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**CRIME  
SCENE**  
INVESTIGATION

# ***CRIME SCENE TECHNOLOGY NEWS***



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**Crime Scene Investigation Equipment Ltd is based in the beautiful County of Buckinghamshire, South East England. We are the oldest established company in the United Kingdom specialising in the manufacture and supply of quality materials for the Fingerprint, Scene of Crime and Forensic Investigator.**

**Staffed by ex-members of the Police and Security Services (British Military) we have a wealth of knowledge and expertise in all aspects of criminal and forensic investigation and therefore fully understand the problems and difficulties encountered by our customers.**

**It's for this reason, that for many years, we have continued to invest in new products and services that allow our customers around the world, to detect, apprehend and prosecute those individuals who choose to live outside the law.**

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# CONTENTS

<b>M-Vac Improves DNA Recovery Rates.</b>	<b>Robert Milne FFS MCSFS</b>	<b>Page. 2 - 8</b>
<b>Pathfinder ESL revisited and new earth bonding kit for the USA</b>	<b>Richard Barton CSI</b>	<b>Page. 9 - 11</b>
<b>New York Division of the IAI Training Conference 2015.</b>	<b>Andrew Reitnauer President NYIAI.</b>	<b>Page. 12</b>
<b>Is it time to relegate the magnifying glass to the dustbin of Fingerprint Comparison history</b>	<b>John Maloney. Forensic Comparison Software</b>	<b>Page. 13 - 15</b>
<b>Biological Affinity in Forensic Identification of Human Skeletal Remains: Beyond Black and White. Author interview</b>	<b>Mark Listewnik Senior Editor Forensic Science Books CRC Press</b>	<b>Page. 16 - 19</b>
<b>Protecting Crime Scenes from Mobile Phone Snoopers</b>	<b>Robert Milne, Editor reports on the CSI Crime Scene Screening System.</b>	<b>Page. 20 - 22</b>
<b>Fire Investigations Global &amp; Fire Investigations UK LLP. BRE</b>		<b>Page. 23</b>
<b>Casebook <i>Jack the Ripper link</i></b>		<b>Page 23</b>
<b>The Whitechapel Society - <i>'A must read for Ripperologists just follow the link.'</i></b>	<b>Frogg Moody Whitechapel Society Journal Editor</b>	<b>Page. 24</b>



## Crime Scene Technology News

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**M-VAC manufactured by M-Vac Systems Inc. USA provides a new tool enabling the improved recovery of DNA from difficult surfaces and materials in both quality and quantity.**

**Bob Milne MCSFS FFS takes a look at the M-VAC System and the results achieved by a number of Police services.**

## **M-VAC IMPROVES DNA RECOVERY**

The standard method for recovering DNA from most exhibits is to use sterile DNA free swabs. It should be noted that sterile swabs as used for medical uses may be sterile but not necessarily DNA free. It is important to ensure that swabs are certified and labelled DNA Free. In any event an evidence recovery swab is an absorbent tip on a small stick and once used is stored in a plastic tube.

This is fine for the recovery of DNA from body fluids or the removal of cells on non-porous surfaces. What about the microscopic traces of body fluids or cells in crevices, in fabrics below the surface? Here swabs can be ineffective and that is why the M-VAC originally designed to recover bacteria from food plants for analysis was utilised in its present form to enable the more effective recovery of DNA.

A recent study by the Philadelphia Office of Forensic Science, was two fold. In the first part the M-Vac recovered 180 times more than the swabbing of diluted buccal cells from clean cloth swatches. In the second part of DNA recovery of touch DNA on a variety of substrates the M-Vac recovery was on average 5 times more than swabbing in those scenarios. Both validations however showed a significant increase in performance.

The M-Vac enables the systematic search of clothing, rock, cement or other porous surfaces and even large-surface sampling from human skin. Both casework and research has shown traditional methods are not as effective as the M-Vac on these substrates.

To give readers an appreciation of the effectiveness of the M-VAC system the cases covered below include a cold case whereby useable DNA was recovered from a rough rock used as a murder weapon 18 years ago.

