

News of the California Association of Criminalists • 4th Quarter 2004



The President's Desk

Signed into Law

Senate Bill 1623: Laboratories—Licensing and Accreditation, was finally signed by Governor Schwarzenegger last week. This bill is a welcome relief for those individuals that work in forensic alcohol analysis. I was an alcohol analyst and personally experienced the headache of dealing with the Department of Heath Services (DOHS). This bill mandates that DOHS will no longer have oversight of the alcohol programs in laboratories that are accredited by ASCLD/LAB. Several individuals in the CAC and CACLD have been working on this effort for a number of years.

The effort to curb DOHS' control began in 1974 when Kathy Holmes agreed to be the CAC liaison on a DOHS Advisory Committee. Kathy, Marty Breen and Jeff Thompson made several trips to Sacramento to testify in committee hearings over a period of years. When Kathy Holmes stepped down as the CAC liaison, Jeff Thompson took over the reins. Jeff brought CACLD into the fray. With the addition of CACLD, the effort was strengthened.

In 2000 Jeff Thompson was instrumental in writing the first bill introduced to the California legislature (SB1849) to effectively change DOHS' oversight practices. Hiram Evans had been tilting at the DOHS windmill himself and came on board to help. Hiram enlisted the help of Paul Curry the lobbyist for the San Bernardino County Sheriff's Department, who in turn enlisted the help of Senator Ross Johnson. Senator Johnson agreed to sponsor SB1849 and we all thought change was on the way. The bill sailed through all the review committees and both houses without a "no" vote. Hopes ran high as it went to Governor Davis for his signature. The Governor vetoed the bill dashing our hopes.

In 2001 Patty Lough and Kenton Wong took over as the CAC liaisons. Senator Johnson and his administrative consultant Linda Brown revised SB1849 and introduced it as SB1623. The bill again sailed through committees and both houses without a "no" vote. It went to Governor Schwarzenegger and this time the "Governator" signed it. Hallelujah!!!!!!

I wanted to thank all the people that have been involved in this tremendous effort. They gave of their time and worked tirelessly for the good of the Forensic Community. Job well done!

Thanks,

' Youro

P.S. If I left anyone out I apologize.

This bill mandates that Calif.

Dept of Health
Services will no
longer have oversight of the alcohol programs in
laboratories that are accredited by
ASCLD/LAB.



Pennie Laferty
CAC President

Fourth Quarter 2004





On the cover...

The crime lab, portrayed as an "evidence grinder" by award-winning artist Eric Joyner (ericjoyner.com). See the accompanying article "Thinking Outside the (Black) Box" in this issue. Original illustration commissioned for the CACNews by Calico Press, LLC which retains the copyright.

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CACBits • Section News



History Channel Features CAC Member

CAC Member Paul Dougherty was featured on the recent TV show "*Tech Effect*." The subject of the show was a look at the evidence in the "St. Valentine's Day Massacre" of 1929. The show aired on July 20 and was shown on the History Channel.

Excerpts from E-News Update

- STEVE O'CLAIR IS RETIRING after 31 years of service with the California Department of Justice. Please see the website for a copy of the flyer www.cacnews.org/wordfiles/SJO%20retirement%20080404.doc
 - COVERDELL LOBBYING EFFORT:

Letter to CAC Membership From Barry Fisher:

We need your help with some grass roots lobbying in Washington, DC.

Some time ago, I emailed a request to have Senators Boxer and Feinstein sign onto a letter (see Draft below) which Senator Sessions is preparing for Senator Gregg (chair of the Commerce, Justice, State subcommittee of the Senate Appropriations Committee). The Appropriations bill has yet to be finalized and this may be our last chance this year to have more money available to us.

This effort concerns the full funding of the Coverdell National Forensic Science Improvement Act which would provide to California crime labs considerably more funds than we now receive.

To date, Senator Boxer has signed on, but we have yet to get Senator Feinstein to add her name to this bipartisan effort.

We need your help to have both of our Senators to step up to the plate to help support forensic science. Would you call Senator Feinstein's office in Washington at (202) 224-3841 and ask to speak with the person who handles judiciary appropriations for the Senator.

Please send me an email to let me know that you made a contact at the Senator's Office and to whom you spoke with.

I appreciate your efforts.

Draft Letter From Jeff Sessions (R-AL) to Senator Judd Gregg (R-NH):

We are writing to request that the Commerce, Justice, State Committee fully fund the Paul Coverdell National Forensic Sciences Improvement Act of 2000 (Pub. L. 106-561) for \$135 million. The Act unanimously passed the Senate and was signed into law in December 2000.

As you know, the Coverdell Act authorizes the Attorney General to make grants to States to be used for forensic facilities, personnel, equipment, education, and training. The law enforcement community, particularly forensics science labs, strongly supports current Coverdell funding in the CJS Appropriations Bill. Supporters include the American Society of Crime Lab Directors, the Consortium of Forensic Sciences Organizations, the American Society of Crime Lab Directors Laboratory Accreditation Board, the American Academy of Forensic Sciences, the International Association for Identification, the National Association of Medical Examiners, the National Center for Forensic Science, and the College of American Pathologists.

A recent study conducted by the above-mentioned organizations revealed that the largest 50 laboratories in the U.S. ended the year 2002 with an increase of 134% in their backlogs or 270,000 cases. Of those cases 50% were in controlled substances, 18% were in latent fingerprints and 11% were in DNA. In fact, the organizations estimated that in order to achieve a 30-day turnaround time for all requests they would need in excess of \$36 million for personnel and \$18 million for equipment.

Coverdell grants are unique as they may be used for personnel and construction which forensics labs say they desperately need. Furthermore, the Coverdell Bill requires grantees to be accredited before they receive funds. Fully funding the Coverdell Bill in the FY 2005 Senate CJS Appropriations Bill will allow forensic labs' budgets and staff to keep up pace with their ever-growing caseload, thus enabling prosecutors to try cases in a timely manner and crimes to be solved.

- The 909 Area Code Split on July 17th. Riverside has a new area code (951). All phone numbers for the Riverside DOJ lab employees and any other members in the Riverside area (Banning, Beaumont, Canyon Lake, Corona, Hemet, Lake Elsinore, most of Moreno Valley, Murrieta, Norco, Perris, San Jacinto, and Temecula) have this new area code. This split does not affect San Bernardino. Please update your membership directories. There will be a three month grace period, but on October 30, the old area code will no longer work. For more information visit the following website: http://www.sbc.com/gen/general?pid=1446
- PAYPAL IS AVAILABLE FOR ONLINE REGISTRATION for CAC Fall Seminar in Ventura. Online registration using PayPal is available for the CAC Fall Seminar in Ventura. The deadline for early registration is September 30th.
- CACLD DOHS LIASON PATRICIA LOUGH advises that Governor Schwarzenegger signed SB 1623 to take effect January 1, 2005. A review committee will be formed early next year to update Title 17. The bill essentially removes DOHS oversight of forensic alcohol testing and puts the oversight in the courts. All labs will now have to follow ASCLD/LAB guidelines for proficiency testing. The CAC as well as CACLD helped support this bill.
- The California Forensic Science Institute is hosting a public forum on Friday, October 1, 2004 at 1:00PM to discuss the California DNA Initiative, Prop. 69, which creates an all felon DNA database in California. This is a very important piece of legislation and this will be an opportunity to come and learn about it. The meeting will take place in Los Angeles, but an exact location has not been decided. For more information or to RSVP, email gcardenas@cslanet.calstatela.edu .

Jobs • Meetings • Courses

- January 28 February 1, 2005: The American Society for Mass Spectrometry will be holding its 17th Sanibel Conference on Mass Spectrometry at the Sundial Resort, in Sanibel Island, Florida. The title of this year's conference is: Mass Spectrometry in Forensic Science and Counterterrorism. This Conference will bring together mass spectrometry professionals from law enforcement, academic, and industry laboratories to discuss the challenges, new instrumentation, and applications of mass spectrometry to forensic science and counterterrorism. Conference registration is limited to 125. Contact information:Pete Dreifuss, 240-264-1413, Peter.Dreifuss@atf.gov
- The recently published Membership Directory has some out of date information. Here are some corrections: Email for Adam Dutra is incorrect on the inside cover, it should be adutra@pd.sandiego.gov.

The lab number for the California DOJ Jan Bashinski DNA Laboratory (Richmond Lab) is (510) 620-3300. From this number, you should be able to access the employee directory. The employees also may have private phone numbers, but most of the numbers published in the directory are incorrect.

Celia Hartnett's contact information is out of date, it should be: Celia Hartnett, Lab Director, Forensic Analytical, 3777 Depot Road, Suite 409 Hayward, CA 94545, Phone 510-887-8828 ext. 148. Fax 510-887-4451. CCHartnett@forensica.com.

Also the list of laboratories in the back of the directory is also very much out of date. Several labs that do not exist are listed including: Forensic Alchemy, the CA DOJ DNA Berkleley lab, and the CA DOJ Stockton Lab. Several others have incor-

rect address or phone number information including the ATF lab, CA DOJ Ripon (Central Valley Lab), and CA DOJ Riverside. See www.cacnews.org/labs.htm for a more recent list.

