

The CACNews

News of the California Association of Criminalists • Fourth Quarter 2001



The President's Desk

Everybody Wins

Who have you encouraged to participate in the CAC or any other forensic organization *lately*? Most assuredly a challenge, one I extend not only to all of the bench criminalists in the CAC, but especially to the supervisors and administrators in the various laboratories across California, Nevada, and Arizona. Why? Because this organization runs on people and its fuel for the future are all of the new or potential criminalists that we have working or interning in our laboratories.

There are many laboratory directors and supervisors who understand the importance of encouraging their employees to become involved with organizations such as the CAC. The reputation of their laboratories and the people in them has a direct correlation with the degree of involvement of their employees. These labs and their personnel help establish the standard for forensic science through study groups and discussions and through research and subsequent presentations. The CAC is also a great venue for gathering ideas on how to tackle that next challenging piece of evidence or simply to make contacts with other criminalists for the purpose of bouncing ideas off other qualified analysts to determine a best case approach. It is also a great place to gather protocols and other documents so that you don't have to reinvent the wheel.

Not only do lab directors have an obligation to either make time available or send their employees to CAC (or other forensic science organizations') meetings but the employee has the obligation to be a professional and attend meetings on their own dime if the laboratory cannot afford to send them. Too many times I have heard people complain that they have not been given an opportunity to learn new areas of criminalistics in order to advance *their* careers only to find that these individuals have either not asked to attend meetings or have refused to go if they had to pay or use some of their own time. Remember that CAC meetings are a bargain compared to other professional seminars. With few exceptions, the professionals that I've seen advance into the areas in which they want to work are those that have "paid their dues" by being self starters, going to meetings on their own, and becoming participants in those meetings and seminars.

I have had the opportunity to participate in the CAC because I have had the support and encouragement of my lab directors and supervisors. Because of this encouragement, I have also had the opportunity to become a participant. I hope that I have contributed some meaningful papers and comments to the CAC. I do know that the people that I have met, the friends that I have made, and the knowledge that I have gained through this participation is invaluable. I ask all of you, bench criminalists, supervisors, and laboratory directors alike, to encourage your co-workers to attend and participate in the CAC. It will enrich their careers, your laboratory, and the CAC.



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Daniel J. Gregonis
CAC President

Fourth Quarter 2001



On the cover...

A ghostly image of an obliterated serial number emerges during restoration. This bicycle frame's number had been ground off, but special etching techniques brought it back long enough to be photographed.

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Notice to Contributors: We publish material of interest to our readers and are pleased to receive manuscripts from potential authors. Meetings and course announcements, employment opportunities, etc. are also solicited. Advertisements are also accepted, although a fee is charged for their inclusion in *The CACNews*. Please contact the Advertising Editor for further information. Because of the computerized typesetting employed in *The CACNews*, submissions should be made in the form of MS-DOS compatible files on 3.5 inch floppy disks or by e-mail (vis@pd.sannet.gov). Text files from word processors should be saved as ASCII files without formatting codes, e.g. bold, italic, etc. An accompanying hardcopy of the file should be submitted along with the disk. Graphics, sketches, photographs, etc. may also be placed into articles. Please contact the Editorial Secretary for details. The deadlines for submissions are: December 1, March 1, June 1 and September 1.

CACBits • Section News

High Speed Video/Doppler Radar Topic at Yuma

The Southern California Firearms Study Group announced that the Year 2001 Forensic Firearm Test Session will be held at the Yuma Proving Ground December 7th and 8th, 2001.

The Yuma Proving Ground supplies the forensic firearms examiners who wish to participate with Doppler Radar and ultra high-speed video equipment and a several kilometer long range for any experiment that is deemed safe to conduct. If you have a down range exterior ballistics problem that you need data on or are trying to figure out a problem that high-speed cameras may solve, please submit your experiment for scheduling. In the past we have looked at maximum range, flight characteristics, barrier penetration, ricochet, ejection, and general exterior ballistics questions with all types of firearms. We have captured data from #8 shot (<.1") on up. This will be the 10th year The Yuma Army Proving Ground has been our gracious host and we have a good deal of Doppler Radar data and video as a result.

If you have an experiment, let us know. If you just want to come and help (nobody just watches in the end) let us know that as well. Weibel Scientific (the radar manufacturers) was at the AFTE meeting and has expressed an interest in joining us again at YPG. They indicated they might bring special antenna or other equipment that can better obtain ricochet data or the like. If you have a special project along the lines of ricochet or bullets passing through objects, please let us know so that we can alert the Weibel Scientific folks.

The test session will be open to all practicing forensic firearms examiners and other interested professionals from the Forensic Science, Firearms, and Law Enforcement communities. New attendees must provide security information to Bill Morris (AZMorris@AOL.Com 602-223-2394) in advance. All those wishing to attend should inform Bill Morris or Jim Roberts (James.Roberts@mail.co.ventura.ca.us (805) 654-2308) of their intention to attend in order that a security list may be provided to the Yuma Proving Ground security staff. This list must be provided by mid November.

Please send experiment proposals to Jim Roberts (James.Roberts@mail.co.ventura.ca.us) for scheduling. You will be contacted closer to the shoot date for experiment design and line log data that must be provided to the Yuma staff prior to your shots if you wish accurate data.

There is no cost to attend the test session other than your share of lunch costs (we usually send out for pizza). Your personal expenses for transportation, lodging and meals are your responsibility of course. The expenses for firearms and ammunition for experiments are also yours to bear; however, there is a pool of interested people that may be able to loan needed equipment in some cases.

*James L. Roberts (805) 654-2308 or
James.Roberts@mail.co.ventura.ca.us*

Firearms/Toolmarks Examiner

\$40,000 to \$65,000/year

The Northern Illinois Police Crime Laboratory (NIPCL) is seeking an experienced and court qualified firearms/toolmarks examiner. Examination of firearms, comparison of fired evidence, serial number restoration, and experience with entering and correlating data with IBIS is required. Fracture match and footwear analysis is desirable. A fully qualified candidate would possess a four year degree with emphasis in one of the biological, natural, physical, or forensic science disciplines. The candidate should have a minimum two years of independent case work analysis and be court qualified in the field of Firearms and Toolmarks. NIPCL is accredited by the ASCLD/LAB. Benefits include an employer supported retirement plan and full medical, dental, and vision coverage. Please send a resume or requests for additional information to: Director Garth Glassburg, Northern Illinois Police Crime Laboratory 1677 Old Deerfield Road, Highland Park, Illinois 60035, (847) 432-8160 (phone), (847) 432-5199 (fax) gglassurg@aol.com

Canadian Meeting in November

The 48th Annual Meeting of the Canadian Society of Forensic Science will be held November 6 to 10, 2001 at the Delta Chelsea Hotel in Toronto, Ontario, Canada. Contact: Canadian Society of Forensic Science, 2660 Southvale Crescent, Suite 215, Ottawa, Ontario, CANADA K1B 4W5. Phone:(613) 738-0001, Fax: (613) 738-1987 ,Web site: www.csfs.ca/, E-mail: csfs2001@csfs.ca.

SWAFS Features DeForest Workshop

The Bexar County Criminal Investigation Laboratory is hosting the 2001 annual meeting of the Southwestern Association of Forensic Scientists (SWAFS) in San Antonio, Texas on November 5-8, 2001. Current workshops include: The Role of The Forensic Scientist in Criminal Investigations, Peter De Forest; Bloodstain Pattern Analysis and Reconstruction, Tom Bevel; Digital Imaging and Photography, FBI; Booby Trap Detection and Basic Explosives Recognition, Jamie Crippin; Basic STR Analysis and Equipment, Applied Biosystems; The Use of Fluorescein Testing, Pam McInnis and David Rossi; Clandestine Laboratories Investigation, DEA; Forensic Pathology, Vincent DiMaio; Mitochondrial DNA Analysis, Keith McKinney; Legal Issues, US Attorney's Office; Firearms Safety, Ed Love; Forensic Odontology, David Senn; Sexual Assault Nurse Examination; QA/QC in Forensic Sciences, Henry Hollyday.(Workshops and instructors subject to change) Please visit the SWAFS web site at www.swafs.org for registration information and workshop descriptions.