# COLD CASE

## PROVO RIVER MURDER CASE 1995



*Provo River Midway Utah USA*

### ***M-Vac System DNA Collection Device Helps Solve 18 year Old Cold Case.***

Bluffdale, Utah, Sept 25, 2013 – M-Vac Systems, a leader in DNA collection technology, announced that its sampling device was instrumental in helping solve the 1995 murder of Krystal Lynn Beslanowitch. Utilizing the M-Vac's unique wet-vacuum approach, investigators collected enough touch DNA from a rock to generate a full profile and move the case forward.

At the time of the murder 18 years ago, then Detective Todd Bonner was dispatched to the scene and found the body of Beslanowitch, who had been bludgeoned with one of the rocks that lay near her body. Many resources were devoted to solving the crime, but the evidence from the scene would not tell the story. Krystal's case went cold.

"It's a case that's haunted me for almost my whole career," said Bonner, now the Wasatch County Sheriff. On September 17th 2013, Sheriff Bonner was able to close the loop – he tracked the suspect to Florida and personally put the handcuffs on Joseph Michael Simpson.

Referring to the process of collecting Simpson's DNA from the rock, Cami Green of Sorenson Forensics stated "In forensics, that's fairly new technology. It is the most sensitive collection method we have at our disposal."

Wasatch County worked closely with other police agencies, crime labs and prosecutors from around the State of Utah and Florida to make the arrest.

"There are many officers, analysts and agencies that need to be thanked for their part in solving the Beslanowitch homicide." Sheriff Bonner stated. "Without a doubt, the M-Vac system is the major tool that allowed us to make critical DNA connections in this case."

## A Current Case

SALT LAKE CITY—March 18, 2015—M-Vac Systems Inc., today announced the significant role the M-Vac played in collecting critical forensic DNA from a pillowcase found at the murder scene of Uta von Schwedler. The ensuing DNA profile matched former paediatrician, John Brickman Wall, Uta's ex-husband. Investigators utilized the M-Vac's ability to collect DNA material from the fibres of the pillowcase, generating DNA evidence that was vital in identifying the killer.

“We were fortunate in this case to have an M-Vac System in our lab as a collection method as it was able to collect DNA where the other methods had failed,” says Daniel Hellwig, MSc., Lab Director of Sorenson Forensics. “The M-Vac was able to provide us with a solid DNA sample, and coupled with our cutting-edge DNA processing, we were able to put together the genetic profile needed to move this case forward.”

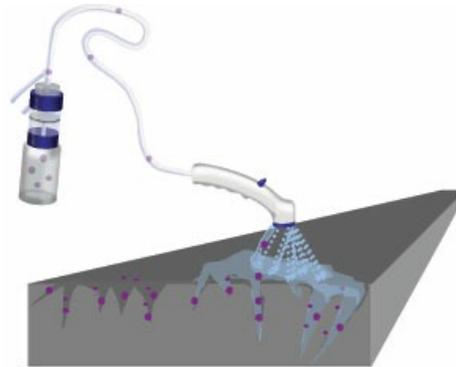
Prior to using the M-Vac System, investigators had tried the swabbing method, but court documents indicate that it did not collect enough DNA to produce a distinguishing profile. That's when the investigative team decided to try the more robust wet-vacuum method. The results made all the difference.

“Helping investigators solve crimes like the Wall case is the reason we are in business,” stated Jared Bradley, President of M-Vac Systems. “When the M-Vac produces a DNA profile that the other methods couldn't it is amazingly fulfilling to all of us. We certainly congratulate the investigators, prosecutors and forensics professionals who worked tirelessly to get this case to a guilty verdict. We are extremely proud our DNA collection system was able to play a role in helping them get there. Most importantly though is the closure Uta von Schwedler's family can now obtain and move on with the healing.”

The M-Vac System is being utilized by an increasing number of police agencies and crime labs both in the United States and internationally. It can collect critical DNA evidence from a variety of surfaces at the crime scene, in the evidence processing facility or in the crime lab. As the world's most advanced wet-vacuum forensic DNA collection system, the M-Vac opens up cases and evidence to potential DNA profiles that were not available in the past.

Defendant John Brickman Wall was tried in the 3rd District Court in Salt Lake City, Utah. Case #131903972 FS. The jury found the defendant guilty on March 12th 2015.