- APPLIED BIOSYSTEMS STILL SEEKING Forensic Technical Support Specialist. The position requires: Knowledge and skills normally acquired through completion of a bachelors degree in Life science, Chemistry, engineering or related fields. 2- 4 years hands-on experience in a technical support related field, including 1 year hands-on experience with Applied Biosystems or related biotechnology products. Specific experience or training in an area related to customer relations technical training and technical support is preferred. For more information contact: Cindy Holloway, Staffing Consultant, Applied Biosystems, Inc., 650-638-5363, hollowck@appliedbiosystems.com. For other job listings, visit the CAC website (http://www.cacnews.org/jobs.htm)
- The Seattle Post-Intelligencer recently published a fairly scathing report on the Washington State Police crime lab system titled "Errors of Evidence." Several members have emailed me segments of the articles. I am disseminating this information because I expect California news agencies will begin requesting similar information (if they haven't already). I believe the articles can be found at: http://seattlepi.nwsource.com/specials/crimelab/



CAC Study Group at Long Beach PD

A host of interesting topics were discussed at the recent study group meeting held July 21 at the Long Beach PD academy. In the trace evidence group, Wayne Moorehead (above) gave an introduction to explosives. Other groups that met included alcohol, DNA, arson, toxicology and drugs. The lunch presentation was given by the LA-Special Operations Response Team.



2004

Fall: Ventura Co Sheriff

2005 Spring: Oakland PD Fall: Los Angeles PD

2006

Spring: Contra Costa Sheriff Fall: DOJ Riverside

2007

Spring: Orange Co. Sheriff Fall: DOJ Richmond DNA

2008

Spring: Sacramento DA Fall: San Diego PD

2009 Spring: Santa Clara Co.

The Point is the Dream

Time to ponder the great scientific questions of the modern era...

When we speak of things that we currently do as hobbies, why do we refer to them as *past*imes. Speaking of past time, when it is over where does it go?

On a side note...

During a recent discussion with a colleague in which I expressed favor with one presidential candidate, I was struck by the response, "So I guess you do not believe in science?" I find it interesting that the two should necessarily go hand-in-hand. But, to respond, I would have to state that I place my trust first in faith¹ and weigh the tenets of scientific knowledge against that standard.

Thinking to a logical conclusion...

I just placed my lunch into the microwave in the lunchroom and observed that by using the microwave I save myself about 80-85% of the time it would take to prepare the same meal in a conventional oven. I look at my cell phone and know that I could (safely) have a conversation while driving thereby saving time from having to have that conversation later. Computers and printers are constantly being developed that save us more and more time. Businesses have developed on-line systems that reportedly save time from having to be on hold waiting for customer service. So why is it that when I typed in a search for "less time" I came up with 1,520 different books that help people to do more in less time? What happened to all the time we saved?

Out of nowhere...

Probably the best definition I have found for what a dream is (and I do not mean the visions you see when you are sleeping). A dream is that which is "to draw you toward the kind of life you were born to love!"²

The ever so necessary Giants update...

Okay, maybe this is not necessary but it is being done anyway! After all, how would it look if the first time this did not appear happened to be when the Giants were not doing as well as in times past? I would be labeled as someone who jumps on bandwagons! Well, as a long and true Buffalo Bills and Buffalo Sabres fan I can assure you that you will not find me jumping too many bandwagons! So, let's call a spade a spade. To date the Dodgers are playing better ball. The Giants hitting is solid but their defense leaves a bit to be desired and their pitching even more so. The success of the team revolves around two players and one of them can only pitch every four or five games. Things are not looking good for a championship this year.

Connections...

Hmmm...Ron is a Bills fan and a Sabres fan too. Given that connection, the Giants will not only never win a championship but the next time they are playing for one they will lose to a team from Texas!

Advancement throughout the years...

This is completely unrelated to forensics but several things have my attention lately. One of them is home improvement. In the early years building code required that hot water tanks have rigid piping. In California, because of the propensity for earthquakes, building code changed requiring flexible piping so that if the hot water tank moves the piping will not snap. Of course, they have now added the requirement for the tank to be strapped in so that if an earthquake does hit, the tank does not move.

On a more serious note...

I was playing pinochle at a new friend's house a little while back and he was regaling me with stories from his most recently developed pastime—the purchasing of auctioned storage units that have been relinquished due to nonpayment of monthly fees. There are multiple reasons why he has ventured into this bit of a treasure hunting experience, but chief among them is a relief from the stress of work.

Then conversation switched to what I do for a living. Remember what Penny talked about in her last address? Mention the words forensic science and you have conversation meat for the next hour! Thanks to television, people think we have one of the neatest jobs in existence. I remember spending last Thanksgiving at my brother's. A friend of his (who just happened to be a *C.S.I.* fan) asked, "So Ron, how does it feel to have one of the hottest jobs around?"

Good question. In actuality, I am not quite sure of the answer. Recently I had some extended time away from the laboratory. Toward the end of the extended time, different friends asked me if I was looking forward to going back to work. I said that I really enjoyed what I did, but that if I never had to do it again, I really would not miss it all that much.

Now that's not to say that I do not care about this profession and the ones that employee me, because I do. In fact, I feel that many would describe me as passionate about foren-

sics, its progress, and its place and role in the lives of people who are impacted by it. It really is unlike any other profession and I feel privileged and humbled to have any sort of role in it. At the same time, if I never had to do it again I would not miss it.

Mind you, I am not trying in any way to suggest that I do not appreciate what I have, the opportunities that have been provided and the friendships I have developed. I do. But, at the same time I also re-



Ron Nichols
CAC Editorial Secretary

I do enjoy coming to work. At the same time, I would not miss it if I never returned. The reason is simple: forensics was not meant to be the point.

alize that forensics is not the point, but only part of the point. It is not the end; it is simply a part of the means to an end. Given that, there are many other things that need to fit into the picture.

Recently, I heard it said that 70% of the population does not find their jobs fulfilling. Fred Franks, the speaker, went on to say that, "You will never find a job or a career that uses 100% of your talent." He went on to provide the reason that, "God never intended for your job to be what gives you complete fulfillment. If jobs gave us complete fulfillment then why do we need God, or church?" Now, this is not intended to be an apologetic but it was necessary to quote accurately for a reason. Let's extend that reasoning out. If you could find 100% fulfillment in forensics, there would be need for nothing else.

That's quite a sobering thought so how about if we sit there for a second. There would be no need for family. There would be no need for outside activities. There would be no need for friends. There would be need for nothing else. Where do you fall in this realm of fulfillment? Are you striving for the ultimate fulfillment? Or, do you see your role as completely empty and meaningless? Let me ask the question in a different way. Does your role within the profession define who you are or do you define the role?

You may be asking, "So Ron, what is the point?" The point is the dream. It is "that which draws you toward the kind of life you were born to love." It is different for each one of us. The key is to unlock that dream. While it may not be 100% fulfilling (and never should be) your role in this profession, no matter what it may be, can be instrumental in helping to bring that dream to fruition.

Placing your role in that perspective will allow you to maximize whatever fulfillment that role is meant to have in your life. Remove forensics from the picture just for a second and you will find that this is applicable to other roles in your life as well. No matter whether the role is professional, personal, community, or others, placing each in that same perspective will help you maximize the fulfillment that that role was meant to have in your life.

Do you find this a difficult discussion to follow? Let me use a personal example. With the help of several people in my life, most notably my wife, I feel that I have been able to unlock that dream. Forensic science is not that dream, but I do understand the role that it has played and will continue to play in the fruition of that dream. This profession has allowed me the opportunity and training to think outside the box. This profession has allowed me the opportunity to hone reasoning skills. This profession has opened the doors to avenues of public speaking that have helped develop confidence in front of large groups of people. This profession has permitted me the opportunity to write in a variety of forums on a variety of topics. This profession has allowed a number of personal relationships to be built, all of which are special. All of these have been important in my personal development.

I truly do enjoy my role in this profession. This profession is unlike so many others and I personally have many diverse opportunities that I know others do not enjoy. I do enjoy coming to work. At the same time, I would not miss it if I never returned. The reason is simple: forensics was not meant to be the point.

I encourage you to define that point in your life, unlock that dream. When you do, you will be able to see how each of your various roles fits into the fruition of that dream. Do me one favor though. Don't limit your dream based upon your own assessment of your abilities and limitations. After all, if it your dream is limited by what you could do alone, it really would not be a dream now would it?

Until next time...

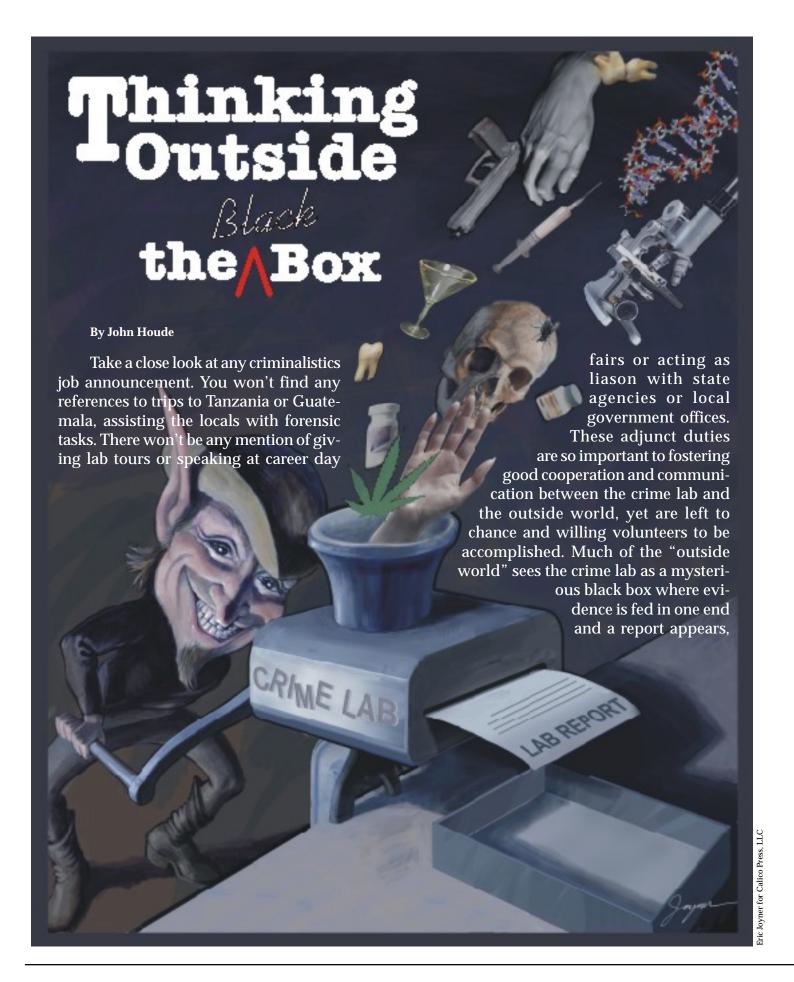
I look forward to seeing you in Ventura. I also wish to extend my best wishes to you and your families during the coming holiday season. In the meantime, if you want to talk more about your dream and how to discover it I would love to hear from you.