Jobs • Meetings • Courses

DNA Lab Director Sought

The Kern County district Attorney's Office Forensic Science Division has openings for DNA Lab Director for the Paternity Program and DNA Technical Leader for the Forensic DNA Program. These are new positions and salaries have yet to be established. Please contact: Vernon Kyle, Chief Criminalist, Kern County District Attorney's Office, Forensic Science Division, 1300 18th Street, 4th Floor, Bakersfield, CA 93301. Phone: (661) 868-5367 FAX: (661) 868-5675 e-mail: vKyle@co.kern.ca.us

DNA Technical Leader:

(Position open until filled.)

Duties: Oversees the technical aspects of the DNA laboratory and has the responsibility to suspend analysis when problems are discovered. Maintains safety and quality control in the laboratory. Screens evidence to locate and identify body fluid and tissue stains. Extracts, quantitates, and profiles DNA using sophisticated laboratory techniques and instrumentation. Trains individuals in the proper methods of collecting evidence for DNA analysis; trains individuals as to the importance and relevance of DNA evidence in the solving of crimes. Provides expert court testimony relating to results of analyses and graphic illustrations for court use. Reviews the work of others for technical correctness and completeness.

REQUIREMENTS

Considerable experience in DNA analysis including considerable knowledge of advanced laboratory techniques and instrumentation; a minimum of three years of forensic DNA laboratory experience. Minimum of a Master's Degree in biology, chemistry or forensic science and to have successfully completed a minimum of 12 semester hours of a combination of undergraduate and graduate course work covering the subject areas of biochemistry, genetics, molecular biology or other subjects which provide a basic understanding of the foundation of forensic DNA analysis as well as statistics and population genetics as it applies to forensic DNA analysis. Considerable

knowledge of: PCR, STRs, capillary electrophoresis and use of computer programs to run instrumentation and capture and analyze data. Statistics as related to DNA analysis of forensic samples. DAB and ASCLD regulations and how to implement them in the laboratory. Laboratory safety and quality control procedures. CODIS training course completion and ability to successfully enter and retrieve profile data. Excellent problem solving skills to troubleshoot technical problems; knowledge of computer operations. Salary: Negotiable (based on training, education, and forensic experience). CONTACT: Jane Burton, Chief Criminalist, Charlotte-Mecklenburg Police Department Crime Laboratory, 601 E. Trade Street, Charlotte, NC 28202. Phone (704)-353-1101 Fax

Veridian Information Solutions Has Forensic Openings

Forensic examiner (2 Positions) Baltimore, MD. Recover, preserve, and analyze digital evidence using standard computer forensic and evidence handling techniques. Three+ years computer forensics media analysis or network intrusion analysis experience. Clearance required. BS in CS or prior law enforcement experience.

Forensic Instructor /Examiner

Oakton, VA Requisition 411-01-OAK-006 Position: Design, develop and instruct technical training for computer forensics. Serve as the lead developer and instructor for Linux forensics and as backup developer and instructor for other computer forensics training to include Macintosh forensics, incident response & evidence preservation and basic computer forensic examination. When not involved in course development or instruction job duties will include computer forensic skills training & support of the Veridian Digital Forensics Center as a forensic examiner. Required: 1-2 years Linux OS experience, 1-2 years basic computer forensic examination experience, demonstrated proficiency in technical classroom teaching, PC hardware knowledge, good command of the English language (spoken and written), ability to attain a TS clearance. Desired: Red Hat Certified Engineer, A+ Certified, IACIS Certified Forensic Computer Examiner, teaching certificate, instructional systems design experience, Toastmasters trained, Linux computer forensics experience, computer crime investigations experience, TS clearance, Macintosh experience. Contact: Vina Shore Recruiter Veridian Information Solutions Information & Infrastructure Protection Sector 6066 Leesburg Pike, Suite 400 Falls Church, Virginia 22041 703-845-7112 Direct Dial 703-845-7150 Confidential Fax vina.shore@veridian.com www.veridian.com



Friendly Audit

Members of the Financial Review Committee (l-r) Jim White, Pete Barnett and John Houde (not pictured) meet with CAC Treasurer Michelle Fox to go over last year's expenditures.

Adapted from the Membership Secretary's E-News

After many years with CCI, John Bowden recently retired. He writes: "I started work with the State of California in June of 1962 as a Junior Chemist. From April 1969 until my retirement last October, I was employed by the Department of Justice, the first four years as a Drug Abuse Chemist, then the rest at various levels of Criminalist. I joined CCI in November 1987.

For the most part I am enjoying my retirement with a lot of work around the house and bit of travel. I have planned a week-long trip to the Smithsonian next month.

I have done some occasional consulting and I intend to stay active in several forensic associations. I hope to make it to the CAC Fall seminar. I am still taking some classes at CSUS and recently signed up for a weight training/fitness class at the local community college. I had to drop out last semester due to minor surgery.

My phone number is (916) 361-8786, FAX (916) 362-5345. I just got a new e-mail address, jbowden45@home.net, but this one should be good for quite some time yet."

Your CAC Study Group Chairs are:

NORTHERN REGION

Quality Assurance Study Group Chair-North

Tom Abercrombie (916) 227-3635 tom.abercrombie@doj.ca.gov

Drug Study Group Co-Chair-North

Jean Arase (408) 299-2224 jarase@crime.lab.co.santa-clara.ca.us

Forensic Biology Study Group Co-Chair-North

Lisa Calandro (510) 887-8828 lmc@forensica.com

Forensic Biology Study Group Co-Chair-North

Jennifer S. Mihalovich (510) 238-3386 js_mihalovich@oaklandnet.com

Drug Study Group Co-Chair-North

Cara Gomes (707) 576-2415 cara.gomes@doj.ca.gov

Trace Study Group Chair-North

Pamela Hofsass (415) 671-3247 phofsass@aol.com

Firearms Study Group Chair-North

Bruce Moran (916) 874-9240 jb4nsic@jps.net

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Quality Assurance Study Group Chair-South

John Simms (619) 531-2577 vis@pd.sannet.gov

Arson Study Group Chair-South

Collin Yamauchi (213) 847-0052 c_yamauchi@yahoo.com

Ecoutez!

Are you fluent in more than one language? Are you willing to assist other CAC members needing assistance translating papers, journal articles, etc.? If so, Please contact the Membership Secretary, gracias.

CAC Superstore

Curtis Smith is working on new products: CAC polo shirts and CAC baseball cap with an embroidered CAC emblem. Also available are CAC retractable badge holders. \$3.00. Great for easy access to security/locked doors and great ergonomics for laboratory staff. CAC mugs are still available. Please establish a liason in your laboratory or office and place your orders. This will prevent Curtis from completing several transactions.

Elevate Yourself

Oct. 5, 2001 is the deadline for submitting membership upgrade requests by provisional or corresponding members for consideration at the Oct. 9, 2001 Board of Directors Meeting. Applications for membership and a copy of the Membership Handbook are posted on the CAC website. Please forward all requests to the Membership Secretary.

Gainful Employment

DNA Analyst

The Los Angeles County Sheriff's Department is soliciting an interest list for one or more anticipated vacancies in the Biology Section of the laboratory. Qualified applicants should have a minimum of two years of forensic laboratory experience, meet the FBI DNA Quality Assurance Audit Document requirements for a DNA examiner/analyst, and be qualified to conduct independent casework using multiplex STR-DNA typing methods. The position offered will be at the Senior Criminalist level, with a current salary range of \$4784.25 to \$6275.04 monthly (\$57,411 to \$75,300 annually) and a comprehensive benefits package. For more information or to be placed on the interest list, please contact Crime Lab Assistant Director Dean Gialamas at (213) 989-5003 or dmngialam@lasd.org

The Membership Update is sent to each CAC member who has provided an email address. Submit items for the Membership E-News Update to elissa.mayo@doj.ca.gov.

Thinking Is Allowed!

Edinburgh borders the blustery North Sea. It is the home of King Arthur, Robert Louis Stevenson, and Arthur Conan Doyle. The Scottish capital is also home to a little known world-class laboratory where forensic scientists possess an upbeat attitude and are highly motivated and well-trained. The most memorable aspect of my British forensic education was the three months I spent at the Lothian & Borders Police Forensic Science Laboratory (the L & B lab) while researching and writing my MSc thesis.