## How Does the M-Vac Work?



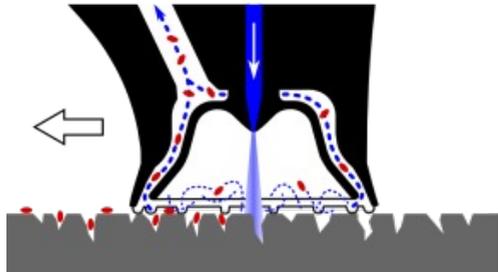
### Collection.

The M-Vac uses wet-vacuum principles to cause the DNA material to release from the substrates and then captures the cells. DNA free buffer is sprayed directly onto the surface while simultaneously vacuum is applied around the spray pattern to collect the buffer and suspended particles in the collection bottle.

### No Elution.

Many sampling methods require elution - removal of the cellular material from the sampling device - which can be problematic if the device is not designed to capture and release. Most sampling devices like swabs are not physically capable of both. The M-Vac sample is contained in a collection bottle ready for concentration or enrichment, eliminating the elution step.

## The M-Vac's Patented Collection Method



The M-Vac's patented collection method applies a sterile solution to the surface and simultaneously vacuums up the DNA material from the targeted substrate. The solution and DNA material are then captured in the attached collection bottle, which is then filtered and sent to the lab for further processing. The filter does not need to be dried or frozen. This unique collection method is both scalable and more sensitive so covering larger surface areas and/or collecting minute amounts of DNA are very feasible.

# VALIDATIONS

The M-Vac has been extensively tested by MSI, universities, law enforcement agencies, labs and other companies.

## UC Davis Sexual Assault Oriented Research: Project 2

### Comparing the M-Vac to Standard DNA Collection Methods for Large Surface Areas.

#### Conclusions:

In some cases, a sexual assault victim will shower before they seek out a forensic exam. If the victim was unconscious during the assault, it may be hard to indicate where the victim was violated by the assailant. The traditional swab technique is limited to a small surface area, but the M-Vac can sample large regions of the body. In this study, the saliva location was known, potentially giving the swab an over-representation in the results. When the saliva location is unknown, the M-Vac would be more effective.

## UC Davis Sexual Assault Oriented Research: Project 3

Comparing the M-Vac to Standard DNA Collection Methods for Large Surface Areas  
Conclusions: Touch DNA is typically not visible to the naked eye, even with the use of an ALS (Alternative Light Source). Therefore, using a collection technique that only covers a small area can limit the DNA recovered. Cuttings are typically restricted to a 1 cm square fragment, whereas the M-Vac can collect one sample from a much larger area. Compared to cuttings, the M-Vac collects more touch DNA because it is capable of covering a much larger surface area. In some trials, the cuttings result in little or no DNA; however, the M-Vac is capable of collecting touch DNA. Regardless of the collection method used, more touch DNA is recovered if the contributor has sweaty hands.



Chris Hopkins, UC Davis Forensics Program Director - The M-Vac System | DNA, Collection, Wet Vacuum

by M-Vac Systems  
3 months ago • 364 views  
Visit Us @ <http://m-vac.com/>

URL: <https://www.youtube.com/watch?v=6dBG9AAuVjA>

*Click the link to view video from University of California at Davis, Forensic Science Graduate Program, Sacramento State University, California Clinical Medical Training Centre.*

# Boston University Comparative DNA Collection Research

Researchers at Boston University presented impressive M-Vac comparison results at the 2012 North East Association of Forensic Scientists (NEAFS) Conference showing the M-Vac recovered significantly better than the swabbing method on denim.

