

News of the California Association of Criminalists • Fourth Quarter 2020



The **President's Desk**

jamie Lajoie



CAC President

No matter how big our individual labs get, there is always something that can be gained from learning how other labs do or don't do things.

A Deep Dive

As with all the recent CAC presidents, I struggle with writing these messages. And even more this time because I don't have any inperson meeting to draw ideas from. I can usually rely on those social interactions at conferences to spark interesting ideas about a current topic in the profession. My predecessors have indicated that they often found their inspiration from previous president messages. I am now three hours in on my search for inspiration and realize I have taken a deep dive into the historical president messages and CAC newsletters online. During this time where there is so much limitation on human interaction, I am finding research can be more effective than just sitting down and putting your thoughts together. So, I thought I might share with you some of the highlights of what I came across and see how history has a way of repeating itself even within our association. Besides, who wants to hear more about COVID-19 and how it effecting our profession? We already know the answer to that, it sucks.

The first online archived newsletters available is from 1971. The Presidents' Messages in these early years are very different than how they are now. They provide straight to the point information like where the next meeting would be held and information on what the different committees were working on. In the October 1971 edition, there is a blurb about designating a difference between a management group called the CMA from the CAC. The article agreed that the CAC and CMA had some common interest but reiterate some interests of the CAC were distinct. "The California Association of Criminalists is an association of forensic scientists whose common bond lies in furthering the cause of a unique scientific profession." (Tony Longhetti, President). During these early newsletters the association saw a growth of the membership from 79 members in 1967 to 155 members. There was a concern about communication with the growing number of members, so there was a call to stay in contact with the regional directors. Some of the more recent presidents' messages indicated that the CAC grew out of the need for one-man labs to have a connection with others in their profession. They recognized early on the need to bounce ideas off each other and hear about new innovations. I think that this need is still true for our membership. No matter how big our individual labs get, there is always something that can be gained from learning how other labs do or don't do things.

Reading through some of the early newsletters, I gained some interesting insights about the meetings from that time. The June 1971 newsletter accounted how the Northern Regional meetings were held on multiple dates with one day including having dinner at Spingers in Berkeley and that wives were invited. Luckily wives, along with husbands, are still invited to the CAC dinners! Another random fact I discovered was that the CAC has held a seminar on the *Queen Mary* twice now with the first being in 1974! I told you this was a deep dive, so stay with me.

Another interesting addition in the early newsletters was how people looking to be employed as a criminalist would put their qualifications in the newsletter in hopes that an agency would seek them out! Without the internet, the newsletter provided a great place to say, "Hey! I graduated and I need a job." Nowadays, one open position at a lab may see hundreds of applicants. And instead of posting those applicants qualifications, we provide the space on the CAC website for labs to post open positions.

Another stark difference between the association now and then was apparent in the June 1975 issue. There was a proposal that the Sem-

please turn to page 4

The CACNEWS. org



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The *CACNews*, *ISSN* 1525-3090, is published quarterly (January, April, July, and October) by the California Association of Criminalists (CAC).

The CAC is a private foundation dedicated to the furtherance of forensic science in both the public and private sectors.

Please direct editorial correspondence and requests for reprints to the editorial secretary.

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Submissions should be made in the form of Windows compatible files on CD or by e-mail. Alternatively, text files may be saved as plain ASCII files without formatting codes, e.g. bold, italic, etc. 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.



On the cover:

We love featuring Ed Jones' "Arranged Microstuff." This one is rich with "trace evidence" from exotic and everyday places. How many do you recognize? (Key on the next page.)

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President's Desk

I continued reading through the years and I came to a groundbreaking moment in 1977: The first female CAC president, Jan Bashinski.

inar meeting be held on a Friday, Saturday, and Sunday to allow new members to attend and not have to take off two work days. Then in 1976 study groups were being held once a month on a Friday evening. Can you imagine the response we would get if we did that nowadays? Times were different then, and the CAC, even early on, was always assessing what worked best for their membership at the time.

In a 1977 newsletter, I read through some snarky comments about the participation of members and contributing to the newsletter, and that it shouldn't only be about the salary survey. LOL! I didn't even know they did a salary survey back then. They also summarized the organization as: "what this all boils down to is that the Association is what you make it." Which I think is still true. Also in a 1977 issue, the smaller number of forensic scientists was apparent. The Contra Costa County Criminalistics Laboratory hosted a home-cooked spaghetti dinner meeting with the following incentive: "The technical program will consist of pool playing, cards, darts, dancing and sampling John Patty's concoctions at the bar and general carousing." While we could probably never fit a meeting in at someone's house now, this technical program shows that social interaction is integrated in our association's DNA.

I continued reading through the years and I came to a groundbreaking moment in 1977: The first female CAC president, Jan Bashinski. There are a lot of subsequent newsletters dedicated to her professional work and I encourage you read them, especially the 2004 newsletter that covers her death. I was just entering my professional career in 2004 and am grateful to her and other women who paved the way for more female presidents. It would be another 10 years before Faye Springer became the next female president. Faye continued the legacy of successful female presidents, and in order to continue to honor her contributions to the association and field, the board happily just granted her lifetime membership. With Jan and Faye paving the way, by my count we have had now 16 female presidents. When Catherine Currier becomes president next spring, it will be the first time the association has had four female presidents in a row. A great video on the early experience of women in criminalists is Margaret Pereira founder's lecture of Women in Forensics from October 1994 on the CAC website.

Another interesting thing I learned from this editorial journey is that many of the problems we struggle with now were being brought up long ago! As early as 1978 there was a discussion about certification being on the horizon along with a growing generalist vs specialist debate which reignited again in 1987. In June 1979 there was a call by the president for the newsletter to offer move scientific knowledge in print and not just at the meetings. At one point, the CAC was even being sued over the certification process. Drama! Finally, in the June 1980 issue, there was a call for fresh blood to serve on the committees to give the seasoned forensic scientists a break and encourage the newer members an opportunity to contribute. As times repeat themselves, it just so happens we have several new openings on committees currently that we need to fill. Check those open spots out on the CAC website and consider this a substitute for the usual in-person tactic of strong arming or impassioned persuasions.