What distinguishes the L & B laboratory from many laboratories is that the scientists working there are encouraged to think independently. As Keith Inman and Norah Rudin emphasize in their book *Principles of Criminalistics*, **Thinking is Allowed!** Unlike many American and British forensic laboratories, narrow-scoped, volume training is minimized at this lab. Instead, scientists are encouraged to indulge their scientific and professional interests through cross training in a variety of forensic disciplines. For example, drug chemists are also encouraged to train in arson investigation as well as glass analysis. Similarly, biologists are trained to attend crime scenes, analyze bloodstain patterns, and search clothing and footwear for body fluids and fibers before extracting DNA for a 377 run.

In order to work at this laboratory, the director, Dr. Allan Jamieson (known as 'AJ' to the staff) is not necessarily looking for lofty academic credentials or applicants who embrace mainstream forensic dogma. Instead, priority is given to individuals who can bring new ideas to the lab. Challenging established forensic protocol or articulating fresh concepts are sure to get you a second interview from AJ. Innovative thinking and curious minds are rewarded.

What impressed me most about the L & B laboratory is that each of the forty scientists working there had only good things to say about the management team. Staff members understood what they were expected to do and were provided with the training to do it. Scientists felt

valued and recognized, creating a motivated atmosphere to churn out casework. Employees often said the key to this productive process was the management's attitude. Allan Jamieson himself, told me to: "always remember

that the management team is there for the employees. The employees are not there for the management team." This novel concept attracts and retains quality employees.

My objective in going to the UK to earn my MSc in Forensic Science, was to take advantage of a learning opportunity in a field that I love. As it turned out, the rewards were far greater than I expected. My entire life has become enriched after living for a year in a different culture. From a scientific standpoint, I have an increased awareness of how other forensic scientists think and operate productively within our field. The clock of life is wound only once; don't waste time. Follow your dreams, your passions, and your heart.

I want to thank those of you who contacted me over the last year regarding the Strathclyde and King's College forensic programs. I hope my advice was helpful. After a short adjustment period, I have returned to the DNA lab in Berkeley. I am delighted to be back and look forward to contributing my improved knowledge, skills, and abilities to the criminal justice system in California.

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IN A VARIETY OF
FORENSIC DISCIPLINES

Dianne Burns is currently on a lab placement at the Edinburgh Police Forensic Crime Laboratory in Scotland as part of her MSc program with King's College of London. She can be reached at diane.burns@kcl.ac.uk



On Being "Green"

The Workplace Battlefield of Envy and Arrogance

It is a natural part of being human to want what we do not have. From childhood through our adult years, we feel the urges and frustrations brought on by desire and envy. We see our friend with a new toy and we want it. We might try bugging mom and dad until they either buy it or we give up and go on to the next object of envy. This is being human.

We never outgrow envy. As adults, envy becomes more sophisticated and more refined, but it is still basically the same. There is a name for the grown-up version of envy: it is called "keeping up with the Joneses." The neighbor has a new car in the driveway, a new pool in the backyard, or new furniture. Envy speaks to us with soft but persistent words, "I want it." Some of us learn, for the most part, to ignore it. Some of us can afford to indulge in the expense. Others can neither control the envy nor possess the wealth to satisfy it. This is where dissatisfaction can take root.

Envy in the Workplace

Envy is always present in the workplace. Instead of keeping up with the Joneses, in the workplace it is keeping up with our colleagues down the hall. Someone gets a new office. One of the lab units gets new equipment. Another unit gets more space. Envy surfaces and soon everyone is whispering or complaining that they did not get theirs.

The Politics of a Generalist vs. a Specialist

Never has envy been more prevalent than today. Think back to the days of the generalist when a new instrument was not for a particular unit but for a particular discipline. Perhaps everyone in the lab was trained in that discipline so the new equipment benefited almost everyone. Budget competition was somewhat generic and more focused on group needs. Times have changed and specialization has drawn more and more boundary lines. Each unit has become a kingdom unto itself and budget competition has grown fierce. It used to be important to establish group needs. It is now clearly an "us" vs. "them" mentality.

It does not stop there. Envy has been further aggravated by the advent of DNA. DNA technology is not cheap and it is extremely glamorous, garnering agency, media, and legislative attention. Agency funds are being portioned off with huge budgetary chunks dedicated to DNA start-up programs that include equipment, staff, supplies, remodeling, etc. Envy found companionship in all those watching from the sidelines. We all hear the whispers in the corridor, "DNA is getting everything. DNA is the golden child."

It is important to remember that this is nothing new. Historically, any new technological advance has been labeled glamorous, has had the spotlight of news cameras thrown on it, and has had money thrown at it from agency or legislative funding.

Arrogance Joins the Battle

DNA is almost constantly in the spotlight these days. Every day we hear news about innocent people being released from prison based on DNA tests. CODIS is now identifying suspects in cold cases, literally solving murders and rapes. News stations want to film in the lab. Newspapers want interviews. Radio programs want guests. The ego can easily get caught up in the limelight, creating a sense that DNA is more important than the handwriting case in Documents, or the fiber case being processed in Trace. Once that sense of self-importance causes an analyst to feel his or her role is more important than the role of analysts in other disciplines, ego has become distorted into arrogance.

How Do We Deal With Envy and Arrogance?

When envy and arrogance become disruptive or negative, a laboratory has a responsibility to deal with them wherever they appear in the lab structure. We have both a personal and professional responsibility to deal with them when they appear within ourselves. Here are some ideas that could help diminish the envy/arrogance syndrome in the general workplace:

For the Analysts: put growth and headlines into proper context. Everyone gets 15 minutes of fame, and for some, it may be longer. Fame and resources neither lessen nor increase the importance of anyone's work. Justify your budgetary needs and realize that at times you will gain and at times you will not. Priorities shift and you have to keep trying.

For Management: Management must prioritize the budget/resource decisions in the following order:

- What is good for the lab,
- What is good for the unit, and
- What is good for the individual.

Strive for fairness. The little fiscal wealth that there is needs to be shared. Priorities should be established as a team process so that the ultimate budget picture is one of consensus. It is management that must decide who gets what (even if that is nothing) in any budget cycle. These decisions are based on input contributed from the bench level.

For Both Analysts and Management: Everyone must realize that sometimes decisions are based on forces from outside the laboratory. Political maneuvering becomes an unanticipated player and establishes unexpected mandates that have to be implemented.



John Simms

CAC Editorial Secretary

Legislative Relief Also Helps

Legislative funding of DNA programs helps to reduce the fierce budget competition. It does tend to aggravate our envy when DNA wonders how it can possibly spend all the money it has received through various sources. Almost always, these funds are earmarked and the rest of the laboratory sections cannot take advantage of any remaining funds.

What do we do?

The proverbial wheels of justice need to turn and no one individual unit has a monopoly on that role. While DNA criminalists today may be stepping before the cameras, AFIS hits are solving hundreds more cases without fanfare and latent print examiners have been doing this for years. Narcotics cases are being processed that will keep suspects in jail. Alcohol analysts are under siege in court on DUI cases that are being fought harder than most homicide cases. The firearms unit is wrapping up a report that will link a gun taken from a suspect to a gang shooting. The list goes on and on. Everyone is doing their part to support the needs of the criminal justice system.

It's natural to feel envy. It's natural that it sometimes interferes with our professionalism. We as forensic scientists may also have really big egos. We do have, however, a professional responsibility to prevent envy from being a destructive or counterproductive force. We also must battle our egos to prevent them from swelling into arrogance. When fame hits, when resources are dropped into our laps, or new technology is unveiled, we should relish these events not only as victories for the laboratory, but more importantly, as victories for the criminal justice system.

Envy and arrogance are part of who we are, but they should never be all that we are.

John

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Book Review

The Art of the Science

This work is not a practical text on how to conduct specific tasks in the practice of the Forensic Science profession, but rather a foundational walk through the very basis for why the discipline stands apart from traditional science. It is, to date, the most thorough discussion of "big picture" thinking conducted in the profession of forensic science. It has great value on two levels:

On one level, it provides essential reading for study by students wishing to pursue a career in the forensic science field or scientists outside of the forensic arena wishing to shift to the practice of criminalistics. It lays out a boiler plate of well developed considerations essential to the forensic approach to problem solving from a scientific point of view in the judicial system. This text would be ideal for preparing the student's foundational "mindset" of an effective forensic scientist.