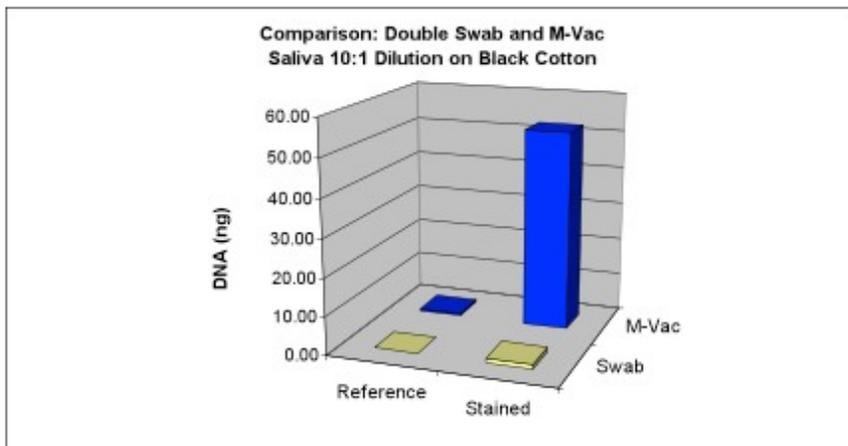
## ***Boston University evaluation***

*URL: <http://www.m-vac.com/images/pdfs/2012bostonuniversitystudyexcerpts.pdf>*

*Click the link*

## **Filter Apparatus Verification**

A verification test was conducted to evaluate the use of a filter apparatus with a 0.45 µm PES filter as a viable means for concentrating M-Vac samples. The verification also included a comparison of the double swab and M-Vac sampling methods. The M-Vac collected 39 times more DNA material than the double swab method.



## ***UC Davis California Sexual Assault case orientated evaluations***

*URL: <http://www.m-vac.com/images/pdfs/aafsposter.jpeg>*

*Click the link*

## Summing up the M-VAC system

There is plenty of evidence from users and academic sources substantiating the M-Vac System as an efficient and cost effective asset that is helping investigators to solve more crime. Used alongside traditional methods the M-Vac System offers opportunities to recover DNA in situations where the traditional methods could be ineffective. The results in cold case reviews and in difficult cases such as homicides and sexual assaults are encouraging. The M-Vac gives cases a second chance.

*Crime Scene Technology News wishes to express our thanks to Jared Bradley and the team at M-Vac Systems Inc. for their help and co-operation in preparing this article. R Milne Editor.*

## Requesting an M-VAC demonstration or trial.

Please contact us at [sales@csiequipment.com](mailto:sales@csiequipment.com) or call us on 01908 58 50 58

CSI Ltd catalogue link URL: <http://www.csiequipment.com/>

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1974

## The Fingerprint Society

*Quaerite et Invenietis*

The Fingerprint Society started life as "The National Society of Fingerprint Officers" in 1974, but due to international interest was transformed into "The Fingerprint Society" a year later.

### Our Aims

The aim of The Society is 'To advance the study and application of fingerprint evidence and to facilitate the co-operation among persons interested in this field of personal identification'

### Our Motto

The motto of The Society is 'Quaerite et invenietis', which is Latin for 'Seek and ye shall find'.

Membership enquiries: [membership@fingerprintingsociety.com](mailto:membership@fingerprintingsociety.com)

Editorial team contact: [journal@fingerprintingsociety.com](mailto:journal@fingerprintingsociety.com) Please contact us re publishing your articles. Original papers, technical notes, articles and real crime features are welcome.

The Fingerprint Society has an extensive archive of articles and papers on Fingerprints, Crime Scene Examination techniques also historical articles and case reviews. The index is on this link. URL: <http://www.fingerprintingsociety.com/fpsoc2014fpwindex/>

The society organises a World class conference annually and is expanding its membership. The membership consists of police, forensic practitioners, scientists, academics, students and interested persons.



**The Pathfinder Omega ESL is the latest model of the original wireless ESL machine used worldwide.**

**Richard Barton CSI discusses the best way to use Pathfinders and the kit available to enhance performance.**

## **CSI Pathfinder ESL**

The Pathfinder was developed in the late 1990s as a compact solution to the problem of supplying CSIs' with a compact electrostatic dust mark lifter (ESL) which could be part of the standard equipment carried by crime scene examiners.

ESL devices work by charging the aluminised surface of Mylar film with a few thousand volts to create an electrostatic attractive force, which lifts the particles in dust marks to the Mylar film. Once on the film using oblique lighting the finest details of marks can be seen. Further in addition to lifting marks found visually the Pathfinder is used to 'cold search' whole floor areas and find marks, which may not have been found by other means. The use of stepping plates by CSIs' are essential so the cold search can be done before the team walks over the floor areas in the scene. Even level 2 detail footwear marks revealing pattern, size and major areas of wear can be recovered from carpeted areas.