/<0m

- 1 Faith defined as the confident assurance that what we hope for is going to happen and the evidence of things we cannot yet see (Hebrews 11:1-2, NLT).
- 2 Bruce Wilkinson, The Dream Giver, Multnomah Pubs, 2003, p. 6.
- 3 Pastor Fred Franks, Calvary Temple, August 15, 2004.



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as if by magic, out the other. A literal blizzard of television shows have tried to demystify the process, but have they succeeded? Certainly not in the case of dramas showing weird, arcane instruments of dubious credibility being used by the "techs." That kind of portrayal actually fosters the notion of more wizardry, not less. The reality is that if there is to be an appreciation of the crime lab by outsiders, both citizens and client agencies, there needs to be interaction with criminalists apart from casework.

Some good things have come out of the current obsession with *CSI*-type dramas. High schools and colleges now offer courses dealing with all things forensic. Befriend a science teacher—perhaps you'll get an opportunity to influence the course curricula toward reflecting reality instead of drama.

Here are five ideas I employed with great success during my tenure as a criminalist. Use them as a springboard for your own ideas on how to think outside the black box.

1. Make tours more fun, and include hands-on activities

for people to try. Years ago, my boss, Cecil Hider, gave what were probably the most memorable tours ever. He posted court exhibits from interesting cases along the long lab corridors. When someone would come for a tour, he would stroll down "memory lane" pointing out the facts of each case and how the lab's contribution was key in the resolution of the case. Some of the exhibits had a movable object, such as a piece of plastic with a tracing of a paint chip, held to the wall by a string. He would ask the "tourist" to try to make the match. It was fun and the person always enjoyed trying to orient the overlay with the actual photo of the chip. I guarantee you they remembered that part of the tour, and it allowed them to actually perform a criminalistic task, not just see a bunch of computerized equipment with flashing lights.

To get ideas on how to present cases in an interactive way suitable for all ages, visit your local museum, aquarium or learning center. Recently, I

visited the Seattle Aquarium. It's full of hands-on exhibits that are safe, fun and astounding in their creativity. I don't mind stealing ideas from places like this.

2. Offer to act as expert resource for mock court. At a high school in Ventura, mock court was a big deal, using real, vacant courtrooms and getting a nice write-up in the local paper. The American Government teacher was putting on a DUI mock trial. When I asked if I might help him make it more real, he was delighted. The group was very receptive and it was fun to share my expertise with them. They had not even considered having expert testimony as part of the presentation. Most people don't think of criminalists in a mock trial. When it was over, I know that the students came away with an appreciation for the technical end of DUI case preparation.

If you want a more realistic experience that will keep you on your toes, volunteer at a local law school to act as an expert witness in mock court. There are lots of law schools that have classes at night, and often they use real courtroom settings as well. Of course, the questions will be a lot tougher than high school, too!

3. Offer training seminars for outside agencies, such as district attorneys, public defenders, emergency room nurses, arson investigators, etc. Most labs already do this, of course, but do they do it enough? There is a constant turnover in personnel and the folks who took part in your last seminar may not even work in the same department today. Also, have you thought of all of the client agencies that could benefit from such training? When I worked at Ventura Sheriff's lab, we counted twenty-two client agencies, including postal inspectors, DMV investigators and even the state lottery commission. I think that if an agency is going to submit evidence to the lab, then they need to see what goes on inside the lab. Destroy that "black box" mentality. Be careful how many agencies you invite, as you may be surprised at the large crowd that shows up!

Tailor the presentation to the agency. In the case of public defenders, we gave tours, but also went over to their meeting room and held Q&A sessions on the analysis of controlled substances. They will ask questions, but, being lawyers, will also be watching you as a potential witness, to see how you present yourself. You can do a lot to bolster your own reputation by giving a good, straightforward presentation as if it were to a jury. You may not even get called to court as often!

For our ER nurses, we demonstrated how we process sexual assault evidence. Afterward, they told us it really helped them to know how the lab was going to use the samples that they collected. We destroyed the black box in their mind. Up until their tour, they just plopped the samples into an envelope and had only a vague idea of what happened to them after that. (Often wondering why we need so many hair controls.)

When it came to the arson investi-

gators, we had a little problem to solve. Occasionally an accelerant detection dog handler would send in a sample that the dog had "hit" on. If we failed to confirm the presence of an accelerant, then our reputation was diminished in their mind. It smoothed our relationship with the dog handlers when they could see how we processed their samples. We discussed with them the different detection limits of our equipment compared to their dog's nose. We also got a chance to show the investigators why we needed certain evidence packaged a certain way. It really sticks with them when they can see it demonstrated.

4. Attend investigative meetings. There are always a lot of task force meetings and investigative round tables, homicide detective's lunches, etc. A great way to bust out of the black box is to actually show up to some of these. Take another look at your employee bulletin board, past the retirement announcements and posters for upcoming get-togethers. Very often there will be a meeting at which you can discuss current cases, ask-

If you want a more realistic experience that will keep you on your toes, volunteer at a local law school to act as expert witness in mock court.

continued

ing informal questions of other experts such as prosecuting attoneys. Perhaps they can explain a complex topic such as search-and-seizure law that may be of concern to the lab. You'll often be asked questions about evidence processing by someone in the group and the good impression you leave can help your "networking" efforts. Your "Rolodex" will get some nice additions, too.

5. Act as a catalyst in bringing together outside agencies who might help one another. Suppose you knew that the district attorney investigators were among the best, the cream of the crop hired from many departments. Also, suppose you knew that the investigative staff from (let's say) the Parks Department were pretty green, rarely went to court and tried to do a good job, but really needed some seasoning. As a criminalist, you examine evidence from both of these agencies and know many of the players. You could ask the super sleuths of the DA's office if they wouldn't mind putting on a mini-seminar on interviewing techniques for the fellows at Parks. If they agree, then gently mention (there are egos at stake here) to Parks that you're giving a presentation to the two agencies and that the DA's investigators have graciously agreed to include a segment on interviewing techniques. Sound like too much meddling? Maybe, but it actually worked for me. All of the "Parks" investigators came away feeling like they really got something positive out of the meeting. The only reminder is that in a few years the staff turns over and the session needs to be repeated for the newcomers.

Finally, as criminalists, we often are at the crossroads between dozens of different agencies and see first hand the quality of their work. Even the DA's office doesn't see the stuff we see. Many cases are personnel matters or undercover and aren't presented to the DA. Only the crime lab is privy to everything. If we can bring together two different groups to rub off some good training, why not?

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!

FEEDBACK

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*.

Bill Corazza

While working with Bill on the QA Technical Advisory Group, I observed his continuing concern for our greatest lab resource: the people doing the work. QATAG was tasked with writing/updating three controlling documents for the CADOJ lab system: QA Manual, Policy and Procedures, and Inspection Protocol. Each had to be consistent, and conform to ASCLD/LAB and DOJ criteria. As we debated to find the right words for all situations, he would remind us of the approximately 150 professionals who would have to live by what we drafted on note taking, marking evidence, and calibration of instruments. In another example, as supervisor reviewing completed cases, he would take a stack to circulate through the lab people as an additional check for something he may have missed. A bottle of wine was offered to the criminalist finding the most items. I really admired his ability to balance and keep ahead. He always remembered where he came from.

Lou Maucieri Sacramento

Help Wanted for cacnews.org

If anyone is interested in helping out with the web site, please contact me. I've not had much free time to work on a few projects or keep things going, for instance, on the research page.

Mark Traughber mark.traughber@doj.ca.gov

Correction

Please correct the email address for Adam Dutra in the recently published *CAC Member Directory*. The email address next to Adam's photo on the inside cover should be adutra@pd.sandiego.gov.

New Contact Info for CAC Treasurer

Hello everyone! I have recently left the LA County Sheriff's Department and joined the Orange County Sheriff-Coroner Department as their new director for the Forensic Science Services Division. I have attached my new contact information so you can update your records.

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DGialamas@fss.co.orange.ca.us

Reports from the CAC Regions

Regional Director, South —John Simms

The Long Beach luncheon was hugely successful with over 115 people attending. Congratulations to Elana Quinones for coordinating the event. The luncheon speakers were awesome with presentations on international crime scenes. Almost all the study groups met with good attendance. Quality Assurance met independently due to the time it needs for the general meeting. See paragraphs below.

It appears as if Riverside DOJ will be hosting the first of the luncheon meetings after January 1 2005, and we are exploring the possibility of having another interim luncheon meeting either in September or later in November. I am soliciting input from the study group chairs as to their thoughts.