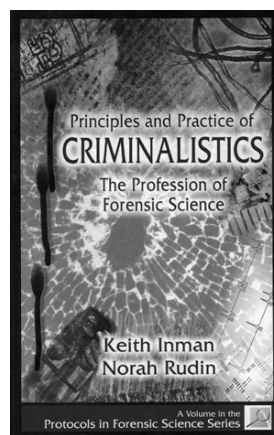
On a second, and more significant level, this reference acts as an excellent review of the practice of criminalistics that only the experienced forensic science practitioner will benefit from being taken through a series of mental gymnastics in dissecting, and therefore more thoroughly understanding, their own practice. The authors have managed to capture under one cover a comprehensive review and thoughtful study of what the practicing criminalist must consider when conducting all aspects of casework. It better prepares the practicing criminalist for facing the current Daubert issues challenging the profession and in assisting them to better understand what it is we are doing. The forensic scientist, therefore, becomes more effective in expressing the underpinnings of our discipline in a court of law.

I found myself nodding in agreement with the authors on many of the issues brought forth in the text. It is indeed thought provoking for both the non-forensic scientist looking in, as well as the forensic science practitioner looking out.

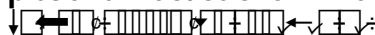
Bruce Moran

Sacramento County District Attorney

Laboratory of Forensic Services



Principles and Practice of Criminalistics



By **Keith Inman** and **Norah Rudin**

ISBN 0849381274, CRC Press 2001, \$69.95

F E E D B A C K

The CACNews prints letters to the editor that are of interest to its readers. We reserve the right to edit letters for brevity and clarity. All submissions to this page become the property of the CACNews.

Sisters Remember Tony Longhetti



I was speaking with my sister, Michelle, and she told me that you were putting together some memories of Prof. Longhetti. While I was never a student of his, I did have the opportunity to meet him when I visited Los Angeles.

The first time I met him, I was visiting my sister at Cal State and was invited to sit in on a couple of her classes (to get an idea of what she was taking). Prof. Longhetti made me feel like one of his other students, though it was obvious I knew nothing of what they were discussing (hey, I'm in sales, not science!). He allowed me to be Michelle's lab partner as she and I completed a lab on toolmarks. Imagine his disappointment when I couldn't tell the difference between the marks. I also remember his reaction when he found out the other experiment I got to participate in. This visit occurred in November 1997 and California was experiencing an extreme heat wave. I arrived and was asked to help my sister complete an assignment involving tire tracks (and, though I found it odd at the time, she remarked how glad she was that I had rented a "smallish" car!!). Excited to be of some help, I eagerly said yes. That Sunday, we arrived at the school parking lot with bristol board in hand, ready to work on the tire tracks. Then, I found out that my help was to be used in manual labour - I was to PUSH the car over the board so she could get the imprint!! When I told Prof. Longhetti this story, he laughed and laughed! As I helped on the project, he let me put my name on the assignment too - needless to say, we got an "A!"

The last time I saw him was at my sister's graduation in June 1998 with my parents. He was so proud and happy to see us, we all felt like family. He will always be special to me because of the kindness he showed my sister—he will not be forgotten.

—Annette Boileau

One of my fondest memories of Professor Anthony Longhetti was after my graduation in 1998. He was leaving the ceremony carrying a large bouquet of balloons to give to his grandchildren, and all that could be seen above the hedge was his head and these balloons. Seeing him walking away, smiling, and carrying this oversized bouquet is how I'll remember him—as a fun-loving, caring human being. But he was much more than that.

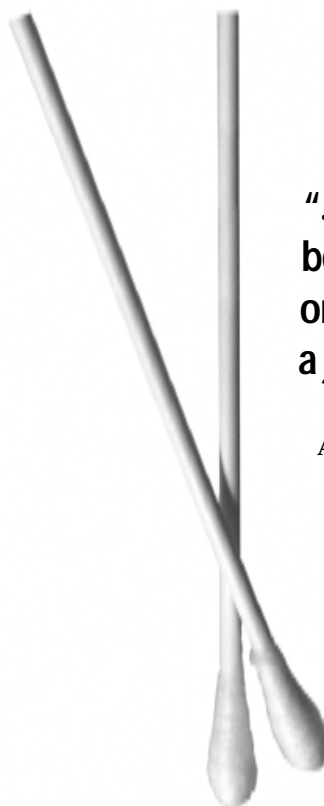
Professor Longhetti was an extraordinary teacher as well. He was devoted to his field and was able to pass on his enthusiasm and knowledge to all of his students. In my two years at CSULA, I learned a lot from Professor Longhetti, not just the academics behind the theories, but much more, including how to be an effective, compassionate and professional human being and criminalist. He was an extremely devoted professor, helping his students both inside the classroom as well as outside. He was always happy to see you, and was interested in what you were doing. And in return, I doubt there were too many people who could refuse him when he asked a favor of you. I know I couldn't, which was why I ended up cutting out 150 paper leaves for him one evening.

I am extremely grateful to have had the chance to know and learn from Professor Longhetti, and I know that I will take everything I learned from him with me into the future.

—Michelle Boileau

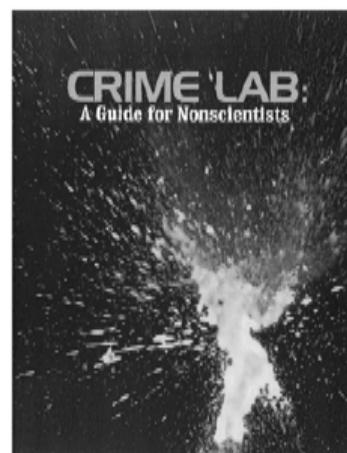
"...reminds the reader of the importance of thinking outside your immediate area of expertise..."

—Science & Justice



"... this is the best book I've ever seen on criminalistics. It is a joy to read . . ."

—Dr. Walter C. McCrone
Author, Judgement Day for the
Turin Shroud



amazon.com



see the reviews at www.calicopress.com

We would first of all like to thank John Simms for giving us the opportunity to try this column. For many years now, we have been meeting for lunch to discuss various aspects of forensic science and criminalistics. Two published books have resulted from these discussions, but not all of the ideas are refined enough for that venue or appropriate for a book. We have always jokingly referred to our mental detritus as *The Proceedings of Lunch*. We plan to share some of these evolving (read that half-baked) ideas with the forensic community in a more informal way in what we hope will be a regular *CACNews* column.

We read, with interest, Morris Grodsky's piece, *Contemplation on a Platter*.¹ Physical match evidence represents the most extreme example of opinion evidence; the stated criterion for that opinion has essentially been common sense. But, Morris cogently asks, can you tell us the science upon which that opinion is based? A seemingly innocent question from a student about physical match evidence in the very first *Survey of Forensic Science* class we taught for The Univ. of Calif. at Berkeley Extension left us stupidly strumming our lips with our fingers. We had just finished grandly informing the class that the principle of transfer, attributed to Edmond Locard, formed the basis of modern day forensic science practice. How, the student wanted to know, did the concept of transfer apply to the two pieces of torn paper that she was attempting to compare? Recall the strumming lips image. By the next morning Keith had come up with the concept of *Divisible Matter* to describe the seemingly obvious yet previously unarticulated principle we rely upon to make physical matches.

Matter divides into smaller component parts when sufficient force is applied. The component parts will acquire characteristics created by the process of division itself and retain physico-chemical properties of the larger piece.

The principle of divisible matter leads directly to three corollaries with important consequences.

Corollary 1: *Some characteristics retained by the smaller pieces are unique to the original item or to the division process. These traits are useful for individualizing all pieces to the original item.*

Corollary 2: *Some characteristics retained by the smaller pieces are common to the original item as well as to other items of similar*

manufacture. We rely on these traits to classify the item.

Corollary 3: *Some characteristics from the original item will be lost or changed during or after the moment of division and subsequent dispersal; this confounds the attempt to infer a common source.*

We first presented these ideas to the CAC at the 1999 Oakland meeting², and subsequently codified them in our most recent book, *Principles and Practice of Criminalistics: The Profession of Forensic Science*.³ We wondered if the principle of divisible matter could address the questions raised by Morris Grodsky. Because Pete Barnett had already expressed an interest in discussing divisible matter with us, we invited him to lunch. Pete accepted, but with some understandable trepidation. The last time we bought him a hamburger, he ended up writing a book for our *Protocols in Forensic Science* series for CRC Press.⁴ He wisely chose the fish and chips this time. After having received our salads, and having ordered this week's "Brewer's Handle" as a neuronal lubricant, it was time to tackle the hard questions.