This technique is a vital tool which every scene examiner should have access to, which is one of the best options to recover third level detail marks of high evidential value that may be missed by just oblique light searching.

The electrical output of ESL devices is not in the form of direct current instead they provide high voltage alternating current in the micro-amp range, which can propagate through substrates which are normally viewed as insulators, such as vinyl, plate glass, wood etc. This enables the Pathfinder to charge Mylar film virtually anywhere in the crime scene. Indeed the author has lifted tyre marks from tarmac road surfaces with very good detail in the marks. Where papers are scattered in crime scenes very often the apparently blank pieces of paper when examined with the ESL technique reveal third level detail marks.

Ever mindful that every scene and every surface is different, earth bonding equipment has been developed for the Pathfinder and is available to suit users worldwide.

## The Principle of Earth Bonding

When ESL film is charged the electrons spread themselves across the aluminium coated surface and the attractive force attaches dust particles of opposite charge from the surface below. The greater number of paths the current can take then the more effective the electrostatic attraction will be. In the UK Pathfinders were supplied with an earth bonding lead so that the current from the Pathfinder could be distributed in parallel via the mains earth in any building thus creating many more current tracks, which by Ohm's Law reduces resistance leading to better attractive force on the lifting film.

Earth bonding leads are now available for European and USA users as well as the original UK type. As a safety feature the cord on the Earth bonding kits does not contain a wire conductor but rather a special static conducting plastic which cannot carry mains power.

In situations where a mains earth socket is not available the lead can be clipped to a water pipe or clipped to a spare metal plate, placed against a nearby wall held with masking tape and this will provide more electrical current tracks.

I have used a Pathfinder on a walkway, where a man was found in the road below the walkway badly injured. I removed stone chipping and debris from the surface and the film appeared not to attract to the paving slabs but when light pressure was made by running an insulated roller across the film footwear marks were recovered even though the scene was damp with a frost starting to form on metal railings above. No footwear marks were visible until they were lifted on the film.



*UK / UAE Earth Bonding kit*



*European Earth Bonding kit*



*USA Earth Bonding kit*

## ESL Lifting from the roll



*ESL lift being made from the roll*

ESL lifts can either be made from pre-cut sections of Mylar film or straight from the roll. Lifting from the roll generally reduces the number of trapped air bubbles and is the preferred method for cold search of large floor areas. Pre-cut panels are useful for lifting marks found by light search. The light search of course is always the first option before any other techniques are used. Further reading :-



*Pathfinder ESL pouch*

### **IAI link Electrostatic mark lifting.**

URL: <http://www.theiai.org/member/jfi/JFI-2012-2-154.pdf>

### **Catalogue link Pathfinder ESL**

URL: [http://www.csiequipment.com/csi-pathfinder-esl\\_p31876.aspx](http://www.csiequipment.com/csi-pathfinder-esl_p31876.aspx)

# NYIAI EDUCATIONAL CONFERENCE 2015



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2015 Educational Conference

Crowne Plaza Hotel, Syracuse, NY

October 9-11, 2015

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URL: <http://www.nyiai.org/>

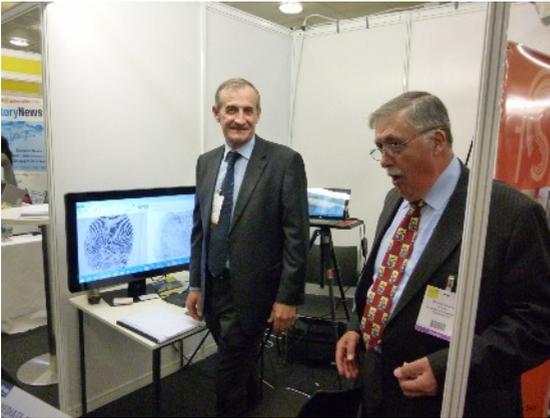
**We are thrilled to be attending the New York IAI Educational Conference in Syracuse NY and look forward to meeting members and visitors.**

**Please visit us on our stand at the Conference. We will be delighted to demonstrate some new exciting equipment such as the latest in DNA recovery, M-Vac, magnetic powders, the new Pathfinder ESL earth bonding kit, made for use in the USA and many other products.**