As I passed through the remaining decades of material, the Newsletter became to take a more familiar form. Some

President's messages over the years were very short while some were very in-depth and thought provoking. And sometimes they were missing entirely, mainly in the late 1980s. I could make a joke here but I will refrain. Maybe it's all those 80s movies I grew up with. The late 1980s also brought the newsletter closer to the scientific information sharing platform that some of the originally board members were striving for along with a push towards a recognition that criminalistics was a scientific profession and not just a technical job. If you are looking for some good telecommuting reading, check out the June 1981 guest editorial.

The early 90s brought back the president message in each publication and the introduction of a president photo. The President's messages got longer and more and more specialized. Not surprising as the field was growing in that direction and not looking back. Greg Matheson's President's message talked about a familiar fear, especially in the current climate, when he talked about layoffs and budget reduction and how scary that could be if you thought this profession allowed for more job security.

The 2000s came and the President's messages were full of the applications of standardization, quality assurance, legislation changes for the profession, and fun federal reports about forensic science. We are still debating the challenges and restrictions that the modern-day forensic world demands compared to how things used to be done. The effects of these topics are both bad and good and I foresee a continued challenge to find a balance.

So here we now are in 2020. There are many common themes from decades past that still need to be discussed: who are we, what can we do for the profession, and where are we going next? The presidents and the board are also still unchanged in wanting to reach out to the membership and wanting the membership to reach out to us. While some things have not changed, there have been many great changes over the years that have made us better. We cannot let the fear of change keep us from always moving towards improving and providing the best for the organization.

With that being said, the biggest change that is coming is the proposed bylaws change to go from two seminars a year to only one seminar per year. Now with our virtual meeting capabilities we might be able to have more study groups throughout the year to include both the north and south together. While nothing can replace our in-person meetings and I look forward to them when they resume, I believe all the previous presidents would have wanted us to move the organization forward. I hope we continue to diversify our membership and our board. COVID 19 has given us challenges this year but if history has taught us anything, these challenges aren't really new. We will continue to change and adapt and will end up better for it. Thank you for joining me on my deep dive into a very brief CAC history and keep an eye out for CAC Fall online workshops being offered in October, November and December.

Jame

Disneyland of Ed Jones



Actual size

Colored candy prills

Microelectronic components

Crystal, gold, ruby, emerald, saphire, pearl, diamond, and marcasite

Small grains of colored sand

Colored sand and smaller gunpowder grains

Mouse bones from owl pellets

Seeds and microfossils from Rincon Hill in Santa Barbara County

Paint layers from auto repaint shop in Atlanta ca 1970



Glitter, microspheres and beads

1 mm ballpoint pen ball

Wristwatch light

Gold flake

Watch jewels (red rubies)

Faceted cubic zirconium

Large gunpowder particles

Euhedral minerals. (minerals with crystal faces)

Microfossils and micro-shells from all over the world

We ARE

jonathan **Charron**



CAC Editorial Secretary

While not our primary function, the love we have for what we do causes us to be impassioned teachers on the topic.

 $B_{\rm are}$ intrinsically related to the work that we do, many of the roles we serve in are somewhat secondary in nature to the day to day work that we perform.

We are scientists. This is the core of what we do and who we are. We approach casework with an objective and unjudging eye. We spend much of our day at a bench, gloved and goggled, applying scientific techniques and instrumentation to evaluate evidence. I feel that this hat is what comes to mind when the public thinks about what we do. That is, of course, when we are not looking around dark rooms for fingerprints with a flashlight (think *CSI*). While easily our primary function, this is only one of the many hats that we all wear.

We are teachers. My laboratory has formed many relationships with the community. One byproduct of this relationship is that we often host tours to various organizations. It is a rare month (before COVID-19) that we do not have a chemistry club from the local university, or a crew of aspiring lawyers tour our facility. During these tours, the group is guided to each unit where a criminalist from each section eagerly talks about the work that we do. We try and limit our breaths so we can teach these visitors as much as we can in the short time they are here. While not our primary function, the love we have for what we do causes us to be impassioned teachers on the topic.

We are experts. Our expertise is tested in a different venue than most other careers... while under oath. We must understand the science behind the analyses we perform, but our understanding of that one aspect is not enough. While on the witness stand, we may also be called to explain how that science has been tested, challenged, and upheld in courts of law. We have the unusual necessity to explain how we are qualified as an expert and must always be prepared to defend the value of our testimony both personally and for the discipline as a whole.

We are researchers. One of the most interesting parts of the work that we do is we frequently see things that we have never seen before. We may see an uncommon drug, a strange alteration on a firearm, or an unusual fiber on a piece of evidence. As criminalists and scientists, we are inclined to not just stop and say, "That's weird". We will instead seek out details through researching books, journals, internet sources, and sometime even YouTube. I am often shocked to find the content about firearm conversions you can find on that platform! These little bits of research we do fuel our conferences and study group meetings, and sometimes even drive us to publish our findings. The point is that we are not programmed to leave stones unturned, and know that if we have seen something unusual, there is a chance that it will show up again.

We are family. We often spend more time with each other than we do with our families at home, and the time we share is spent very differently. We spend the week with each other working on evidence related to a victims most horrific day. We take a coffee break with each other to try and calm our nerves before heading to court to testify. We share a sigh (or expletive) as that 2am crime scene call comes to wake us and have us leave the safety of our homes. And we share a cry when one of our own has their life taken too soon. We work in a world dealing with things that many people will thankfully never see, and those experiences we share while we deal with that world helps us create bonds with each other that last a lifetime.