The quality assurance study group had an all day meeting in San Clemente on Aug 11. Orange County, Los Angeles Police, San Diego Police and Sheriff's, DOJ Riverside, and Long Beach were represented. And Retired Dude #1 (Jim White) got out of bed ahead of schedule to join us for the day. That was quite an accomplishment in itself.

San Bernardino's QA Program is in transition with the promotion of Don Jones to Supervisor of Firearms and Forensic Biology. Cathy Wojcik will be the new QA manager.

I have again resumed chairing the QA Study Group for a short term while Karla Taylor takes a short leave of absence from the chair position.

The QA study group will be conducting quality system audits for LAPD in September, Long Beach in October, Orange County in November, and Ventura in December.

Regional Director, North —Linda Abuan

The Santa Clara County Crime Lab hosted a dinner meeting on June 10, 2004 at Pedro's restaurant in Santa Clara. Mark Powell and Brooke Barloewen were the meeting coordinators. Prior to the dinner meeting the following study groups met: DNA, Firearms, Trace, Drugs and Alcohol.

The guest speaker for the dinner meeting was Mario Soto from the Santa Clara County Crime Lab. The topic of discussion was Computer Forensics. Mario gave a great presentation on the methods of collection, preservation and examination of digital evidence.

The next dinner meeting in the North will be hosted by the UC Davis Forensic Science Graduate Program. Fred Tulleners will be the meeting coordinator. The date for this meeting has not yet been set, however the meeting will most likely be scheduled for some time in November. The Alameda County Crime Lab has also volunteered to host a meeting in early 2005.

Laboratories are needed to host lunch or dinner meetings in 2005. If your laboratory is interested in hosting a meeting, please email me at Labuan@forensica.com.



<u>Frankenstein</u> Forensics

Tentative Line-Up for the Ventura Meeting:

Expert Witness Testimony

Judge McGee & Judge O'Neill, Ventura Co. Superior Court

Automotive Paint Database

Marianne Stam, California Department of Justice

Toolmarks on Bones

Steve Dowell, Los Angeles County Coroners Office

Yuma Data — Bullets Do Some Strange Things!

James L. Roberts, Ventura Co. Sheriffs Laboratory

Separation of Spermatozoa and Epithelial Cell Mixtures by Laser Microdissection for Forensic DNA Analysis

Christine T. Sanders, Rosalind Franklin University of Medicine and Science, The Chicago Medical School

Case Study: The Mysterious Case of Boris Mortimer

Denise Lyons & Chrystal Craver, Ventura Co. Sheriffs Laboratory

Memoirs of a Prosecutor: The Haun/Dally Case

Lela Henke-Dobroth, Ventura County District Attorney's Office (Retired)

Identify that Corpse!

Michael Bowers, DDS, Forensic Odontologist

Identification of Sperm Heads: Two Death Penalties, a Civil Suit and a Chapter

Edwin L. Jones, Jr., Ventura Co. Sheriffs Laboratory

Smoke Over Athens — **A Disappearing Act** Dr. Glenn Wagner, San Diego Medical Examiner

Underwater Shooting

Greg Laskowski, Kern County District Attorney's Laboratory

Dental Stone Casting of Rubber and Blood Impressions on Asphalt and Cement

Matt Johnson, Orange County Sheriff's Department

Confessions of a Crime Lab Groupie

Jan Burke, Author

Optimizing Computer Technology for Forensic Imaging

Paula Miller & Helen Griffin, Ventura County District Attorney's Office / Ventura County Sheriff's Department

Trace Case Study: Sanchez/Barroso

Edwin L. Jones, Jr., Ventura Co. Sheriffs Laboratory

Firearms Case Study: Sanchez/Barroso Continued

James L. Roberts, Ventura County Sheriffs Department Forensic Sciences Laboratory

A Brief History of Firearms Analysis

Paul M. Dougherty, J.D., D.W.M Laboratory, L.L.C.

Glass Cuts

Helen Griffin, Ventura Co. Sheriffs Laboratory

Identification of Human Blood

Susannah Jarvis, M.S., Los Angeles County Sheriffs Department

Bring-Your-Own-Slides Presentations

Casework Slideshows

SB 1623 Update: Laboratory Licensing and Accreditation of Forensic Alcohol Analysis.

On June 8th, Pattie Lough (CACLD Liaison) and I testified in the State Assembly Health Committee Hearing in support of SB 1623. Our analysis of DHS activities, analysis of the opposition issues, and a summary of current issues between crime labs and DHS were provided. It was a dynamic hearing and good questions were asked by the committee members. Bill Phillips (DOJ) was present to answer questions related to State DOJ labs. Nick Warner (CACLD Legislative lobbyist) was present and represented support of the CA Probation, Parole & Correctional Officers Association and the CA State Sheriffs Association. We had obtained written support from the Peace Officers Research Assoc. of CA (PORAC), six crime labs, and 1 individual.

Since there were no speakers present who opposed the bill, the Committee Chair requested DHS representatives come forward to answer direct questions regarding improvements made since the 1999 State Audit. Chief Clay Larson and DHS Asst. Director Kimsey represented the Department. Basically, they stated that the average response time (note that this does NOT mean "approval") for method review has gone from 15 months to 45 days; other audit recommendations such as merging of the inspection and proficiency programs with ASCLD/LAB were in a "discussion stage" and he was "awaiting input from outside agencies;" and that DHS had successfully fulfilled the audit recommendations by performing 27 laboratory inspections in the last three years, adding e-mail capability for DHS communications, and online applications through the DHS Website. They presented no charts, no data, and said little else to defend the existence of their program.

The committee seemed very well prepared, asked specific questions, and did not agree with DHS regarding their improvements. Senator Johnson, who is sponsoring the bill for us, read Gov. Davis' 1999 veto letter to the committee, in which Gov. Davis directed DHS to make this their "highest priority"—and quipped that "thank goodness Gov. Davis made this issue a high priority as it's taken five years to get only to the discussion phase, otherwise who knows how long it would've taken if it wasn't a 'high priority.'" Subsequently, the lack of improvements over such a long time after involvement of the senate, assembly, and governor, seemed to play major significance as the Assembly Health Committee unanimously passed the bill (13-0) that afternoon.

The bill will now be sent to the Assembly Appropriations Committee on 08-13-04, and then will move to the General Assembly, before finally progressing to the governor's desk for his signature. Witnesses will not be called from this point on in the legislative process. Our last opportunity to have a positive impact on this bill will be to submit a final round of letters of support to either the Assembly floor or the governor. My thanks to President Laferty, who quickly wrote letters of support for SB 1623 to the committee chair, co-chair and other committee members. In the meantime, Bill Phillips, Pattie Lough, and I will be working on some loose ends that require our attention before the Appropriations Committee meets in August. I will continue to keep the Board advised on this important issue.

Thank you to the President and the Board for the opportunity to serve you and the general forensic community in this capacity.

Respectfully submitted, Kenton S. Wong, D-ABC CAC Liaison - Forensic Alcohol Advisory Committee

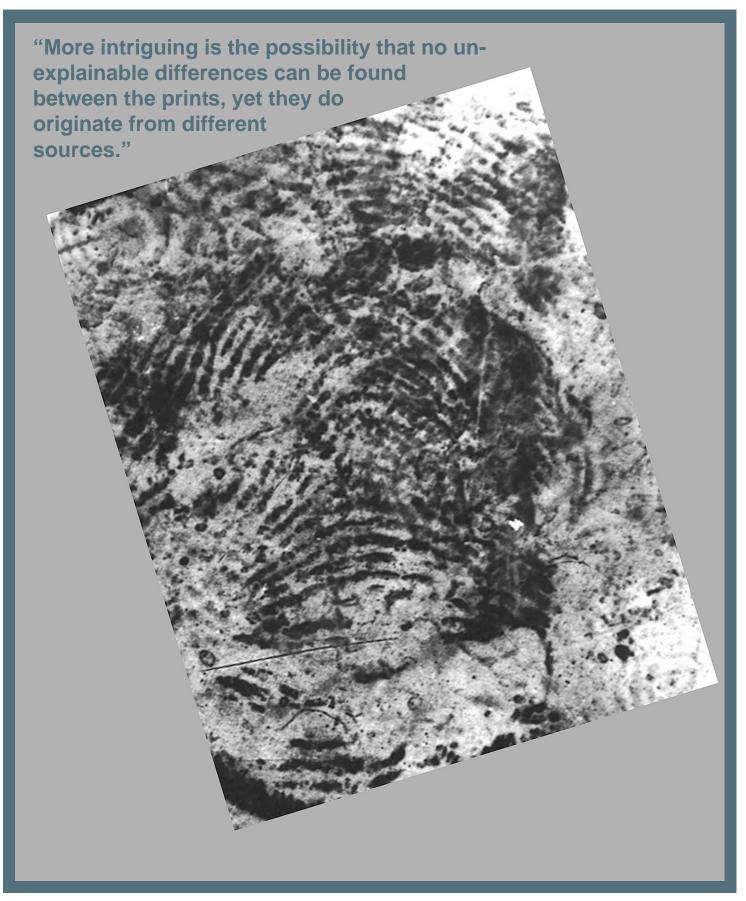


Figure 1. Above: The latent print from the Madrid bombing case. Right: The comparison print.

norah rudin & keith inman • the proceedings of lunch

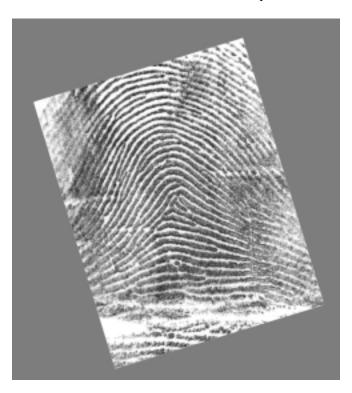
Fingerprints in Print:

The apparent misidentification of a latent print in the Madrid bombing case.