**Regards**

*Grahame Sandling & Bob Milne*

URL: <http://www.csiequipment.com/>



**John Maloney demonstrates his fingerprint comparison software to Mike Sandling CSI Ltd at The Forensics Europe Expo, Olympia London April 2015.**

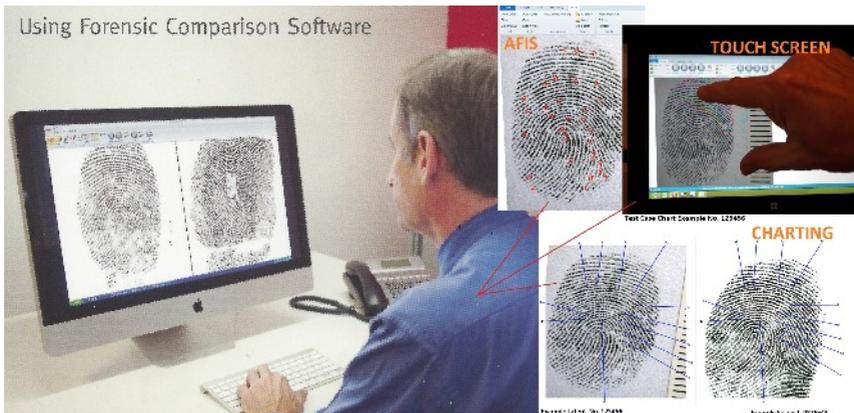
# **Is it time to relegate the magnifying glass to the dustbin of Fingerprint Comparison history?**

**By John Maloney**

In the late nineties I was the Officer in Charge of a small Fingerprint Bureau in Northern Australia and, while small, we were advanced in the use of technology in our day to day operations. We used digital cameras to capture fingerprints from the crime scene years before our colleagues in most of the larger Southern States and we had the use of modern AFIS technology to search fingerprints against a National Database. Every one of my Fingerprint Technicians had their own PC with high definition computer screens along with everything else found in the modern office space of that time.

There was one area that always seemed to me to be from a bygone era and that was the use of magnifying glasses to conduct fingerprint comparisons. I, along with every other Fingerprint Technician of that time, did my apprenticeship hunched over a pile of fingerprint forms working out the Henry Classification so that they could be filed in the correct place. Comparisons of crime scene prints were conducted in a similar fashion and we thought nothing of bending over our desk for hours on end with the occasional break for a coffee or a chat.

When I took over the leadership of our Fingerprint Bureau I came to realise that many in the section were suffering from one ailment or another that was linked to this very unnatural position for comparison work. Most of those affected complained of back, neck, and shoulder pain while some were complaining of headaches and eye strain. I think most of us just thought it was just an occupational hazard.



**The Forensic Comparison Software Company** provides software for the Latent Fingerprint Technician for image enhancement, analysis, Comparison, and charting. It also provides an optional AFIS tool for searching small databases of fingerprint of up to 5000, 10,000, and 50,000 individuals and beyond. The Forensic Comparison Software (FCS) is in effect, the multi tool for the Latent Fingerprint Technician, the one stop shop for all of the digital image requirements of the Fingerprint case worker.

The FCS marks a profound shift in the way that fingerprint comparisons are conducted from the manual methods using a magnifying glass to a fully digital automated method that makes the best possible use of digital and personal computer technology. The latest Forensic Comparison Software Version 5 is the result of the close consultation between Forensic Examiners from various law enforcement agencies working with our in-house software programmer to achieve the best possible image management tool for day to day comparison activity.

The founding directors of the FCS Company are John Moloney and Matthew Moloney. John Moloney has an extensive background in Fingerprint Case Work, Crime Scene Examination, Fingerprint Comparison, Disaster Victim Identification, AFIS management, and Police and Immigration Fingerprint Management and Consultancy. Matthew Moloney is an experienced Programmer currently developing advanced software for Microsoft and with experience in software development at eBay.

This close collaboration between a Forensic Specialist Manager with a practical hands-on grasp of Forensic Field and Laboratory work and a Computer programmer with the most up to date techniques available provides the environment where the best possible outcome for the Forensic Examiner is possible."