While all our heads may be heavy from the many hats we don, I ask you all to consider wearing one more hat. The CAC has many available spots to fill on a variety of different committees. Serving on a committee is a wonderful way to support the association while developing new relationships within our community. Many of the roles do not require a tremendous amount of time, but the time that you spend will make our association that much more amazing for us all! And to all of you that are currently serving as a committee member, study group chairperson, board member, or as a presenter at any of our events... Thank you for your service and for making the CAC the amazing organization that we are! Stay strong and safe out there.

Juther & China

Eric Halsing:

On Being Selected for the AAFS Regional Award

Remember going out and doing things? Remember movies and restaurants and haircuts? It's been over six months and I only have a passing memory of how it feels to be among others. We can all remember the *fact* that we did those things, and we can even see those memories in our mind's eye most of the time. But it's the *feeling* of doing those things



Eric Halsing (r) accepts the AAFS Regional Award from Zeno Garadts.

that has nearly slipped away completely, at least for me. It was mid-March when everything changed. Which is probably why I recall my February trip to Anaheim to attend the 72nd American Academy of Forensic Sciences (AAFS) Annual Scientific Meeting so vividly and with such fond memories.

I had not planned to attend this year's AAFS meeting. Despite the fact that it was taking place a mere 425 miles from my home, and even though I became a member of the Academy in 2005 but have only attended the annual meeting once, I had decided to skip this year's meeting due to scheduling and financial obligations. But all that changed when I was contacted by CAC President Alice Hilker late last year to inform me that I had been chosen by the CAC board of directors as the recipient of the AAFS Regional Award for 2020. Since this award consists of paid registration to the upcoming AAFS meeting, a plaque presented at the AAFS Awards Ceremony, and invitations to several receptions during the meeting, it appeared I would be heading south to Anaheim after all.

I was extremely honored and surprised to be chosen for several reasons. First, only eight CAC members have ever received this award before (it is only given to a member of the CAC once every four to six years because AAFS grants it on a rotating basis to two or three regional associations each year). Furthermore, the list of previous winners includes individuals with whom I am humbled to be associated. But I was also surprised to receive this award because, as the CAC website describes it, this award was established by AAFS "to acknowledge, recognize, and encourage the younger/newer members of the profession who contribute significantly to the forensic sciences." Being neither a "younger" nor a "newer" member

of this profession, I never would have suspected I would be considered for such a prestigious distinction. And although it was explained to me that I was chosen, in part, because of the presentation I gave at the Spring 2019 CAC seminar and because of my role in the two recent admissibility hearings that talk was based on, I have never thought of myself as contributing significantly to our field. But be that as it may, I remain very grateful and appreciative.

In many ways, our CAC seminars are a microcosm of the AAFS meeting. There are the same opportunities to learn and to connect with colleagues, just on a much smaller scale. If ever you have occasion to attend an Academy meeting, I highly recommend it because it is an impressive affair. There are several thousand attendees, many dozens of exhibitors and vendors, and hundreds of posters. To give you an idea of the scope of this gathering, there were over 1,275 presenting authors at this year's meeting. Just imagining the task of organizing a conference of this magnitude is enough to make your head spin. I can put it no plainer than to say, to a geeky scientist such as myself, it is simply awesome.

I decided to attend the workshop entitled *Genetic Genealogy: Science, Law, and Ethics*. My entire 19 years as a criminalist have been spent working in the DNA discipline. Since 2018, several of my cases, including a few involving the Golden State Killer, have been solved by genealogy. And as it is such an exciting, impactful, and perhaps somewhat controversial method of using DNA to answer case questions, I was interested to hear the insights shared by the speakers. I particularly enjoyed hearing the defense perspective from Criminal Defense Attorney Russel S. Babcock. In my career, as is likely the case in the majority of your careers, I have more often been in contact with prosecuting attorneys. So whenever I have the opportunity to hear all viewpoints, I always appreciate it.

As I expected, the general session was replete with excellent talks taking place simultaneously in different rooms. My personal interests tend to be presentations where science intersects with the law. So I alternated between the Criminal-

"In many ways, our CAC seminars are a microcosm of the AAFS meeting. There are the same opportunities to learn and to connect with colleagues, just on a much smaller scale."

ists, Jurisprudence, and Pathology/Biology sections. I was also asked by several of my colleagues to attend specific talks to hear about burgeoning methods in DNA analysis such as Massively Parallel Sequencing (MPS), microchip DNA sequencing, and microhaplotypes. I particularly enjoyed a talk on "Selfie-Related Deaths in Italy" and one addressing the "Assessment of Stress, Vicarious Trauma, Burnout, and Resiliency in Criminalists." There were so many interesting presentations I wanted to attend that I was obliged to spend some time beforehand deciding among them. However, since the 2021 annual meeting

continued

Eric Halsing, cont'd

has gone virtual, it seems that attendees won't have to choose between sessions taking place concurrently.

As great as the presentations were, the social aspects of the meeting should not be overlooked. After 19 years, I have developed many great professional relationships with people who do not work at my laboratory and, therefore, our paths seldom cross. Accordingly, one of the best facets of this meeting is the opportunity to reconnect with them at the wine and cheese reception, at the Criminalistics section luncheon, at the workshops, or simply walking from one session to another. As just one example, I had the good fortune to run into Past CAC President Greg Matheson. We served together on the CAC board for several years and I had missed conversing with him. That is a huge benefit about working in the forensic field and getting involved in our professional associations. We are a relatively small community and there are so many outstanding people we meet along the way who embody what it means to be a scientist.

To be sure, there were a lot of pleasant memories made at this meeting. There were the conversations during walks to lunch with friends from my workplace, the reacquainting with former colleagues, the gluttony of the make-your-own sundae bar at the reception, and my solo, late-night walk to Disneyland for an hour to make use of my annual passport for a single ride on Pirates of the Carribean. Also, less noticeable but no less important (at least for me), there was the feeling of being part of a community whose primary focus is the commitment to good science for the betterment of society. That sounds super corny. But as I get older, I realize a lot of the fundamental truths in life are aggravatingly trite.