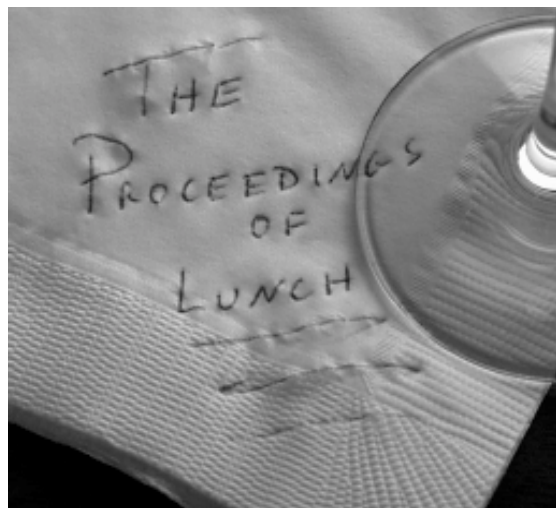
Pete's first question to us was, what makes divisible matter a principle? This is not a simple question to answer, nor was the decision to make that categorization. For over a century, the concept of transfer (which Locard never uttered as such, but which his writings support),⁵ has been accepted as a principle. Further, it has been accepted as axiomatic; it has never been tested in any rigorous way and it may not be possible to disprove it through traditional scientific testing. As it stands now, the principle of divisible matter seems to fall into the same category. We rely on it as an axiomatic truth. Pete is still not necessarily convinced that divisible matter is a principle, or that it holds its own as separate and distinct from Locard, but he is willing to accept it as a premise as we proceed to a more practical discussion of physical match evidence.

We start with the first question posed by Morris: what scientific procedures did you follow to lead you to this conclusion of individuality? The first thing we talk about is whether this is the right question. Also attributable to Keith is the mantra:

**You won't get the right answer
if you don't ask the right question,
no matter how brilliant your analysis.**

You will hear many more Keith-isms in future columns. To emphasize the intellectual process of performing a comparison, Norah suggests a restatement of the question as, "what criteria did you use to form the opinion of common source?" While the obvious form for "criteria" to take is numerical, numerical parameters are rarely employed in the examination of comparison evidence in criminalistics.⁶ We ask Pete to state the criteria he uses to form an opinion about physical match evidence. "If I put the two pieces back together and if they don't wiggle, I conclude they were once attached," says the pragmatist. Keith points out, however, that Pete may be selling himself short. Because of his education, training, and experience, he probably uses additional specific criteria to form such a conclusion, but he has never been forced to articulate them.

This leads into a conversation about what kind of criteria might be used. We discuss the idea that the criminalist must be aware of the scale of the evidence and use an appropriate scale of detection. Any fracture boundary, examined at suffi-



Pete's first question to us was, what makes divisible matter a principle? This is not a simple question to answer...

cient magnification, will show discrepancies. How do we know when these discrepancies are explainable and can be ignored for the purpose of forming a conclusion or when they are unexplainable, and must exclude a common source for the two items? We all agree that the key to any forensic examination is an understanding of the nature of the evidence. This is particularly true of physical match evidence because an examination of the material is all that exists.

We discuss how the nature of several different types of material might affect our ability to form a conclusion from an examination of the boundaries of two items. Like the plate that fueled Morris' initial inquiry, we are instinctively comfortable forming such conclusions from hard, structured materials such as glass or pottery (see corollary 1). We count on such material to break in a relatively predictable matter, and the edges of the fracture boundary to retain their characteristics with some fidelity. Crystalline materials are an extreme example of this because their fracture boundaries are the most predictable and they resist modification after division. Such materials also have thickness, thus allowing for examination of a second dimension of the boundary detail (as exemplified in the photo of Morris's plate). Materials such as paper or cardboard, which are often fibrous, divide with less predictability. The edge fibers may be deformed during the division process and are also more easily degraded afterward. Only a single dimension may practically be examined. Do these material attributes weaken a conclusion of common source for two pieces of paper? For an example sure to confound even experienced experts, see pages 88 and 134 of *Criminalistics*. Pete suggests the example of toast. The nature of the material is extremely friable (hence the crumbs), and relatively large gaps (to continue the food analogy, the Swiss cheese effect) may exist between the points being compared. Does the lack of information in the gap areas weaken a conclusion of common source for two pieces of toast? How long does the original fracture pattern retain the complementary characteristics of the edges (see corollary 3)? Norah suggests that an even more extreme example is found in elastic materials like chewing gum (we can't seem to get away from the food analogies). Because the edges produced are so malleable, pulling apart a well-chewed piece of gum would virtually never produce edges that were worthy of comparison. With such material, virtually all attempts at comparison would be inconclusive.

We next tackle the question of whether any studies with broken dishes have been carried out. We don't know of any in particular, but the analyst could certainly perform such a study. We wonder, however, exactly what hypothesis would be tested in such a study. For instance, what would dropping and breaking every plate in this restaurant tell us? Would we look to see if a false match could be obtained between two pieces not originally from the same plate? Or would we be more concerned about the kinds of boundaries that were produced and what potentially individualizing characteristics they might have. Both kinds of information might be useful. As we pondered the random nature of the event, however, we wondered just how many plates we would have to break to give us any kind of reliable information, or if this experiment would ever give us any relevant information. In breaking many plates, we are essentially constructing a database. Databases are most useful when the data points are well defined, the population from which the data are taken is relatively stable, and the database samples are likely to represent the evidence fairly well. The

stereotypical example of such a database is that used for forensic DNA analysis. Another example would be of the characteristics used to classify firearms and ammunition. Databases of paint, particles, and fibers find their limits in their deviation from the aforementioned criteria. How does one make, maintain, and use a database of the boundaries of broken plates?

This leads us into the question of mathematical probability. As stated, Morris' question reads, "what is the mathematical probability that the two fragments would fit together with such precision?" While we quickly agree that the answer to this question is no, we quickly digress to a discussion of mathematical modeling as a tool to predict the general (class?) characteristics of the fracture patterns for different materials. Is physical match evidence really a study of material science? Could mathematical models that incorporate factors such as molecular interactions and direction of force provide a more rigorous scientific underpinning for opinions regarding physical matches?

Reality intrudes at this point and we all realize that we had better go do some real work. As usual, we leave with more questions than answers (sorry Morris), but we agree that the discussion has been worthwhile. As we are walking out, we spy Charles Brenner and George Sensebaugh at another table and make our way over to say hello. Clearly Pyramid Brewery is a hotbed of intellectual debate and academic discourse.

We invite further commentary on any of these ideas.

¹ Grodsky, Morris, "Contemplation on a Platter", The CACNews, 3rd Quarter, 2001, pg. 19.

² Rudin, Norah and Inman, Keith. *The Origin of Evidence*. CAC meeting, Oakland, CA. 1999.

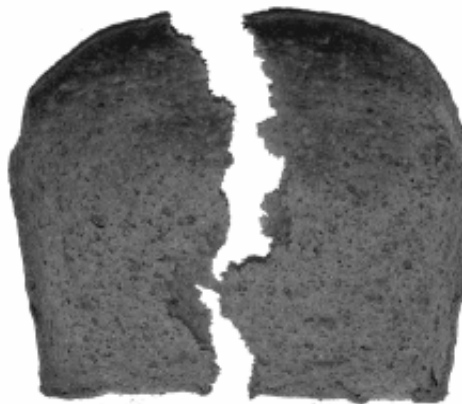
³ Inman, Keith and Rudin, Norah, *Principles and Practice of Criminalistics: The Profession of Forensic Science*, CRC Press, 2001.

⁴ Barnett, Peter, *Ethics in Forensic Science, Professional Standards for the Practice of Criminalistics*, CRC Press, 2001.

⁵ Locard Edmond, *L'Enquête criminelle et les Methods scientifiques*, Flammarion, Paris, 1920.