The revelation that a fingerprint misidentification had been made in a high profile international case was just being revealed through the media as we were writing last quarter's POL. Although we considered changing the topic so that we could react in a timely fashion, we ultimately decided to let the dust settle and see what other information might emerge. Several months later, we are satisfied that we have as much information as will be released to the public in the short term, and feel justified about commenting.

We initially invite Pete Barnett to join in the discussion since he has already indicated some clear opinions (Barnett, 2004). We also invite Simon Cole, assistant professor in the Department of Criminology, Law, and Society at U.C. Irvine, to comment for a slightly different perspective on the matter. Dr. Cole is a sociologist who studies science, in particular forensic science, and specifically fingerprinting (1998, 1999, 2001, 2003a, 2003b). We are interested in his input about the cultural issues that color both the practice and understanding of friction ridge analysis. Because it proves impossible for everyone to be physically present in the same room at the same time, we start with lunch at the Oakland Museum Café with Pete. We collect our salads and find a corner table where we hope not be too much of a distraction to the other diners who we assume must be there for a more refined experience than



we are about to deliver. Perhaps the slightly too loud live jazz will inspire us to pinnacles of brilliant thinking.

At a later date, Pete and Norah meet Simon for coffee in San Francisco, where he fortuitously is attending a meeting. Sitting at an outdoor café just outside the entrance to Chinatown, our discussion is punctuated by parade drums, cable car bells, and car alarms. Fortunately the ever-present carpet of pigeons decide that our various iterations of caffeine and alcohol are not to their taste and give us a reasonable berth.

Any discussion that depends mainly on media reports must be prefaced by the disclaimer that we have no specific knowledge of the actual events of the case. As such, our discussion must be limited to general topics inspired by the case at hand, and any opinions we might have could change with additional information. It is promised that an International Panel of Fingerprint Experts (FBI Statement, Zaitz May 26) will be appointed to review this case. However, this will obviously take some time. Nevertheless, we believe that the timely discussion itself is an important professional activity. Newspaper articles in the New York Times, the Oregonian, and the Seattle Times provide the most comprehensive summary of such public information as has been released. The prints themselves, as well as a summary of the case and some discussion can be found on Ed German's Latent Print Examination web site (www.onin.com/fp). A more extended discussion by fingerprint examiners can be found on Kasey Wertheim's CPLEX web site (clpex.com). The FBI press release is reproduced in Sidebar 1. The prints themselves are reproduced in Figure 1.

Was an error made?

At first blush, this would seem a trivial question. Conventional wisdom has it that three (current or former) FBI fingerprint examiners all managed to misidentify the questioned print with great confidence; the Material Witness Order cites "in excess of 15 points of identification" (Werder). Ken Moses, an independent expert hired by the court, also misidentified the print, but apparently with somewhat less confidence (Zaitz, May 25, 26). It was the persistence of the Spanish examiners that convinced the FBI to take another look and eventually reverse themselves. Only in the face of a purported identification by Spanish experts to another man, Algerian national Ouhnane Daoud, did the FBI admit to an erroneous identification (Zaitz, May 26). Specifically, the FBI press release states that "... the FBI lab has now determined the latent print previously identified as a fingerprint of Mayfield to be of no value for identification purposes. This morning, May 24, 2004, the FBI LPU withdrew its previous fingerprint identification" (FBI statement). Although the NYT article states that the FBI eventually agreed with the match to Daoud, (Kershaw, June 5) this is never specifically mentioned in any public FBI documents of which we are aware. This suggests the seemingly untenable position that the print that was originally matched with 100% certainty to Mayfield actually had no value, except to match to Daoud. We look forward to clarification of this paradoxical logical fallacy by the promised *International Panel of Fingerprint Experts*.

Pete suggests that just because the FBI now says an error was made, that does not mean the original identification was incorrect. Had the Spaniards not matched the print to Daoud, the identification to Mayfield would have stood; it would not have been classified as an error. Norah wants to know what is the definition of an error in this situation. Keith opines that we need to consider at least two possible levels of error. The error could be purely technical; for example, the two prints being compared in fact show significant differences that must exclude them as having originated from the same source. More intriguing is the possibility that no unexplainable differences can be found between the prints, yet they do originate from different sources. Conventional fingerprint doctrine would have us believe that the latter situation is impossible. Simon reminds us that fingerprint examiners quote a "zero error rate" for the "technology" based on the "fact" that all fingerprints are unique. While we could spend an entire POL just dissecting this statement, for the purposes of the present discussion, we note that it would seem to be irreconcilable with the reported facts of this case.

Although other examiners have since opined that clear exclusions exist (Heath, June 3, 8), and we ourselves have examined copies posted on the Internet (http://www.onin.com/ fp/problemidents.html#madrid), Monday morning quarterbacking is obviously not useful to understand how the original examiners came to their conclusions. Simon suggests that the relatively recent (in the history of fingerprint comparison) introduction of the AFIS database may, in fact, contribute to erroneous identifications. A computer search collects a small group of reference prints that have been selected as similar to the questioned print for examination by a human expert. Both technical (the prints are already very close) and psychological (the examiner may believe on some level that a match must be among the group) considerations may serve to raise the number of false positive matches called under such circumstances. As we discuss in more detail later, the fact that AFIS systems are putting the most confounding comparisons in front of the analyst changes the dynamic of the exercise; both a greater skill level and a higher quality print are required to distinguish between very close matches (Kramer, May 22).

Pete proposes that the deceptively simple question of whether an error occurred does not have an easy answer. In fact it is probably at least two separate questions, 1) Was the basis of the FBI's original opinion a reasonable one given the state of the art of friction ridge analysis, and 2) Was it Mayfield's fingerprint?

Assuming an error was made, what was it?

Concentrating on the first of Pete's two questions, we wonder where in the process of recognizing, processing, transmitting, and comparing the print might the examiner(s) have gone wrong? Pete again suggests that at least two components exist, the "technology," and the person using the technology. He clarifies that, although some technology is used in visualizing a latent print, he really means the technology used in analyzing the print. To clarify, he analogizes the visualization and collection of the print to the isolation of DNA; it just gets the

The FBI Response:

For Immediate Release: May 24, 2004

Washington D.C. FBI National Press Office (202) 324-3691

Statement on Brandon Mayfield Case

After the March terrorist attacks on commuter trains in Madrid, digital images of partial latent fingerprints obtained from plastic bags that contained detonator caps were submitted by Spanish authorities to the FBI for analysis. The submitted images were searched through the Integrated Automated Fingerprint Identification System (IAFIS). An IAFIS search compares an unknown print to a database of millions of known prints. The result of an IAFIS search produces a short list of potential matches. A trained fingerprint examiner then takes the short list of possible matches and performs an examination to determine whether the unknown print matches a known print in the database.

Using standard protocols and methodologies, FBI fingerprint examiners determined that the latent fingerprint was of value for identification purposes. This print was subsequently linked to Brandon Mayfield. That association was independently analyzed and the results were confirmed by an outside experienced fingerprint expert.

Soon after the submitted fingerprint was associated with Mr. Mayfield, Spanish authorities alerted the FBI to additional information that cast doubt on our findings. As a result, the FBI sent two fingerprint examiners to Madrid, who compared the image the FBI had been provided to the image the Spanish authorities had.

Upon review it was determined that the FBI identification was based on an image of substandard quality, which was particularly problematic because of the remarkable number of points of similarity between Mr. Mayfield's prints and the print details in the images submitted to the FBI.

The FBI's Latent Fingerprint Unit will be reviewing its current practices and will give consideration to adopting new guidelines for all examiners receiving latent print images when the original evidence is not included.

The FBI also plans to ask an international panel of fingerprint experts to review our examination in this case.

The FBI apologizes to Mr. Mayfield and his family for the hardships that this matter has caused.

evidence to a point where it can be analyzed. The instrumentation that is used to analyze a print is a person's brain, analogous to a genetic analysis instrument. Pete suggests that in both cases the details of the analysis are somewhat opaque. In DNA, a person looks at the data, and performs some interpretation and comparison leading to a conclusion. This is no different than what a fingerprint examiner does, except in fingerprint comparisons, the person *is* the technology, and the analytical instrument is the human brain. The processes of analysis and interpretation are functionally inseparable.

Norah observes that the inability to separate the technology from the person in any of the comparative forensic disciplines complicates our ability to troubleshoot the source of errors. Pete pinpoints the source of the difficulty; if something is wrong with the technology, then it applies to all cases; whereas if the technology is reliable (when used properly), then a misidentification is the fault of the individual. Simon observes, again, that the statement that the technology has a "zero error rate" because all fingerprints are unique tries to connect two concepts that are unrelated. Our (unproven) belief that all individuals can be distinguished by a high quality complete set of inked prints does not categorically lead to the conclusion that the technology (the examiner's mind) used to compare a latent print to a reference print is infallible. The statement confuses the general potential for individualization with the specific analysis of the evidence in each case.

Keith observes that the FBI statement that the print was of no value conveniently circumvents questions about both the technology and about personal responsibility. It transforms the error into one of judgment about the quality of the evidence and deflects scrutiny and potential criticism of the actual comparison. When the examiner(s) looked at the best evidence, the technology worked and they came to the "correct" conclusion. Interestingly, the FBI examiners reportedly declined to examine the truly original evidence, the latent print visualized on the blue plastic bag, on their first visit to Spain when it was still available. (Kershaw, May 25, June 5, Zaitz May 26) By the time they traveled to Spain for their second review, it had apparently been "destroyed" by continuous testing (Kershaw, June 5). The best evidence remaining seems to be a digital photograph taken of the print.

