploration. *Access:* http://www.ornl.gov/TechResources/Human_Genome/els/forensics.html.

- **Forensic Art.** Wesley Neville, a forensic artist with the Florence County Sheriff's Office in Florence, South Carolina, and a member of the International Association for Identification forensic art subcommittee, created this site to explain forensic art and provide a referral service. Animations and graphics supplement the explanations. The red print on black background is hard to read online. *Access:* <http://www.forensicartist.com/>.

- **Forensic Botany.** The Forensic Botany site is a project in the Web Literacy For the Natural Sciences class at Dalhousie University in Halifax, Canada. The site introduces subdisciplines of plant science relevant to forensic biology, with background information and case studies: palynology (study of pollen), anatomy and dendrochronology (study of tree rings), limnology (study of freshwater ecology), systematics, ecology, and molecular biology. *Access:* <http://www.dal.ca/~dp/webliteracy/projects/forensic/vandommelenst.html>.

- **Forensic Dentistry Online.** This site, sponsored by Forensic Dental Services, a United Kingdom partnership, offers the following topical divisions, many with sample cases and interactive quizzes: bitemarks, identification, legal, DNA, mass disasters. Featured services include find an odontologist, get e-mail updates, or view online lectures. *Access:* <http://www.forensicdentistryonline.org/>.

- **Forensic Entomology Pages, International.** This excellent introductory site was created by Morten Stærkeby, a graduate student at the University of Oslo. Although it has not been updated in a year, the site provides a variety of wonderful resources, including an interactive forensic entomology quiz and a link to the forensic entomology discussion list. *Access:* http://folk.uio.no/mostarke/forens_ent/forensic_entomology.html.

- **Marks Working Group—European Network of Forensic Science Institutes.** This working group brings together examiners working with shoeprint, toolmark, and other types of visual mark comparisons. Full-text of the "Information Bulletin for Shoeprint/Toolmark Examiners" is available on the site. *Access:* <http://www.intermin.fi/intermin/hankkeet/wgm/home.nsf/>.

Medical Death Investigation

- **Armed Forces Institute of Pathology (AFIP).** A small part of the AFIP site, the Office of the Armed Forces Medical Examiner, offers autopsy diagrams and Armed Forces DNA Identification Laboratory resources, including a request form for protocols. *Access:* <http://www.afip.org/>.

- **Disaster Mortuary Operational Response Teams (DMORT).** DMORT is a program of the U.S. Department of Homeland Security that assists local authorities during a Mass Fatality Incident, which is an incident in which more deaths occur than can be handled by local resources. *Access:* <http://www.dmort.org>.

- **Investigative and Forensic Sciences, National Institute of Justice (NIJ).** NIJ sponsors research, development, and evaluation of new and existing forensic technologies and methods. Publications on this site include the report "Advancing Justice Through DNA Technology" and the *NIJ Journal*. *Death Investigation: A Guide for the Scene Investigator* (<http://www.ncjrs.org/pdffiles/167568.pdf>). *Access:* <http://www.ojp.usdoj.gov/nij/sciencetech/ifs.htm>.

- **Medical Examiner and Coroner Information Sharing Program.** This site from the Centers for Disease Control and Prevention includes the "Death Investigation in the United States and Canada" manual and links to the death registrars for all states and major cities. *Access:* <http://www.cdc.gov/epo/dphsi/mecisp/index.htm>.

- **Medicolegal Death Investigation System: Workshop Summary.** This 2003 report from the Committee for the Workshop on the Medicolegal Death Investigation System of the Institute of Medicine is the beginning of a review of the role of the medical examiner/coroner death investigation system and its promise for improving the criminal justice system, health and medical care, public health surveillance, epidemiologic research, prevention programs, and response to bioterrorism. *Access:* <http://search.nap.edu/books/0309089867/html/>.

- **National Association of Medical Examiners (NAME) Web Site.** "So You Want to Be a Medical Detective?" provides an introduction to the work of medical examiners. The library on this site includes guidelines and

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Just as important, the e-selection tools proved to be good marketing and public relations mechanisms for the library. Our library is perceived as a campus technology leader, a place where the staff continuously explores new tools and technologies to improve existing resources and services to better serve our constituents. The benefits from using the tools are both tangible and intangible: wiser selections leading to improved collections, improved faculty-librarian communication, greater understanding, and deeper collaboration.

E-selection tools can yield a high return with a minimal investment for an academic library of any size or collection scope. Having fewer or no paper selection cards to deal with is an added bonus about which few librarians or faculty can complain.

Note

1. Operational details, screen shots, and descriptive notes are provided at staff.philau.edu/bells/eselect.htm. ■

("Taking Immersion home," continued from page 588)

- Focus on the long-term goal while celebrating successes along the way.
- Begin with a small group of people and work toward incorporating a variety of ideas and talents from a variety of groups.
- Build on the expertise and strengths of veteran librarians and draw upon the enthusiasm and new ideas of new librarians.
- Keep your focus on students and on their learning.
- Share your experience with others.

I wish each of you well with your information literacy initiatives on campuses large and small. Students will benefit from your creativity, caring, and perseverance.

Thank you to the Immersion faculty⁸ for your commitment to creating quality educational experiences for librarians who teach. Thank you to ACRL for sponsoring this national program each year and to the Wisconsin Association of Academic Librarian's Information Literacy Committee for sponsoring the 2001 regional program. Immersion '01 provided a learning experience well worth taking home.

Notes

1. For more information, see www.aclrl.org/immersion.

2. Association of College and Research Libraries, "Competency Standards for Higher Education," *Teacher Librarian* 28.3 (Feb. 2001): 16–18.

3. Visit the University of Tennessee's information literacy Web site at www.lib.utk.edu/instruction/infolit/infolit.html.

4. Based on Debra Gilchrist's presentation, "Improving Student Learning."

5. From Angelo, Thomas A. and K. Patricia Cross. *Classroom Assessment Techniques: A Handbook for College Teachers*. 2nd ed. San Francisco: Jossey Bass, 1993.

6. Mark Battersby and the Learning Outcomes Network, "So What's a Learning Outcome Anyway?" Vancouver, B.C.: Centre for Curriculum, Transfer, and Technology. Available at www.c2t2.ca/page.asp?item_id=394&path=.

7. Patricia Iannuzzi, "Faculty Development and Information Literacy: Establishing Campus Partnerships," *Reference Services Review* (Fall/Winter 1998): 97–102, 116.

8. The Immersion faculty: Craig Gibson, George Mason University; Debra Gilchrist, Pierce College; Randy Burke Hensley, University of Hawaii-Manoa; Beth S. Woodard, University of Illinois at Urbana-Champaign; and Anne E. Zald, University of Washington. ■

("Criminal . . ." continued from page 593)



only offers four sites. Access: www.thename.org/.

position papers, the NAME newsletter, links to journal sites, legislation information, death investigation images, and a list of medical examiner and coroner offices, which as of September 1, 2003,

Notes

1. Madeleine R. Nash and Richard L. Faraino, "Internet Resources in Legal Medicine and Forensic Science," *Medical Reference Services Quarterly* 18.1 (Spring 1999): 59–68.

2. Cynthia Holt, "Forensic Science Resources on the Internet" *Issues in Science and Technology Librarianship* 37 (2003) [cited 1 September 2003]. Available on the Web at www.isrl.org/03-spring/internet.html.

3. Ibid. ■