⁶ Houck, Max, Statistics and Trace Evidence: The Tyranny of Numbers, Forensic Science Communications, Federal Bureau of Investigation, Virginia 1(3), 1999b. <http://www.fbi.gov/programs/lab/fsc/current/houck.htm>

⁷ Keith and Norah, at least, feel compelled to point out that this is a transposed conditional. At a minimum, the question should be transposed to read, given the precision of the fit, what is the probability that these two pieces came from the same dish as compared to the probability that they came from different dishes. Because this was not discussed during lunch (OK, so we can think when we aren't eating also), Pete did not have a fair chance to comment on this.



Quality Assured

—Jack Wallace

On Signing Blank Checks

“So the king took his signet ring and gave it to Haman, who issued orders to the king’s satraps, the governors, and the nobles. . . in the name of King Xerxes himself and sealed with his own ring.”

—Ester 3:10 -12, recording events occurring approximately 460 BC

Government agencies, or for that matter private citizens, have long struggled with methods for authenticating important documents—to show, for instance, that a manuscript received at a distant province was indeed the king’s decree, or that markings on a clay tablet did in fact represent a valid conveyance of property. Of course, these days signet rings are a rarity, having been replaced with the more common handwritten signature. Forensic and other analytical laboratories have historically followed this pattern by signing, or at least initialing, reports and their supporting documentation.

This approach works well enough for printed documents, but with the current trend towards electronic record keeping, laboratories are facing another problem: how does one sign a report that is never reduced to paper? As QA managers, what minimum criteria should we expect? This is a difficult question and certainly not one that can be answered completely in this space. Indeed, I urge any laboratories converting to electronic record keeping to seek legal and technical counsel. I propose that we can agree to certain general guidelines by considering those elements of handwritten signature that must apply equally well to the electronic version.

The first element is that documents are signed only after they are complete. (After all, who would sign a blank check?) This means that documents can only be “signed” at the end of a work session, that it must be explicitly clear what is being signed for, and that even the most sophisticated log-on procedure cannot substitute for a post facto signature. This is especially true in view of the common and nearly essential practice of sharing open computers among a large staff.

Second, signatures must be unique to an individual. This requirement clearly excludes the use of examiner’s initials or usernames, which are typically widely known within a laboratory. It would seem that with proper controls, a personal identification number (PIN) would suffice for this purpose, at least for internal use. But this is an issue to be resolved with your computer experts. Also under consideration are more sophisticated approaches using thumb print readers or signature recorders such as those used by some department stores.

Third, documents must be unchangeable once a signature is applied. This is the reason handwritten checks mar easily when erased, and why wills or contracts are carefully protected. Similar protections must be built into electronic records.

I propose that these three elements—post facto application, uniqueness, and immutability—are as essential to an electronic signature as they are to a hardcopy version. I also propose (and I would like to hear your opinions) that these elements are sufficient for in-house record keeping. However, for reports transmitted outside the laboratory system, a fourth element is needed, which we might call “credibility.” In particular, just as for a handwritten signature, an electronic signature must somehow convey to the client that the first three elements are realized. This is by far the most challenging element and is currently an area of active discussion and development. Until this issue is resolved, laboratories employing electronic signa-

...SIGNATURES MUST BE UNIQUE TO AN INDIVIDUAL. THIS REQUIREMENT CLEARLY EXCLUDES THE USE OF EXAMINER’S INITIALS OR USERNAMES, WHICH ARE TYPICALLY WIDELY KNOWN WITHIN A LABORATORY.

tures will need to provide another means, such as a statement from a custodian of records, to assure clients that their electronic records are indeed authentic.

Of course, we cannot expect that electronic record keeping will entirely eliminate problems with authentication. Appropriate organizational support will continue to be essential. But when we consider the problems inherent in hardcopy records, such as incomplete discovery or the premature disposal of records due to lack of storage space, I suggest that we should be cautiously optimistic regarding the trend towards electronic documentation. Finally, we might consider again poor Haman, who was eventually hanged for misusing the king’s signet ring, and realize that protecting documentation has a long historical context.

CAC Historical Tidbits

NEW — NEW — NEW !!!

Hello from the Historical Committee chair! I have decided to share the enjoyment that I receive through pouring over our precious CAC archives with you, the entire CAC membership. While combing through the archives last month, I discovered old meeting abstracts. The concepts expressed below are of particular interest to me, and have remained concerns within our profession to this very day. ENJOY!!

Concerns from our past remain concerns of our present and will continue as concerns of our future...

Thoughts from Paul Kirk...

CAC Spring Seminar, 1961, at the Apple Valley Inn, San Bernardino

"Where is Criminalistics Going?"

"Dr. Kirk is concerned with the problem of obtaining students to take the curriculum of the School of Criminology (Criminalistics Division), especially now when many new positions are opening and granting of a Ph.D. looms around the corner. He is not satisfied with the converting of chemists to criminalists but wants the criminalist to be trained thoroughly in the field of criminalistics."

"Possible solutions to the problem were suggested: professionalization, contacting high school students, a journal for the Association—all of which would attract more people to the field, it was felt.

A monograph on what a criminalist is, what he does, and how he is educated and trained was suggested for high school distribution."

Thoughts from Edward F. Rhodes...

CAC Fall Seminar, 1988, Costa Mesa

"CAC's Role in Encouraging Professionalism and Professional Management: Past, Present and Future"

"Professions are generally characterized as occupations requiring advanced education, collegial standards and controls, high ethical standards, service to society and a high degree of individual autonomy. All these requirements are found in criminalistics, but not in all laboratories or in all criminalists. Professional forensic organizations, such as the CAC, can play an important role in encouraging these elements for all laboratories and their staff."

Thoughts from Jack Cadman...

CAC Fall Seminar, 1988, Costa Mesa

"Professionalism: The Challenge to Forensic Science Education"

"Fewer forensic science education programs and more non-forensic graduates working in crime laboratories threaten to dilute the criminalistics professionalism. On-the-job training of these individuals focuses on the rapid acquisition of technical skills and ignores whole areas of criminal justice philosophy and practice and professional criminalistic ethics, attitudes and perspective. There is an increasing need for forensic science education to not only address these topics in their curricula, but to also find ways of reaching out to the non-forensic science graduates in crime labs. Certification should require professional and technical knowledge for a general criminalist and also participation in continuing education, an important future role for our schools.

However, our forensic science programs are struggling not to fall farther back amid worsening budget constraints. Or professional associations and institutes need to find ways of supporting forensic science education.

No profession exists without having at its core a strong education program. This must become a reality if criminalistics is to be a profession. The question must not remain 'IF', it must be 'HOW'."

2000 Year End Summary

A. Reed & Virginia McLaughlin Endowment Fund

Paine Webber Business Services Account

<u>Activity Highlights</u>	<u>Year to Date</u>
Deposits	15,963.67
Money Fund Checks Paid	-54,891.98
Business Services Account Fee	-125.00
Net Change	-39,053.31

<u>Earnings Summary</u>	<u>Paid in 2000</u>
Money Fund Dividends	2,376.42
Other Dividends	36,812.07
Interest	12,225.03
Less Non-municipal Accrued Interest Pd.	-665.00
Other	73,472.67
Total Year 2000 Security Earnings	124,221.19
Prior Year's Entries and Adjustments	78.98
Net Security Earnings	124,300.17

<u>Portfolio Summary</u>	<u>Year to Date</u>
Opening Value	1,402,624.20
Net Change From Activity Highlights	-39,053.31
Net Security Earnings	124,300.17
Change in Value of Investments	-257,328.55
Value on Dec. 29, 2000	1,230,542.51

Fiscal Year End Summary (July 1, 2000 – June 30, 2001)
Ed Rhodes III Endowment Fund

Value 7/1/00	12,964.51
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<u>Checks Paid</u>	
Ed Rhodes Award	-500.00

<u>Donations</u>	
Kristin Radecki	100.00
Greg Matheson	103.00
Anonymous	15,000.00

Change in Value of Investments	-3387.05
Value 6/30/01	24,280.46

*Endowment Fund financial summaries are reported annually. If interim, or more detailed information is desired, please contact the Treasurer at mjf@forensica.com or 510-887-8828.