Pete observes that input data for any type of physical evidence can be non-optimal. The job of the examiner is to recognize when this is the case and to apply the limitations to the interpretation and conclusion. He opines that if the image looks like a fingerprint, then it is nominally sufficient for comparison. However a limitation may be that it lacks sufficient information to be potentially individualizing. The current state of the practice rejects any such notion. Keith wants to know exactly what aspects of the image are unclear or obscured that categorically reduce its comparison value to zero. He adds that the fall-off-the-cliff culture of fingerprint comparison—any uncertainty about source defaults to a useless print—contributes to the seemingly untenable situation in which the very same print could be deemed both a match and of no value.

Simon raises the question that is likely to become the focus of the investigation: What did each of the examiners know and when did they know it? Specifically, at what point did Mayfield become a "person of interest?" If any of the examiners were aware of the focus on Mayfield, did it influence their conclusions? We can't help but wonder how a print that previously was sufficient to make a "100%" identification suddenly loses all its value. Does the fingerprint community have a con-

sensus document that articulates specific criteria that determine "value?" How is it that it suddenly lost all value when the Spanish matched it to another viable suspect? As uncomfortable as these questions may be, they must be addressed. We await the report from the International Panel and hope it will provide clarification on these issues.

Assuming an error was made, who was responsible?

We've already discussed technological error versus personal error. This is a slightly different question, perhaps pertaining more to review, confirmation, and the general culture of friction ridge analysis. In spite of the claim of a "zero error rate" for fingerprint analysis, most of us expect people to occasionally make mistakes; it is an inevitable feature of the human condition. What is stunning about this case is that apparently four different examiners who were not only well-qualified, but highly experienced, and well-respected within the fingerprint community, apparently made an incorrect identification on the same print. (FBI Statement, Zaitz, May 25) The initial match was made by Senior FBI fingerprint examiner Terry Green. It was confirmed by his supervisor, FBI fingerprint specialist Michael Wieners, and also by retired FBI examiner John T. Massey. (Kramer, May 25b) The Court separately hired Ken Moses of Forensic Identification Services, who verified the ID. (Kramer, May 25b, Crombie May 25) This clearly takes the misidentification out of the realm of a single individual committing an isolated error.

We can't help but wonder how a print that previously was sufficient to make a "100%" identification suddenly loses all its value. Does the fingerprint community have a consensus document that articulates specific criteria that determine "value?"

Keith opines that the mistake was magnified from the individual, through the institution, and into the system; two individuals within (or associated with) the institution confirmed the match, as did an independent examiner. In this instance, the system failed. Norah wants to know if that means that the "science" is not reliable or if the failure is organizational. All of us agree that the best check of the veracity of a conclusion is an independent review. In this case, however, that check clearly failed. Does that mean there is something wrong with the criteria used for comparison, in the way in which the reviews were conducted, or both? Or, as the FBI has maintained, was the error solely in the criteria used to determine if the print was of sufficient quality to warrant comparison. Pete reminds us that just because an independent review is the best check doesn't mean it is foolproof. No wholesale accusation has

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emerged that any of the experts were fundamentally unqualified, yet they all apparently made, not only an error, but the same error. This suggests either that the science/art of finger-print comparison is perhaps not as reliable as conventional wisdom would have us believe, or that the review process, both institutional and systematic, failed, or both.

Simon introduces us to a concept he calls "presumption of competence." If exposed errors are the only way of determining incompetence, then we are left with the less than satisfying criteria for competence of someone who has never made an error (that has been exposed). Conversely, if competence is defined by passing proficiency tests, or certification, or working for a government laboratory, how does this affect our confidence in these criteria when such an individual makes a mistake? He suspects that, in spite of the claim that the FBI has made only one error in 79 years (Kramer, May 25a, Wertheim, May 26), many more errors exist than have been exposed.

Assuming an error was made, how and why was it made?

All three FBI examiners and an independent examiner came up with, arguably, the "wrong" answer in this case. How is this possible? When the FBI first received the image of the print from the blue plastic bag ostensibly associated with the Madrid bombing, they apparently had no obvious suspect in mind. The print was searched in AFIS and a group of about 15 possible candidates returned for closer examination by a human being (Kramer, May 25a,b, Murphy, May 28). Just because AFIS returns a group of prints does not mean that the true match must be among them. Frequently, however, it is. Did the primary FBI examiner, Terry Green, subconsciously assume that the true match must be among the inked prints returned by AFIS? Because he was the first to compare the evidence and reference prints, Green was apparently the only examiner to perform a truly blind test. According to media reports, the two subsequent FBI examiners, and certainly Ken Moses, knew that a match had been called (Heath, June 3, 8). How much did this knowledge influence their conclusions?

Pete reminds us that, in this business, no guarantee exists that we will always come up with the "right" answer. Keith goes on to say that, counter to the lay community's understanding that science provides only factual information, it is fraught with uncertainty and ambiguity. Our struggle is always to identify and quantify the uncertainty. This is particularly true of forensic science because we have only limited information about the often-compromised samples recovered from a crime scene. The culture and practice of friction ridge analysis leaves no room for this uncertainty; a print is either a match, an exclu-

sion, or of no value. Simon points out that this is one factor that has contributed to a growing tension between the fingerprint community and other forensic disciplines. It is also creating a hole from which it is becoming increasingly difficult for fingerprint examiners to escape. Any attempt to move toward a statistically based assessment of strength casts some aspersion on the current state of the practice. None of us question that this is a difficult dilemma.

Pete brings forth the uncomfortable fact that we are all influenced, either chronically or acutely, by the milieu in which we work. We do our best to take precautions, but we are not always successful. Keith mentions the Risinger article (2002) which inevitably comes up in any discussion of possible subconscious observer bias. Again, we categorically disagree with the suggestion of Risinger et al. that all criminalists should work blind; it precludes asking the intelligent and relevant questions that must anchor a useful analysis. And it obviously didn't help Mr. Green (assuming no information about Mayfield had been brought to his attention before he made the initial identification). Our best, although admittedly imperfect, solution is for the internal reviewer(s) to perform a blind analysis. Although it is impossible to go back in time, we wonder if Messrs. Wiener, Massey and Moses would have made an identification, or even concluded that the print was of sufficient quality to compare, if they did not know of Green's match and perhaps of other information subsequently released about Mayfield?

Pete proposes that part of the cultural problem with review, either internal or independent, is the mindset that anyone who disagrees with you is either incompetent or dishonest. This leaves no room for a legitimate difference of opinion. Keith summarizes this part of the discussion by invoking the metaphor of the elephant in the room about which no one will speak; we must admit that, as part of being human, we are influenced by our surroundings. The best we can do is keep track of the elephant and acknowledge its presence. The solution of constructing a room so small that the elephant cannot enter runs the risk of so severely restricting our analysis that we can never draw a useful conclusion.

Assuming an error was made, what should have been done differently?

Like the previous questions, this question can be divided into the specific and the general; should some overall change be made to the way fingerprint comparison is performed, or was this an isolated instance in which a chain reaction breached containment? Clearly, an extended discussion of the basis for

A bomb explodes on a train outside Madrid killing 191 people and injuring 2,000 others. Spanish police send photographs of several fingerprints found on a plastic bag near the scene of the attack to law enforcement agencies in the United States, Britain and France.

The F.B.I. notifies the United States attorney in Portland, Karin J. Immergut, that the match between the Madrid print and Mr. Mayfield's print is "100 percent."

The F.B.I. notifies the Spanish police that one of the prints sent from Spain matches Mr. Mayfield's left index finger, and sends them copies of Mr. Mayfield's print for verification.

After conducting their own tests, the Spanish police notify the F.B.I. that Mr. Mayfield's print did not match the print taken at the scene of the attack.

F.B.I. officials meet with Spanish law enforcement officials in Madrid to discuss their disagreement on the fingerprints. friction ridge comparison is beyond the scope of our discussion, as are the specific criteria for determining whether a print is of sufficient quality to be compared, and the particulars of digital imaging. Nevertheless, one individual can always make a mistake. So we confine our comment here to an issue that has threaded its way throughout the fabric of our discussion, the issue of review. Simon opines that one of the least scientific and most problematic aspects of friction ridge analysis is the lack of case-specific documentation. Without what Norah calls "stated objective criteria," it is impossible for two examiners to have an intelligent discussion about why they might disagree about a certain print comparison. Simon adds that it also precludes an effective post-mortem in cases where an error is exposed; how can effective change be instituted if it is impossible to determine exactly what led to the error? We all agree that, instead of "verifying" the results of the primary examiner, the subsequent readers should have performed their own analyses. And unlike the primary examiner, they should have been blind both to the results of the primary examiner and to the facts of the case. This one difference might have changed the course of this particular case.

Although it is impossible to go back in time, we wonder if Messrs. Wiener, Massey and Moses would have made an identification, or even concluded that the print was of sufficient quality to compare, if they did not know of Green's match and perhaps of other information subsequently released about Mayfield?

An error was admitted, how should the community react?

To Pete, this is really the crux of the issue. Regardless of the nature of the error or even the veracity of the original identification, the FBI says they were wrong; they withdrew their conclusion that the print on the bag containing the detonators came from Brendan Mayfield. What kind of reaction should we expect from the community in such a situation? Norah wants to know who is "the community"? Pete says, let's start with the fingerprint community. In the main, there has been a deafening silence. One of our colleagues has suggested that reports of forensic errors have become so common that this is old news, hence the apparent apathy. The reaction from the fingerprint community, at least as assessed from web chatter, has been largely defensive; circle the wagons against the attack that is sure to come. The immediate concern seemed to be how the rest of the fingerprint community could distance themselves from the growing scandal. How should they respond in court when confronted with the glaring error made in a high profile case with international consequences (Wertheim, May 26)?