As it happens, during this increasingly onerous year of 2020, it turns out my trip to Anaheim in February was the last time I experienced a social gathering with a large group of people. It makes me appreciate that meeting and the gift of this award all the more. As busy people, we wake up every day with plans. But as this year has shown, those plans can be demolished through no choice of our own. So count your blessings often, live in the moment, and of course, amble over to Disneyland whenever you can manage.

-E.H

CACBits

The California Association of Criminalists currently has some committee vacancies and is looking for members to fill them!

For a more complete list of duties and responsibilities for each of the listed positions please view the Committee Manual accessible at https://www.cacnews.org/organization/committees.shtml.

If you are interested in any of the following committee positions please contact Jamie Lajoie at president@cacnews. org by September 30th.

ABC Certification Committee...

...is looking to fill their *ABC Exam Committee* position with a CAC member having a drug analysis background. This is a 3+ year term. The position involves developing new examinations as directed by the ABC Board of Directors, evaluating results and reviewing feedback from completed examinations every six months, and updating existing examinations.

Financial Review Committee...

...is looking to fill a *Committee Member* position. This is a 3 year term with the second year serving as Committee Chairperson. The objective of the Financial Review committee is to conduct an annual audit of the finances of the Corporation.

Publications Committee...

...is looking expand the *Art Director* position. They are looking to add another two people to this committee to share the duties of the Art Director position. These positions are a 2+ year term. The Art Director serves as a collection point for content for the CACNews, as well as the artistic eye behind the organization and layout of the CACNews. This position also assists in taking and acquiring photographs of CAC events and conferences. Another primary function of the Art Director is to maintain a historical record of our meetings and to promote the seminars to our many members who did not attend, thus encouraging an interest in attending future seminars. Training can be provided on the publishing platform if you do not have experience.

Awards Committee...

...is looking to fill their *Most Outstanding Presentation* and *Poster Judge Coordinator* position. This position has no defined term. The position involves arranging a panel of judges at each seminar to adjudicate the Most Outstanding Presentation and Poster awards.

Historical Committee...

...is looking to fill a *Committee Chairperson* position and *Committee Member* position. These positions have no defined term. The Historical Committee accepts, organizes, and preserves any historical documents or items belonging or donated to the California Association of Criminalists. The Chairperson position would ideally be filled with someone who can easily access the physical location of historical documents housed at the Hertzberg-Davis Forensic Science Center.

Nominating Committee...

...is looking to fill a *Committee Member* position. This position has no defined term. The objective of the committee is to find and nominate CAC members to serve in office positions.

Bylaws Committee...

...is looking to fill a *Committee Member* position. This position has no defined term. The objective of the Bylaws Committee is to periodically review the bylaws to make sure they are up-to-date and to work with the Board to suggest and make proposals to change the bylaws.

Legislative Analysis Committee...

...is looking to fill two *Committee Member* positions. These positions have no defined term. The objective of the Legislative Analysis Committee is to provide summaries of legislation that may affect forensic scientists to the membership; these summaries can be found in the Business Meeting minutes.

Note: Affiliate members cannot serve on committees. Associate and Retired members can serve as a committee member except for on the Ethics Committee. Full and Life members can serve as a committee member or as committee chair.

Remembering Terence Wong

by Catherine Currier with contributions from Tony Nguyen.

It's been 27 hours since I learned of Terence Wong's untimely death, and I am awash in the many memories we shared working together at the Contra Costa Sheriff's Office Crime Laboratory. I spent almost 10 and a half years working with him, both in Firearms and in Crime Scenes. There



was a group of us at the lab that were all around the same age and during those 10 years I worked there, the group all grew up together. We spent Taco Tuesdays together, went salsa dancing for his birthday, attended parties at each other's houses, poked fun at each other, went to training classes together, and created epic desk displays when a co-worker was gone for a week. We all attended each other's weddings, wel-

comed each other's kids into the world, but most of all supported each other when things were not so great. We watched the lab expand from a double wide trailer to a new building and saw our Lab family double with the hire of new employees. But even through all the changes, one thing held true: we were always there to support each other.

Terence started his career at the Contra Costa Sheriff's Office Crime Laboratory in August 2002 as a Criminalistics Laboratory Aide. He graduated from the police academy in August of 2004 and was sworn in as a Deputy Sheriff Criminalist. Terence was a brilliant criminalist. He was a firearms examiner and was one of my most influential mentors when I first started in the unit. He demanded that I be my own advocate, and to this day, I never forgot that lesson. He took a no-nonsense approach to training me and the others that came after me in processing crime scenes. He had a passion for photography and harnessed that talent to train other criminalists in the laboratory in using the proper techniques in crime scene photography. His excellence in photography was used to the fullest by his friends and the Sheriff's office. He was the photographer for countless Sheriff's Office events. Many of us in the lab still have his photographs of our wedding/engagement/children hanging in our homes.

Terence also had a love for computers. Prior to working at the Contra Costa Sheriff's Office Crime Laboratory, he worked at Gamers.com. Any question I had when it came to

computers and technology in general, he would answer it and help me. He was the ideal candidate to become a member of the FBI's Regional Computer Forensic Laboratory for three years. He became a digital evidence expert and created the first Digital Evidence section at the Contra Costa Crime Laboratory in 2016.

Outside of the lab, he was a talented musician and an even better salsa dancer. He was a member of the Police Pipes and Drums band. It was a surreal moment to see Terence wearing a kilt playing at my police academy graduation. I watched them play again at his wedding, their last performance together.

The only thing that could eclipse his passion for photography and computers was his family. He had a beautiful wife, Anna, (both being unabashed nerds) and they married on Pi Day. He had two adorable daughters: Elise, four and Zoe, one. Of all the things he accomplished in his life, I know that they were his proudest. He was fiercely devoted to his wife and daughters. I loved watching this gruff, prickly guy instantly melt and metamorphosize into a giant softie singing along with his daughter to Kidz Bop or the Trollz movie soundtrack.