Financial Report

General Association Account

Fiscal Year Account Balances July 1, 2000 to June 30, 2001

Cash Balance July 1, 2000	\$74,416.94	
INCOME		
Interest - CD	\$2,452.32	
Interest - CD transferred into savings	\$262.44	
Interest - Money Market	\$615.70	
Membership Applications	\$4,885.00	
Membership Dues	\$41,970.00	
Money from Merch Acct	\$1,000.00	
Newsletter Advertising	\$500.00	
Newsletter Subscriptions	\$128.00	
Dinner Meetings Income	\$608.66	
Seminar Profit - Fall 99	\$1,609.72	
Reimbursement Income - Seminar	\$20,105.00	
Total Income	\$74,136.84	\$74,136.84
EXPENSES		
ABC Support	\$500.00	
Awards	\$2,218.12	
Bank Fees	\$1,363.30	
Web Site Consultation	\$4,325.00	
Journal	\$16,083.80	
Meetings	\$34.76	
Postage	\$792.78	
Printing	\$15,343.46	
Misc Refunds	\$241.00	
Misc	\$45.00	
Seminar Various	\$21,637.52	
Supplies	\$144.48	
Taxes/Consult	\$3,437.00	
Travel	\$5,872.93	
Total Expenses	\$72,039.15	\$(72,039.15)
Income Less Expense =	\$2,097.69	
Cash Balance June 30, 2001	\$76,514.63	
Cash On Hand 6/30/01		
Savings	\$15,364.37	
Checking	\$9,197.94	
Combined CD Values	\$42,452.32	
Seminar Checking	\$2,000.00	
Fall '00 Seminar	\$1,500.00	
Spring '01 Seminar	\$4,000.00	
Michelle JoAnne Fox	Fall '01 Seminar	\$2,000.00
CAC-Treasuer	\$76,514.63	

2002 McLaughlin Endowment Funding

CALL FOR PROPOSALS

The A. Reed and Virginia McLaughlin Endowment of the California Association of Criminalists is beginning its eleventh annual cycle of grant funding. During 2001-2002, grants for training, scholarships, special projects, and research totaled close to \$40,000. Applications and requests are now being accepted for 2002-03 funding.

The Training and Resources Committee Chair must receive applications for 2002-2003 training funds by **Friday, January 18, 2002**. (See Section I below for specific application information.)

The Endowment Committee Chair must receive requests for all scholarships or research funds by **Friday, March 22, 2002** for consideration. (See Sections II & III below for specific information.)

Specific Requirements for Proposals

I. Training

A. General

Requests to sponsor training must be submitted earlier than other requests so that the Training and Resources Committee can review them and coordinate with other CAC training efforts. The T&R Committee shall prioritize these requests where necessary and shall consider how the requested training fits into the overall training needs/desires of CAC members. The T&R Committee shall forward ALL requests to sponsor training, together with their recommendations to the Endowment Committee for their consideration.

B. Request Format

The two-page Application for Training Funding (enclosed) should be completed. This application requests the following:

1. Class title, outline, and description of ownership (public or privately owned).
2. Information (curriculum vitae) on instructors.
3. Class logistics: minimum and maximum size, limitations, and location.

4. Class coordinator/contact person.
5. Student interest/demand supported by T & R Survey and/or the number of applications on file.
6. Course budget including supplies, texts or handouts, instructor fees, travel/per diem, and site costs. Amortize material fees for # of CAC member/class.
7. Student fees.

Completed Application for Training Funding forms should be sent to the Endowment Committee and must be received by **Friday, January 18, 2002**.

II. Scholarships

A. General

The A. Reed and Virginia McLaughlin Endowment offers scholarships through academic institutions rather than directly to students. Proposals from academic institutions shall set forth their general criteria for student scholarship selection. The academic institution shall be responsible for selection of student recipients of such scholarships and shall report awardees and award amounts to the Endowment. Students receiving funds must be members of or applicants to, the CAC. Students who are interested should request application information directly from their academic program coordinator.

B. Request Format

Proposals for scholarships must contain both a summary and detailed section containing a general description of the academic program, its goals, and information on how the proposed funds would be used. For example, will funds be used for tuition and fee relief, stipendiary support, to underwrite student research, etc? The detailed description should include information on recipient selection criteria and who will perform the selection. Scholarship fund administrators must be named, including who will be responsible for submitting the mandatory annual report of activities to the CAC.

C. Reporting of Distributions

The Academic Program Coordinator must provide a full accounting of the recipients and how they meet the minimum criteria.

D. Refund of Unused Endowment Funds

Any remaining unused portion of the endow-

ment funding shall be returned to the Endowment Fund via the CAC Treasurer.

III. Technical Development and Research

A. General

The implementation of new and more efficient technical procedures related to forensic science requires the investment of time, ingenuity, and resources by those working in the field. The development of new techniques and technology can benefit the professional in one or more of the following ways:

1. Permitting the development of new or additional information from the analysis of certain types of evidence.
2. Implementing a mechanism for the analysis of new forms of evidence.
3. Improving the reliability of methods already in use.
4. Increasing sample throughput by improving efficiency.

Resources permitting, the CAC encourages technical development or research for the benefit of the profession. The A. Reed and Virginia McLaughlin Endowment does not generally fund professional level salary for researchers. Incidental funds for students assisting in research projects will be considered. However, neither the CAC nor the Endowment Committee shall act as an employer.

B. Request Format

Requests for funding for technical development or research should contain the following:

1. Project name and purpose.
2. Name(s) and curriculum vitae for each researcher.
3. A brief description or outline of the project.
4. Information on the project facilities, equipment, and supplies needed.
5. Information on the project site, including permission to use the site for this purpose where applicable.
6. Information on the adequacy of available space, safety planning, equipment and supplies.
7. Agreement for responsibility for disposal of products of research, including, but not limited to, chemicals, biochemicals, biologicals, and hazardous waste.

8. Project budget.

9. Time line and projected completion date of project.

C. Progress Reports

Progress reports will be required in writing, the frequency to be determined by the Endowment Committee. The recipient must prepare a final project report, including a summary of results and conclusions. As a condition of funding, products of research must be submitted to:

1. CAC Seminar Technical Program
Chairperson with intent to present research at a CAC seminar.
2. CAC Editorial Secretary for publication in a journal or newsletter as appropriate.

When problems occur or results are not as expected, funding recipients are expected to use good judgement in reevaluating the course and goals of the project, and in modifying the project approach as necessary to maximize the project results. The project should be terminated when it is determined that the value of the project is minimal and funding may be terminated by the Endowment Committee if progress is inadequate.

D. Funds for Equipment

If funds are awarded for the purchase of equipment, the CAC retains right of repossession of the equipment unless otherwise stipulated in the grant. All proposals for scholarships or research must be received by **Friday, March 22, 2002.**

E. Refund of Unused Endowment Funds

Any remaining unused portion of the endowment funding shall be returned to the Endowment Fund via the CAC treasurer.

Send proposals to:

Greg Matheson
Los Angeles Police Department
Criminalistics Laboratory
555 Ramirez St. Space 270
Los Angeles, CA 90012

Tel: 213-847-0043

Fax: 213-847-0040

Email: GBM1@aol.com



California Association of Criminalists

2002 Edward F. Rhodes Memorial Award

Application Form

All 2002 application forms must be **received** by the Awards Committee by **Friday, January 18, 2002** for consideration.

1. Applicant Information

Name:

Address:

Phone #:

CAC Membership Status: Affiliate Provisional Corresponding Member
(circle one)

2. Meeting Information

Meeting Name:

Location:

Date(s):

Attach a brief statement that describes how the meeting is of benefit to forensic practitioners, reasons for wanting to attend (e.g. paper presentation, poster session participant, taking certification exam, etc.), and the benefit to the applicant.

3. Sponsor Information

Name:

Address:

Phone #:

CAC Membership Status:

Edward F. Rhodes Memorial Award 2002

ANNOUNCEMENT AND INSTRUCTIONS

This is to announce that applications are being accepted for the annual Edward F. Rhodes Memorial Award. The Awards Committee must receive applications and sponsorship forms by **Friday, January 18, 2002.**

Ed Rhodes was a long time criminalist nationally recognized for his trace evidence work, certification effort, and teaching ability. Wherever Ed went, teaching and training were not far behind. He thoroughly immersed himself in the education of forensic scientists, other criminal justice professionals, and students. His ultimate goal was competency in the criminalistics profession. This led to the CAC Certificate of Competency program and, subsequently, a national certification program run through the American Board of Criminalistics. Ed believed in competency through knowledge, education, and training.