A lone voice of overt criticism came from retired Scotland Yard examiner Allan Bayle, hired by Mayfield's attorneys to review the work in this case after the fact. Bayle, who has since analyzed the Madrid and Mayfield prints at the request of Mayfield's attorneys, had harsh words of criticism for the FBI (Heath, June 1,3,8). In addition to dismissing their proficiency test program as laughable, and their review process as "a sham," he accused the FBI of failing to look at the whole print, missing obvious differences. According to Bayle, no competent examiner should have called the print from Madrid a match to Mayfield (Heath, June 3,8).

Simon observes that the way the fingerprint community traditionally handles mistakes is to disown or excommunicate the individual who made the error. Since that person is no longer part of the community, the "error-free" reputation remains unsullied. They are now in a tough spot. The FBI, rightly or wrongly, sets the standard for fingerprint examination in the U.S. (Zaitz, May 26). The community must now either embrace the error or excommunicate the FBI, as well as the independent examiner, Ken Moses. In some sense, the apologia has already begun. One of fingerprinting's most outspoken examiners, Pat Wertheim, claims that the FBI's record of only "one error in 79 years of practice" remains exemplary. (Wertheim, May 26) If only it were true. At a minimum, we know of at least two documented errors made by Massey, the retired examiner who verified the print, during his career at the FBI (Heath, June 1,3,8).

F.B.I. agents arrest Mr.
Mayfield and hold him as
a material witness without
charging him with any
crime.

The Spanish authorities determine that the fingerprint in question belongs to an Algerian, Daoud Ouhnane, who was being held in Spain for overstaying a visa.

The Spanish authorities notify the F.B.I. of their discovery. Mr. Mayfield is released. F.B.I. agents return to Madrid to verify the Outnane match The F.B.I. tells the Spanish authorities that it agrees with the Ouhnane match. Robert Jordan, the F.B.I agent in charge, above, announces Mr. Mayfield's case is thrown out. The F.B.I. officially apologizes to Mr. Mayfield.

Simon continues his observation that, although not everyone in the American fingerprint community is necessarily enthusiastic or supportive of the self-appointed leaders, their discontent has no voice. This may be in part because those who speak out are also excommunicated. When Dave Stoney, a highly respected academician, and one of the few published authors on the subject of statistical fingerprint models, criticized the current practice of friction ridge analysis, he was excommunicated as well. He doesn't perform casework on a daily basis was the charge. While this type of insular attitude is insidious to some extent throughout all of forensic science, it is markedly more pronounced in the fingerprint community. Pete offers that any admission of fallibility in fingerprint identification makes, not only the examiners, but the legal and judicial community uncomfortable. Even defense attorneys are used to accepting an identification as absolute. Any introduction of uncertainty, much less a quantitation of it, turns everyone's world upside down and threatens the basis for thousands of convictions.

We wonder what the *International Panel* will recommend. The FBI has aggressively spun the error as solely one of standards for the acceptance of digital prints, the most trivial of all possible explanations (FBI Statement, Zaitz, May 26, 30, Kershaw June 5). Write some more restrictive guidelines for qualifying prints as acceptable and the problem is solved. It would be unfortunate if the inquiry were restricted to just this aspect of the case. We hope the *Panel* will resist the urge to avoid confronting the false match itself. We hope they have the wisdom and courage to address the underlying issues rather than dismissing the error as that of just another renegade analyst (or 4 of them) who is not representative of the community.

An error was admitted, what should be the consequence and who should decide?

Pete feels strongly that there should be some consequence imposed on the FBI by an external agency. He suggested in a letter published in the last quarter's CACNews (Barnett, 2004) that ASCLD/LAB should revoke the FBI's accreditation. Both Norah and Keith reject this solution as inappropriate. While laboratory accreditation shows adherence to certain infrastructure requirements, and individual certification can demonstrate minimal competence, neither guarantee the correct answer in any particular case. Regardless, it is unlikely that the FBI violated any specific requirement in the accreditation audit document (for which they are coincidentally responsible), so we wonder what would be the basis for revocation of accreditation. Any number of professional associations (e.g. AAFS, IAI, ASCLD, ABC), could officially comment on the situation, but none have jurisdiction over the FBI. Part of the predicament is that it is often the FBI who stands in judgment of other agencies. Who oversees the overseers?

How should things be changed to minimize the chance of future errors?

We have already discussed the review procedures in this case, which is where we feel the real travesty may have occurred. Pete adds a final comment that laboratories should be more proactive in promoting competent review. All too often independent review is seen as something to resist rather than embrace. Although, as this case makes clear, it should not be seen as a panacea, it is still the best mechanism we have for minimizing errors.

Fingerprint examiners should avoid telling fact finders that the method itself is infallible even if the practitioners are not; the practitioners are, themselves, the method. Further, if fact-finders already hold the preconception that fingerprinting is infallible, otherwise known as *C.S.I.* syndrome, they should be disabused of it.

What other changes might be considered to minimize the chance of false fingerprint matches in the future? While we realize that a century of tradition is not easily overturned, that does not stop us from offering suggestions. Keith leads off by introducing the concept of limitations. The culture of fingerprinting, more than any other forensic discipline, encourages the idea that an identification is absolute and unquestionable. The first step would be to acknowledge fallibility. The next would be to introduce the idea of uncertainty, and the quantitation of it. This is easier said than done, but it is a requirement for friction ridge analysis to begin to make the move from art to science. Norah suggests that an initial step would be to change the language often used to describe a fingerprint match, "the print came from this person and no other." Pete offer that, at a minimum, a claim of identification should be clearly qualified as an opinion rather than fact.

Simon continues in the same vein by insisting that any claim of a "zero error rate" be discontinued. It is disingenuous at best, misleading at worst. Fingerprint examiners should avoid telling fact finders that the method itself is infallible even if the practitioners are not; the practitioners are, themselves, the method. Further, if fact-finders already hold the preconception that fingerprinting is infallible (otherwise known as C.S.I. syndrome, Walsh, 2004), they should be disabused of it. Simon opines that fingerprint matches should be presented, not as scientific determinations, but as opinions based on experience the practitioner has developed by looking at fingerprints. It should be made clear that our collective belief that a match is individualizing, is just that, a belief, and cannot at present be quantified in any meaningful way. However, he wonders how such a radical change can realistically take place, at least in the short term, as it would essentially negate more than 100 years of fingerprint history.

One issue that has been outlined in sharp relief in this case is the evaluation and significance of cold hits from a database. This is not specific to fingerprints, but is of concern to any forensic discipline that is now maintaining databases. DNA, in particular, faces the same serious concerns as fingerprints

because the convicted felon (and in some cases arrestee) database of each (CODIS and AFIS) contains biological information that leads directly back to a person. Not so long ago, reference samples were only taken from someone against whom there was some reasonable circumstantial suspicion. While not every suspect was guilty, the idea of probable cause at least decreased the odds of false positives. Keith's pithy comment is that, if most suspects are guilty, all the analyst need do is call a match every time and, through no fault or competence of her own, she will be right most of the time. In contrast, the increasing use of cold database searches essentially labels all people represented by samples contained in a database as a priori "suspects" every time it is searched. This fact alone greatly amplifies the impact of false matches; it is virtually impossible to accidentally get it right when comparing evidence to reference samples identified solely by their existence in a database. And the more samples accumulated in a database, the greater the chance that an analyst will encounter the analytical challenge of a close, but imperfect, match that is not the true source of the evidence.

How might this affect future cases?

Sadly, none of us expect this case to have a significant impact on the practice of forensic science in the near future. Much will depend on the tone and content of the report to be issued by the International Panel. Whether this case simply provides a perfunctory challenge for the defense attorney crossexamining a fingerprint expert, or whether real and meaningful change occurs, will depend both on the judicial system and the community of friction ridge examiners. The most effective sanctions often come from peer pressure within a community rather than from official bodies. Ideally, this situation will stimulate an open discussion within the fingerprint community, as well as the larger forensic science community. Eventually, the fingerprint community will have no choice but to make some substantive changes to how it does business. The question is whether they will rise to the occasion or wait for the courts force the issue.

Suggestions for light and non-controversial topics for next quarter's POL gratefully accepted.

References

Barnett, Peter, Open letter to ASCLD/LAB board of directors, *CACNews*, pg. 8, 3rd quarter, 2004.

Cole, Simon. "What Counts for Identity? The Historical Origins of the Methodology of Latent Fingerprint Identification," *Science in Context*, Volume 12, Number 1, pp. 139-172, 1999.

Cole, Simon. Fingerprinting: The First Junk Science? *Oklahoma City University Law Review*, Volume 28, Number 1, pp. 73-92, 2003a.

Cole, Simon. History of Fingerprint Identification in Nalini K. Ratha & Ruud M. Bolle (eds.), *Automatic Fingerprint Recognition Systems*, New York: Springer-Verlag, pp. 1-25, 2003b.

Cole, Simon. Suspect Identities: A History of Fingerprinting and Criminal Identification, Harvard University Press, 2001.

Cole, Simon. Witnessing Identification: Latent Fingerprint Evidence and Expert Knowledge, *Social Studies of Science*, Volume 28, Numbers 5-6, pp. 687-712, 1998.