What else was special about Terence? He had fantastic one-line zingers that would make everyone laugh in the room. He was sharp and passionately opinionated; he loved giving advice to people whether they asked for it or not. He was honest and direct with his critiques, but he always meant it for you to improve. He encouraged everyone to eat healthier; one of the things the Contra Costa lab loves to do is eat treats. If it was your birthday or you were making a special announcement like you were having a baby, you had to bring in a treat. Bagels and donuts were the norm, but when it was his birthday, he brought fruit.

There are not enough words to encapsulate how much of an impact he made on the world. He was in a field that had a direct impact on people's lives. He drove me to become a better criminalist, a better crime scene responder, and a better friend. I know he did the same for countless others. I miss his gruffness, his humor, and his readiness to help. He was a husband, a father, a mentor, but most importantly he was a member of our forensic family. We are inundated every day with examples of how fragile life truly is, to a point where we become numb to it. It takes these tragic catastrophic losses of one of our own to remind us that we are not immune to the cruelties of life. If there's anything for you, the reader, to take from losing Terence, it is to always strive to improve. Become a better criminalist, a better spouse, a better parent, a better you.

There is no one like him in this world. It's unfathomable to think of this world without him in it. The world just lost a truly beautiful person. *Rest well Terence, I love you.*



POLICE SCIENCE HISTORY

Calivin Hooker Goddard

1891-1955

As the founder and first editor of this Journal (American Journal of Police Science) and as a pioneer in the development of scientific methods of criminal investigationin our country, Col. Calvin H. Goddard has left an indelible stamp upon our presentsociety. Born in Baltimore, October 30, 1891, son of Capt. Henry P. Goddard, he graduated (with honors) from Johns Hopkins University in 1911 and was awarded his M.D. degree in 1915. He received special training in military medicine at the U. S. Army Medical School, from which



he was an honors graduate in 1917. Serving in the Army Medical Corps in France, Germany, and Poland as well as in this country during World War I, he was advanced through grades to the rank of major. In 1920 he resigned his Army commission to become Assistant Director (for business administration) of the Johns Hopkins Hospital. In 1924 he was called to the post of Administrative Director of the Cornell University Clinic in New York City.

During this interval, his interest in firearms, which had been a hobby since boyhood days, narrowed into the more specialized field of firearms identification. Working with such men as Judge C. E. Waite, Philip Gravelle, and Capt. E. C. Crossman, he developed the comparison technique for identifying characteristic markings left by rifling grooves, firing pins, or extractor claws on fired bullets and cartridge cases. An ingenious adaptation of the bronchoscope and cystoscope, long used by the medical profession for the inspection of inaccessible portions of the human anatomy, enabled him to examine defects in the interior of rifled gun barrels. The adaptation of the comparison eyepiece to permit the simultaneous microscopic examination of two bullets was also one of Goddard's additions to the techniques of firearms identification. His first paper bearing on these new methods was published in Army Ordnance in 1925. The hobby quickly brought him fame, and his services were in frequent demand in criminal cases involving firearms evidence.

By 1926 his work on firearms identification so encroached upon his medical duties that he resigned from the Cornell Clinic staff to form (with Judge C. E. Waite and others) the Bureau of Forensic Ballistics. One of his early causes celebre was the Sacco-Vanzetti case. The Governor of Massachusetts, in considering the appeal of the convicted men for clemency, requested Goddard's opinion concerning the reliability of the prosecution's identification of the fatal bullet allegedly fired from Sacco's pistol. Goddard's findings completely corroborated those of the prosecution experts.

This article originally appeared as Col. Calvin Hooker Goddard (1891-1955), 46 *Journal of Criminal Law, Criminology, and Police Science* 103-104 (1955-1956). Reprinted by special permission of Northwestern University Pritzker School of Law, *Journal of Criminal Law and Criminology*.

In 1929 he was called to Chicago, which had become notorious as the Crime Capitol of the nation, to examine evidence in the St. Valentine's Day Massacre. In this particular crime seven men were mowed down by members of a rival gang armed with two "Tommy" guns and a 12 gauge automatic shotgun. Due to Goddard's work on the fired bullets and cartridge cases, the two Thompson sub-machine guns were finally located in a hoodlum hideout in St. Joseph, Michigan.

In the St. Valentine's Day case, the Cook County Coroner empaneled a so-called "Blue Ribbon" jury composed of outstanding citizens to hear the testimony and render a verdict. Among these were such industrial leaders as Bert A. Massee and Walter A. Olson. So impressed were these and other civic-minded citizens of Chicago with the efficacy of Goddard's methods, that they persuaded him to organize a Scientific Crime Detection Laboratory in their city. With the support and encouragement of Dean John H. Wigmore, the laboratory was established in 1930 as a division of Northwestern University's Law School. With Col. Goddard as Director and Professor of Police Science, a staff of specialists was gathered together covering such additional techniques as chemistry, toxicology, serology, document examination, detection of deception, microscopic identification, and photography. This was the first comprehensive scientific police laboratory in the nation.

In order to have the benefit of foreign experience in this field, Col. Goddard made a tour of medicolegal institutes and police laboratories in many European countries. The purpose of the laboratory was not alone the investigation of criminal cases, but also the training of police personnel in the use of scientific techniques. As a part of the educational program, the *American Journal of Police Science* was established in1930 with Col. Goddard as managing editor, a position which he held until his resignation in 1934.

Following his return to Washington, D. C., Col. Goddard held fellowships from the Guggenheim Foundation and from the Oberlaender Trust to permit continuation of his studies and researches on firearm identification techniques both in this country and in European laboratories. At the outset of World War II he was recalled to active duty and served in the Ordnance section, the Army War College, and finally as Chief of the Criminal Investigation Laboratory of the Far Eastern Command at Tokyo.