Towards this goal, donations from friends and colleagues were made in Ed's memory and the CAC established the Edward F. Rhodes Memorial Award.

The purpose of this award is to give a CAC member who is preparing for a career in criminalistics or is newly employed (less than three years) in the field of criminalistics the opportunity to attend a major forensic or scientific meeting of benefit to forensic practitioners. Examples of forensic meetings can include, but are not limited to, CAC Semi-Annual Seminars, American Academy meetings, International Symposia, or other regional association meetings. Examples of significant scientific meetings are InterMicro and Promega.

The award will cover travel, lodging, and registration expenses up to \$500. This amount may be adjusted by the Board of Directors based on income of the fund and meeting costs.

In the spirit of professionalism as exemplified by Ed, an ideal candidate should be willing to give some of himself or herself to the requested event. In the case of attending a meeting, the effort may be in time or money, but an applicant who proposes to share ideas, or otherwise participate actively in the meeting or training would receive greater consideration.

The award will also include a plaque that reads:

"Granted in memory of Edward P. Rhodes III to honor his commitment to the field of Forensic Science and to the California Association of Criminalists."

APPLICATION

The application (*previous page*) is to be filled out by the CAC member and is to include the following:

1. Name of the specific meeting.
2. A brief written statement outlining the applicant's reasons for attending this meeting and what he/she hopes to gain by attending.
3. Applicants to articulate commitment of time/money beyond the award allocation.
4. Sponsor information.
5. Estimated expenses.

SPONSORSHIP

A Sponsor Form (see enclosed) is to be filled out by the sponsoring CAC member and sent separately to the Awards Committee.

All applications and sponsor forms should be sent to the Awards Committee Chair. The Awards Committee will evaluate all applications and select the top three candidates. These applications will be forwarded to the Endowment Committee for final selection.

CAC Awards Committee
Shanin Sullivan, Chair
Ventura County Sheriff Crime Lab
800 S. Victoria Avenue
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Tel: 805-654-2333
FAX: 805-650-4080

Training & Resources

Benefits of CAC Sponsored Training:

- CAC members get 1st priority in class selections for CAC sponsored courses
- CAC members do not pay a materials fee for CAC sponsored courses
- CAC members from out-of-state or private labs do not pay tuition to CAC sponsored courses at CCI
- Opportunity to attend classes outside of your discipline

Questions? Contact Your T&R Committee:

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Have You Submitted Your T&R Survey Yet?

The Training and Resources (T&R) Committee is tasked with prioritizing training proposals submitted for CAC funding. In this effort it is critical that the T&R Committee keep up with the training needs of our members. The T&R Survey is our primary source of input from our members. Out of almost 600 members, only 18 T&R surveys were returned last year.

CAC members who complete a survey have an opportunity to voice their preferences for future CAC sponsored training. That training is not limited to the classes listed on the survey. There are spaces available for members to write in new classes that have not been offered before. If there is sufficient interest in a particular topic, the T&R Committee will research that area and seek instructors who can provide that training. CAC members can also take classes for career development or in areas that may be outside of their current work disciplines. Our survey information is also submitted to CCI to assist in their planning of future training.

The Training and Resources (T&R) Committee needs your help. Please take a few minutes to complete and send in the T&R Survey published in this newsletter. A copy of the T&R Survey is also available on the CAC website under "Current Events and Training." The website Survey looks like it is for managers only, but it can be used by anyone until an updated Survey is available online. Make sure to rank your top 3 classes.

Surveys may be completed and returned anytime, but must be received by November 1st to be counted for the following year.

Help us help you. Send in your T&R Survey today!

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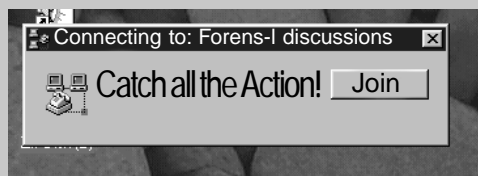


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California
Association of
Criminalists

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The world of forensic science is rapidly changing—stay in touch by subscribing to the "Forensic Listserver." Completely free, this message board is always buzzing with hot topics about certification, use of canine detection methods, DNA technical questions, crime scene processing methods and even requests from TV producers for broadcast ideas.

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Interested in becoming a member?

- Receive the *Journal of the Forensic Science Society* and/or *Journal of Forensic Sciences*—
- Receive *The CAC News* —
- Lower, Member registration fees at CAC Seminars —
- Receive CAC Membership Roster / Seminar Abstracts —
- Receive Salary Survey of Government Labs —
- Membership in a prestigious Forensic Society —

To join, follow these simple steps: 1. Contact the CAC Membership Secretary, Elissa Mayo-Thompson (909)782-4170, to obtain an information packet and application. 2. Fill out and return the application to Elissa along with your first year's dues & appl. fee. 3. Two of your listed references will be contacted. 4. Applicants are screened to ensure that they meet the requirements. (Outlined in Article 11 of the CAC Membership Handbook). 5. Your application will be presented to the Board of Directors at their next quarterly meeting. If approved, your application will be voted on by the membership at the next Seminar.

Courtroom Calamities

I recently received a subpoena from the Department of Motor Vehicles for an Administrative Per Se Hearing. For some reason, unknown to me still, I read every line on the subpoena. The very last line stopped me in my tracks and almost put me on the floor laughing. The last line read "California Relay

Telephone Service for the dead or hearing impaired...". I guess the DMV has figured out how to contact the other side proving once again that there is no escape from the California Department of Motor Vehicles, not even when you die.

Katina Repp
BFS Central Valley Lab

Show your true colors!

**Decorate your lab with
official CAC merchandise**



T-shirts, coffee mugs, retractable badge holders! Available at any semiannual seminar and direct from the CAC. Contact Curtis Smith curtis.smith@doj.ca.gov

Can't Find It?

To reduce the costs of publication, the *CACNews* may place calls for nominations and other items that were previously found in the newsletter mailing as inserts ON THE WEB. Visit www.cacnews.org to see what is offered. Content changes periodically, so visit often!

Father of Fingerprint Statistics Endorses Medicinal Marijuana

Sir Francis Galton, best known to the field for his development of the first statistical model justifying fingerprint uniqueness, smoked marijuana for medicinal purposes. Galton described his use of the weed in a letter to his friend and colleague, the statistician Karl Pearson. The passage reads as follows:

Aug. 4, 1910

My dear Karl Pearson,

It is pleasant to hear that you are thriving in Yorkshire. I am still in London, not going to Grayshott until Aug 16. We have had much of very unenjoyable weather, but at last 3 days have been pleasant. Asthma has plagued me, but I stave off the worst bouts now, by smoking a cigarette of bhang (Indian hemp - hashish). It is curious to perceive the spreading of the narcotic effect over the lungs & everywhere.

[see The Life, Letters and Labours of Francis Galton, by Karl Pearson, Vol IIIa (Cambridge University Press, 1930) p. 430]

There is not, to my knowledge, any other reference to Galton's use of marijuana. The cited paragraph makes it clear, however, that the therapeutic benefit of marijuana was well appreciated by Galton.

Galton was 88 years old and in poor health at the time this letter was written; he died five months later at Grayshott House, Surrey. According to Pearson, Galton maintained his mental vigor and alertness to the end. We will never know to what extent Galton's use of medicinal marijuana contributed to his longevity and well being. If Galton was alive today, given his title and preeminent reputation, it is interesting to speculate what impact his endorsement would have on the current debate regarding medicinal marijuana.

I thank Professor Steve Stigler, Department of Statistics, University of Chicago, for bringing Galton's letter to my attention several years ago; his book, *Statistics on the Table: The History of Statistical Concepts and Methods* (Harvard University Press, 1999) is a good read.

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CRIME SCENE DO NOT CROSS

**FALL SEMI-ANNUAL SEMINAR
OCTOBER 17-20, 2001
UNIVERSAL CITY, CALIFORNIA**



Los Angeles County Sheriff's Department
Scientific Services Bureau



Registration and Information: Dean Gialamas at (213) 989-5003 or email: dmgialam@lasd.org