Crombie, Noelle and Zaitz, Les, FBI apologizes to Mayfield, *The Oregonian*, May 25, 2004.

Editorial, The F.B.I. Messes Up, *The New York Times*, May 26, 2004.

FBI National Press Office Statement on Brandon Mayfield Case, May 24, 2004 Washington D.C.

German, Ed., Latent Print Examination, http://onin.com/bums/messages/37/38.html

German, Ed., Latent Print Examination, http://www.onin.com/fp/problemidents.html#madrid

Heath, David, and Bernton, Hal, FBI admits fingerprint error, clearing Portland attorney, *Seattle Times*, May 25, 2004.

Heath, David, Bungled evidence in Spain bombing shows FBI problems, *Seattle Times*, June 8, 2004.

Heath, David, FBI's handling of fingerprint case criticized, *Seattle Times*, June 1, 2004.

Heath, David, New Suspect named: Ouhnane Daoud, Seattle Times, June 3, 2004.

Kershaw, Sarah and Lichtblau, Eric, Spain Had Doubts Before U.S. Held Lawyer in Madrid Blasts, *New York Times*, May 26, 2004.

Kershaw, Sarah, Lichtblau, Eric, Fuchs, Dale, and Bergman, Lowell, Spain and U.S. at Odds on Mistaken Terror Arrest, *New York Times*, June 5, 2004. (*This article provides a detailed timeline of events*)

Kramer, Andrew, Court dismisses case against Mayfield, *Associated Press*, May 25a, 2004.

Kramer, Andrew, FBI Apologizes to American Lawyer, Associated Press, May 25b, 2004.

Kramer, Andrew, Portland case puts fingerprint technology under gun, *Associated Press*, May 22, 2004.

Mnookin, Jennifer L., The Achilles' Heel of Fingerprint, *The Washington Post*, May 29, 2004.

Murphy, Todd, '100 percent' Wrong: How the FBI's arrest of suspected terrorist Brandon Mayfield unraveled, *The Portland Tribune*. May 28, 2004.

Risinger, D. Michael, Saks, Michael J., Thompson, William C. and Rosenthal, Robert. The Daubert/Kumho Implications of Observer Effects in Forensic Science: Hidden Problems of Expectation and Suggestion, *California Law Review, Vol. 90, p. 1, January 2002*

Walsh, Jim, Prosecutors: Crime shows blur reality: 'CSI effect' is raising juries' proof standards. *The Arizona Republic*, Aug. 29, 2004.

Werder, Richard. Application for Material Witness Order and Warrant regarding Witness Brandon Bieri Mayfield, May 6, 2004.

Wertheim, Pat A. http://www.clpex.com/board/threads/2004-Mar-15/1128/1129.htm

Wertheim, Pat A. http://www.clpex.com/board/threads/2004-May-21/1323/1334.htm

Wertheim, Pat A. http://www.clpex.com/board/threads/2004-May-21/1323/1343.htm $\,$

Wertheim, Pat A. http://www.clpex.com/board/threads/2004-May-26/1358/1358.htm

Zaitz, Les, FBI case against Oregon lawyer built on blurry fingerprint, logic; An inquiry into the false match in the Madrid attack shows how lapses kept the FBI wrongly focused on Brandon Mayfield, *The Oregonian*, May 30, 2004. (*This article provides a detailed timeline of events*)

Zaitz, Les, FBI traces fingerprint error, *The Oregonian*, May 26, 2004.

Zaitz, Les, Transcripts detail objections, early signs of flaws, *The Oregonian*, May 26, 2004.



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Bill Corazza Remembered

Retired BFS Manager Bill Corazza passed away suddenly on June 3, 2004. Initial indications are that he had a massive heart attack. Bill was a long-time BFS employee and will be missed by his colleagues and friends.

Bill began his career with BFS in 1972. His first assignment, along with Raymond Davis, was to establish the San

Rafael satellite Crime Laboratory. Together, they began the controlled substance, blood alcohol and toxicology programs in the new lab.

Bill was assigned to the Santa Rosa Laboratory when it opened in 1975. As a Criminalist in the Santa Rosa Lab, Bill worked some of the most complex Criminalistics cases in the disciplines of Firearms and Toolmarks, Trace, Biology/Serology as well as controlled substances and blood alcohol analysis. He earned a reputation for excellent work in the Lab and honest, understandable, and effective testimony in court, often sprinkled with his trademark sense of humor. His hard work, concern for quality service, and sense of humor quickly earned him the respect and friendship of clients, attorneys and his peers alike.

During his time at the bench in the Santa Rosa Laboratory, Bill also contributed greatly to the mission of the

Bureau of Forensic Services through his participation in Bureau Technical Advisory Groups (TAGs) in the areas of Blood Alcohol, Firearms and Toolmarks, and Quality Assurance.

In the early 1990s, Bill was promoted to Supervisor of the Santa Rosa Laboratory. Again, his dedication to service and quality benefited the Santa Rosa Laboratory while he was at the helm. Through his hard work and seemingly endless hours, many of them on weekends, he laid the groundwork and administrative mechanisms to prepare the Santa Rosa Laboratory for ASCLD/LAB accreditation. He also worked tirelessly, over long hours, to maintain a reputation with clients for quality of work and excellence of service at the Santa Rosa Laboratory.

Bill was also "a man on a mission" when it came to quality of product and service on the bureau level. He was long-time member of the Quality Assurance TAG, and those who served with him will agree that he argued stubbornly for his vision of practicality, careful wording of mandates, and words such as "shoulds," "shalls" and "mays". He

seemed to have the ability to see into the future and envision the consequences of various options or actions. The Quality Manual that he was instrumental in forging has served BFS well. As the years have passed, Bills concerns about the importance of subtleties of wording and what should, and should not be stated in the Quality Manual have

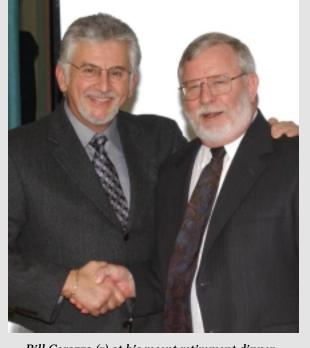
been validated.

In 2001, Bill promoted away from the Santa Rosa Laboratory to manage the South Coast Laboratories (in Freedom and Santa Barbara). His schedule while managing the South Coast Laboratories required hundreds of miles of driving each week and left him much less time with his wife and family. However, he was as positive an influence on the Freedom and Santa Barbara Labs as he was on Santa Rosa lab.

During his last year of employment with BFS, Bill came to Sacramento to help out in BFS Headquarters, working on various projects to assist the Bureau Chief Lance Gima. In December of 2003, he finally hung up his lab coat and joined the ranks of those in well-earned retirement. Bill was recognized for his dedication and service at a wonderful retirement party in Sacramento along with friend and colleague Fred Tulleners.

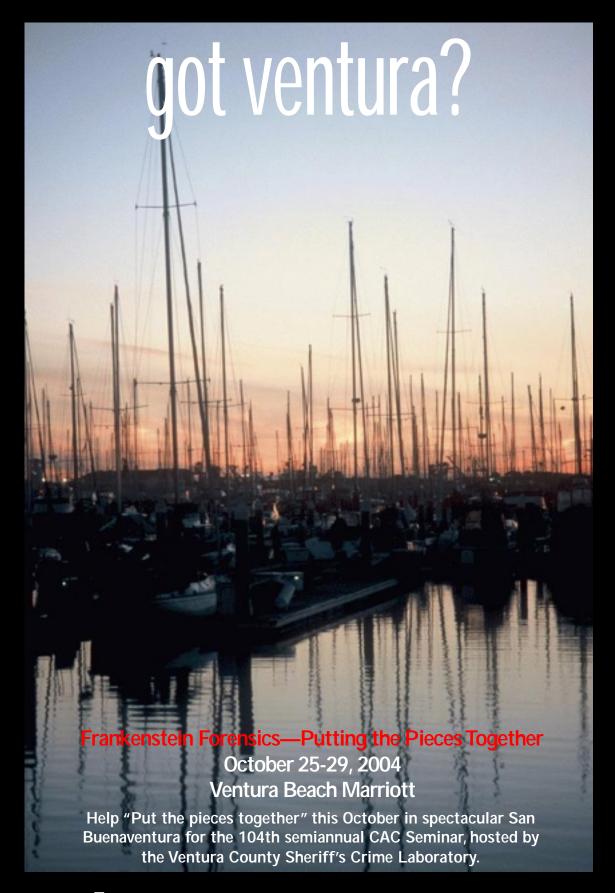
It doesn't seem fair that Bill had such a short time in retirement. His colleagues saw him more frequently during 2004, and they reported that he was a happy, relaxed and a much more rested person. But even in retirement, Bill felt called to serve his community, and he applied to become a member of the Sonoma County Grand Jury. He would have served the county well with wisdom, fairness, practicality, common sense and an eye to the future. It is a shame that we didn't get to see his positive influence in this arena.

Over the years, many have developed a deep respect, admiration, and fondness for Bill. He has been a good friend, mentor, and example, and BFS is greatly saddened by his passing. A memorial service was held in Rhonert Park, CA on June 7th with over 100 of his friends, family and colleagues in attendance. Bill's wisdom and sense of humor will be sorely missed.



Bill Corazza (r) at his recent retirement dinner.

John Yount, Supervisor Santa Rosa Regional Laboratory



Tentatively scheduled events include: Crime Scene Reconstruction Workshop (2 days with Jerry Chisum) • "Drugs & Driving" Low-level Drinking Study (2 days) • Rave Club Drugs Workshop • DNA Workshop • Basic Firearms Workshop • Costume Banquet