In 1951 he returned to the national capitol to assist in editing historical memoirs for the Army Medical Corps. His untimely death, February 22, 1955, from a cardiac ailment, followed a brief illness. He is survived by his wife Eliza (Harrison) Goddard and two daughters, Mrs. Harry Bacas and Mrs. Henry Zon.

Throughout his entire career, Col. Goddard has been an inspiration to all those who have been interested in the application of Science to the service of justice. He was most generous in giving of his time and energy to help younger men with their investigative problems. If George Washington may fairly be called the "Father of his Country," then surely Calvin Hooker Goddard may justly be entitled the "Father of Scientific Crime Detection" in these United States. His passing represents a real loss to Law Enforcement in our land.

—С. W. Muehlberger

This coloring-book page was created by the Marshall University Foundation to promote interest in forensic science careers among school-age children. Submitted by Ed Jones. (Reprinted by permission.)

Forensic scientists compare and interpret evidence retrieved from crime scenes. In the Fall of 2019, Marshall's Master of Science in Forensic Science was ranked #1 in the country.



News from the ABC



Restructuring of ABC Certification Schemes

The American Board of Criminalistics (ABC) has been the primary certification body for criminalists since its creation in the early 1990's. Over the last thirty years the ABC Boards of Directors have made many changes to the various certification schemes. Those changes were made to ensure the ABC continued to meet the needs and desires of the profession and the criminal justice system to provide a quality process of peer review by which a practitioner is recognized as having attained the professional qualifications necessary to practice in one or more disciplines of criminalistics.

When the ABC was created, certification of criminalists was very rare and fragmented and though ASCLD/LAB was accrediting laboratories, many laboratories had yet to become accredited. The criminal justice system was starting to demand external review and accountability of forensic science laboratories and its personnel. The ABC knew it was essential to have its program evaluated by an external accreditation body to prove its validity, but none existed until the creation of Forensic Specialties Accreditation Board (FSAB). The ABC was the first forensic science certification body to be accredited, though the FSAB was still internal to the forensic science community.

Several years ago, the ABC Board of Directors (BoD) voted to seek accreditation from outside the forensic science community and work towards ISO/IEC 17024 (ISO) accreditation. Following that decision, the BoD has allocated significant resources to train ABC staff in ISO rules, processes, test development and validation. This resulted in initiating the creation of ISO compliant certification schemes. The fruit of this work can be seen in the recent introduction of two new certifications, Forensic DNA and Biological Screening, with an eye on a Foundational Knowledge Examination yet to be developed. During the development of the new certification schemes, it was determined that proficiency testing could no longer be a requirement for an accredited certification scheme without the ABC creating its own proficiency tests. The BoD determined it was inappropriate for the ABC to become a proficiency test provider. Since performing a proficiency test is currently the sole difference between an ABC Diplomate and a Fellow, the BoD initiated a complete review of all current and historical certification schemes in light of the progress toward ISO compliance.

While considering the future of the Diplomate and Fellow designations, the ABC asked for the opinions of our certificants in a survey in the fall of 2019. We received 478 responses to this survey, over 40% of our certificants. Summaries of the results can be found in the Spring 2020 newsletter and in the 2019 Recertification Survey Results document on our website. One of the questions in the survey focused on the future of the Fellow program. The BoD carefully reviewed the responses to that survey. The comments were particularly helpful and informative. Armed with the opinions of our certificants and considering the current direction of the ABC, the

BoD made the difficult decision to eliminate both the Fellow and Diplomate designations effective January 1, 2021.

Please know that this decision was not made lightly. Many of our Board members are or were Fellows. A significant amount of time has been dedicated to discussing a way to retain this program and if it is in the best interest of our certificants and our organization. Ultimately, the decision was made to end the program at the end of this year.

What does this mean for you, our certificants?

- The current certification designations will remain asis until the end of the calendar year.
- Beginning January 1, 2021, there will no longer be a differentiation between Diplomate and Fellow. Certificant credentials will be identified using the following scheme:

Biochemistry: ABC-BC; Comprehensive Criminalistics: ABC-CC; Drug Analysis: ABC-DA; Drug Analysis, Technical Specialist: ABC-DAT; Fire Debris: ABC-FD; General Knowledge Examination: ABC-GKE; Hair and Fiber: ABC-HF; Molecular Biology: ABC-MB; Molecular Biology, Technical Specialist: ABC-MBT; Paint and Polymer: ABC-PP

- In January, the Certificant list on our website will be updated to reflect the new certification credentialing scheme.
- New paper certificates will not be issued until current certificates expire. This decision was made as a means to control costs. If you wish to have a new certificate, you may request one using the Certification Conversion Form (09-0802F) found on our website. There is a\$15 fee for a new certificate.
- The proficiency review process that is currently underway will continue until completed.
- When submitting 2021 recertification packets, you will no longer be required to submit a proficiency testing reporting form.
- Recertification fees due in 2021 will all be at the current Diplomate level.
- Requests for conversion to Fellow conversion will no longer be accepted. Any requests received after July 1, 2020 will not be processed.

The BoD understands the changes to the certification process are significant and essential for the continued improvement of the ABC. It is crucial that the criminalistics community have an externally reviewed certification program practitioners can rely on as one prong of their professional credentials. These changes will ensure the ABC is the source of criminalistic certification into the future.

We appreciate your patience during this transition.

If you have any questions or comments regarding this information, please contact the ABC Board of Directors at https://www.criminalistics.com/contact-bod.html

CAC Study Groups & You



Firearms Study Group Co-Chair Jessica Winn

The CAC is always striving to adapt to the current times and needs of the membership. On July 21, 2020 the association made one such adaptation to the training and programing we offer as an association. That day marked our first ever joint Northern and Southern California Virtual Study Group meeting via Zoom! This virtual study group was a huge success as we had 340 confirmed attendees. There was a total of five groups that met; CSI, Trace/Arson, Firearms, DNA, and Alcohol/Toxicology.

Our Regional Director North, Cindy Fung Anzalone and Regional Director South, Lauren Sautkulis are both committed to continuing to offer training opportunities for our membership during these restrictive times, and these study groups proved to be an effective solution. They wanted to send a special thanks to two of our CAC Webmasters, Stephen Lu and Bonnie Cheng, for handling the online registration and Zoom operations. They also wanted to extend a special thanks for all of the study group chairpersons for organizing agendas and recruiting speakers.



If you are interested in presenting at the next study group, please reach out to the appropriate chairperson or to one of the Regional Directors. We will be scheduling this soon and will also be adjusting the sign in procedure to be more user friendly, so keep an eye out for those announcements. Finally, if you were unable to attend the virtual meeting, recordings of the study groups are now available on the CAC website! https://cac.wildapricot.org/presentations

While nothing can replace the experience of an in-person study group meeting, we will continue to provide these virtual opportunities to connect with each other. Continue to stay healthy and we hope that you attend or present at the next virtual study group meeting!



Sarah Pawloski



Tamla Corbin









Todd Weller



Nancy McCombs







Mark Bennett





Meeting Catherine

CAC President-Elect Catherine Currier sat down for a chat with Editorial Secretary Jonathan Charron.

With two conferences canceled, Spring 2020 and Fall 2020, we have not been able to connect with each other as an association as much as most of us would like. Since we are not able to meet us face-to-face for the time being, it is important to provide a way to get to know the new members of board. Catherine Currier was elected to the board as your new president-elect. We hope this interview gives you some insight on who she is and why she was a great choice for this position.



JC: First off Catherine, I just want to say congratulations on being elected as the next President-Elect of the CAC!

CC: Thank you! I'm happy to be a part of this organization and to just be able to serve.

JC: As we are currently unable to meet at conferences and study groups, I want to take a moment to get to know who you are. When did your journey into the field of forensics begin?

CC: Well, I was always interested in forensic science as a child, but I never really knew what it was. I enjoyed reading Nancy Drew, Hercule Poirot, and Patricia Cornwall's novels about the pathologist Kay Scarpetta, but I never really thought about it as a career. In my last year at college (UC Davis), I had a professor who mentioned forensics to me, and I thought, wow that could be a career?! At this point, I was set to graduate college and thought I will pursue that avenue after graduation. But where I was working as a student offered me a job as soon as I graduated, and I took it, because those loan payments were due soon! But three years later, I decided I wanted to pursue forensics. I started graduate school in January 2003, studying forensic science at UC Davis. I began a research internship at the Sacramento County District Attorney's (DA) Office, Laboratory of Forensic Services, completing my thesis research in the Trace Section. I started applying to criminalist positions at almost every forensic laboratory, and I was lucky enough to start at Contra Costa Sheriff's Office Crime Laboratory as a laboratory aide in 2006 and just over a year later, I was promoted to a deputy sheriff criminalist.

JC: During your time at UC Davis, was there an area of science that you were leaning towards?

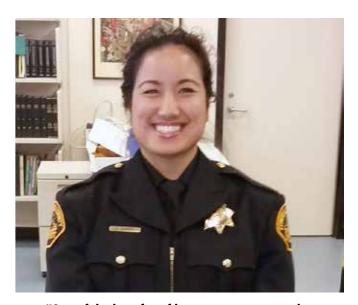
CC: My original intent when I started at UC Davis was to become a pediatrician, so my major was in biological sciences with an emphasis in molecular and cellular biology. I graduated with that degree even though I decided not to pursue medical school. As a side note, I enjoyed reading literature, so I also minored in English, too.

JC: Where did your career in forensics start after college? Do you feel that the internship assisted with your path into the field? What disciplines have you worked in?

CC: As an intern, I conducted my graduate thesis research at the Sacramento County DA's Office, Laboratory of Forensic Services. I know that wasn't paid employment, but I met some fantastic people there and they introduced to me how a crime laboratory functions. After graduation, I began my career as a laboratory aide at the Contra Costa Sheriff's Office Crime Laboratory. As a laboratory aide, I was assigned to the Comparative Evidence Section (Firearms) doing NIBIN entries. Approximately one year later, I promoted to a deputy sheriff criminalist. I worked there for 10.5 years, working in both the firearms and crime scene sections. Again, I had the opportunity to work with some fantastic people who mentored me during the beginning of my career, most notably John Nelson for crime scenes and John Murdock in firearms. During my time there, I worked with some incredible criminalists. I was very fortunate to have worked there. I currently work in the comparative evidence section at the Sacramento County DA's Office, Laboratory of Forensic Services. I know I keep saying it, but again, I am blessed to work here. I have amazing and talented co-workers! It's funny that I came full circle. I started here as in intern, and now I plan to retire from here!

JC: Now, at Contra Costa, you were sworn, correct?

CC: Yes. At the time I went through the police academy in 2008, Contra Costa was the last agency in the state to actively hire sworn criminalists. Paul Holes, who was our laboratory continued



"One of the benefits of being a sworn criminalist is that you do undergo training in the police academy about how to approach situations and people, how to communicate, and how to de-escalate potentially volatile situations."

director at the time, made the decision to start hiring civilian criminalists after me. Many of the potential candidates had been working in the field for years and attending a police academy was not something that they aspired to do. I was so new in my career, and young at the time, that I jumped at the chance to attend the police academy. I actually was the last sworn criminalist to attend the police academy at Contra Costa.

JC: What an amazing experience that must have been! With having been both sworn and non-sworn now, what are your thoughts about the industry moving away from having sworn criminalists?

CC: One of the benefits of being a sworn criminalist is that you do undergo training in the police academy about how to approach situations and people, how to communicate, and how to de-escalate potentially volatile situations. If you get called out to an Officer-Involved Incident, you have the training and experience to understand why the officer may have behaved in a certain way. It provides a unique circumstance where law and science truly meet. I think one of the challenges for management in having sworn criminalists is ensuring that they meet their required annual POST (Peace Officers Standards and Training) trainings. It does take staff away from the laboratory when there is plenty of casework to be done.

One of the benefits of being non-sworn is that you are separated from the police officer's perspective. There is the appearance that you may be less biased. However, any forensic scientist, whether sworn or not, has the duty to approach the analysis of evidence scientifically, unbiased and impartially, and to explain that analysis in court.

JC: You make an excellent point about our role in the criminal justice system regardless of by whom we are employed. Moving on to

your time and experience with the CAC. Having been a member for many years, what do you feel are some of the reasons an individual should join the CAC?

CC: People should join the CAC for the resources the association can provide to its members, the support that fellow members offer to each other, and the study groups and seminars which allow for the exchange of information. You have the opportunity to meet other people who are in various stages of their careers; take advantage of that and ask questions and learn!

JC: What are some of your goals to improve the CAC while you are serving on the board over the next three years?

CC: I would like to see more people in all the forensic disciplines become more involved in our organization. We can only improve and get better when we all contribute!

JC: Any parting words of advice on how to stay safe and healthy both physically and mentally during these challenging times?

CC: These have been especially trying times for all of us! There is only so much we can do, but I would say to make sure we get plenty of sleep, meditate, eat healthy, and exercise. Make sure you continue to do activities you love. Carve time for yourself. Make time to visit with family and friends, whether it's through a video chat or a socially-distanced visit with masks on. But also, don't be too hard on yourself. As one of my favorite exercise instructors always says, "Be where you are today." Keep the connections going, we will get through this!

JC: Thank you very much for taking the time for us to get to know you a little bit better and I hope that we can get the opportunity to have some great conversations at the next conference!





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Fall 2020 Virtual **Workshops**

Hosted by the CAC Board Launching October 2020

Alcohol Impairment: From driving to controlled drinking studies and everything in between

Two Day Virtual Workshop (4 hours each day) on Zoom platform, Dates: Oct. 14-15, 2020. Members: Free; Non-Members: \$35. Chairs: Valera Horton and Robert Reckers, Orange County Crime Laboratory (CA)

Day One: Driving impairment and SFSTs, Instuctor: Robert Reckers. Driving is one of the best indicators of actual driving impairment. A chemical test is useful information but in most situations, is not done at or near the time of driving. In many states, it is important to know if the driver was impaired at the time of driving. Officers often rely upon SFSTs to support a finding of driving impairment, but SFSTs do not directly measure driving impairment. So, what do they measure?

NHTSA has validated the SFST battery numerous times over the years and even at different BACs. How they performed these validations and what results were obtained from the studies will be discussed. Driving indicators have also been studied over the years and also at different levels to help train officers what to look for, especially at night, when searching for a driver who is possibly impaired due to alcohol.

Goal: After this workshop, participants will have knowledge of the NHTSA SFST validations and their application to alcohol impaired driving. Individuals will also have knowledge about all pertinent driving studies (NHTSA, Long Beach/ Ft. Lauderdale crash study, etc.).

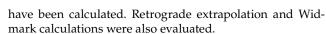
Day Two: Controlled drinking studies and calculations

Instuctor: Valera Horton

Abstract: Controlled drinking studies play an integral role in the understanding of ethanol metabolism in the human body. The Orange County Crime laboratory routinely assists with controlled drinking studies as training for Forensic Alcohol Analysts and to aid students participating in Standardized Field Sobriety Test (SFST) and Drug Recognition Expert (DRE) courses.

The objective of each drinking study was to monitor and evaluate a subject's breath alcohol concentration (BrAC), as well as their performance on SFSTs. The Intoximeters Alcosensor VXL instruments were used to measure each subject's BrAC throughout the day. Over the course of a two year period, 12 drinking studies were conducted by the Orange County Crime Lab, including a total of over 100 volunteer drinkers. Some individuals have participated in multiple drinking studies, providing

insight on variation that can be seen within individuals across different drinking episodes. BrAC curves have been plotted for all participants and elimination rates



Goal: Retrograde Extrapolation, Widmark, and Standard Drink Calculations will be discussed. Common hypothetical calculations will be reviewed and practice scenarios demonstrated. Question & Answer session to follow.

Course Specifics: The course fee includes registration, all course materials, and attendance certificate. Certificate will be awarded at completion of workshop. 90% of workshop must be attended to receive certificate.

Leadership

Presenter: John M. Collins, Executive Coach - Critical Victories (www.criticalvictories.com)

Whether you are already in a leadership role or considering taking one on in the future, this workshop, Intelligent Influence - The Key Ingredients to Leadership and Professional Success will focus on helping you identify and amplify the qualities that others in the workplace look for and respect most in a leader. Presented by John Collins, an executive coach and former forensic scientist, this workshop will discuss leadership and influence as things that can only be perceived by others. People know a leader when they experience one. People know an influencer when they are motivated and inspired by one. We cannot become a leader or influencer unless others choose to entrust us with that authority. Intelligent Influence - The Key Ingredients to Leadership and Professional Success will focus on these concepts and help attendees strengthen the "muscles" that must be exercised in order to earn the respect and admiration of others in the workplace. The benefits of doing so include greater career satisfaction, better relationships at work, and a more productive and enjoyable work environment. Sign up for this workshop for a unique opportunity to learn from a leadership expert with over 20-years of forensic experience!

- Day 1 (10/26/20) 2-hour live webinar to present material followed by on-demand learning within his company portal
- Day 2 (10/27/20) access to on demand material and exercises to complete via the portal
- \bullet Day 3 (10/28/20) continued access to the material and exercises via the portal

Online platform will be ZOOM

Pricing:

\$100 for CAC members and CACLD members*

\$135 for non-members

*CACLD members will register as non-members and can request a \$35 refund.

Deadline to register: October 16, 2020