**From the health & safety point of view going digital saves eye and back strain for bureau and lab staff.**



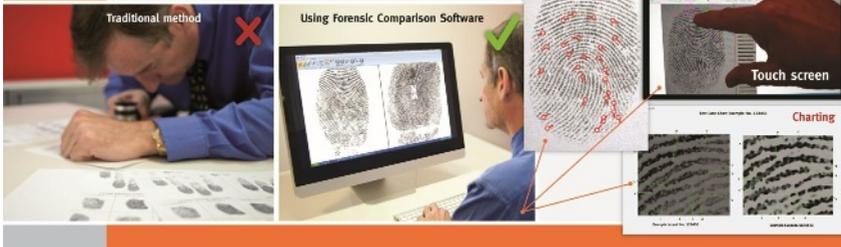
## FCS NOW COMES WITH AFIS MAKING IT THE ONE STOP SHOP FOR ALL OF YOUR FINGERPRINT ANALYSIS, ENHANCEMENT AND SEARCHING NEEDS.

Forensic Comparison Software is the ideal tool for displaying two digital images, side by side, for comparison and image enhancement purposes. The software now comes with the following as standard:

- Touch Screen enabled for use on tablet or touch screen PCs. Allows the user to zoom or orientate using the two finger pinch method for ease of use at the crime scene or lab.
- New Charting tools for even faster and more efficient charting for case file or court, saving hours of preparation work.
- New image enhancement tools providing a cost effective alternative to more expensive and complex enhancement software.
- Image enhancement audit tool to track changes to the image is now included.
- No on-going support contracts needed.

In addition the software comes with the following **AFIS** options:

- 1:n and 1:1 searches. Search as often as you want against as many databases as you want for no extra cost.
- Create your own databases. The user has complete control over how many databases that they create and how many times they search it. Share a database between other users or have individual databases for each user. Your choice.
- Sends and receives NIST files.
- Ideal for small agencies who want an AFIS capability at an affordable price
- Ideal for larger agencies who already have AFIS but who need to search numerous latent fingerprint against known elimination or offender records in major crime or DVI. Saves days of work manually searching outstanding latent fingerprints.



To enquire about Forensic Comparison Software click the link below below:-

URL: <http://forensic-software.com/index.html>

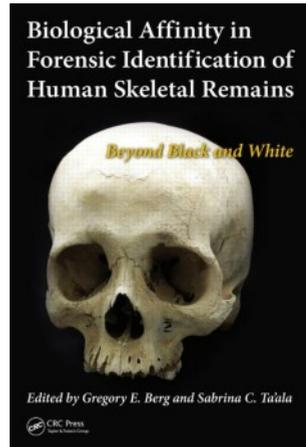
# AUTHOR INTERVIEW

By Mark Listewnik

Senior Editor Forensic Science Books CRC Press

**Gregory E. Berg, PhD, D-ABFA**, is a laboratory manager and forensic anthropologist at the Joint POW/MIA Accounting Command Central Identification Laboratory in Hawaii, where he works on the recovery and identification of missing US service personnel.

**Sabrina C. Ta'ala, MA, MBA**, is an adjunct professor at Pikes Peak Community College and a lecturer at the University of Colorado, Colorado Springs, teaching courses in forensic, physical, and cultural anthropology.



ML: I'm Mark Listewnik, Senior Editor of Forensic Science books at CRC Press. We're talking to Greg Berg and Sabrina Ta'ala—authors of the recently published book Biological Affinity in Forensic Identification of Human Skeletal Remains: Beyond Black and White available for purchase now from [www.crcpress.com](http://www.crcpress.com).

ML: Thank you both for taking the time to talk with me today.

Thanks for the opportunity to talk about this book; we're very excited about it!

ML: Can you tell me who the audience you had in mind in writing the book and what your motivation was to write it?

Our intended audience includes not only forensic investigators tasked with human skeletal analysis, like ourselves, but also students seeking to learn about all the various ways forensic anthropologists can establish the biological profile for a set of unknown remains. We have both taught human osteology and forensic anthropology at various colleges, and we know how important it is to be able to refer students to techniques that are practical, not just theoretical.

Our motivation to put this book together came from our own experience with conducting human skeletal analyses in the context of identifying remains of missing US service members for the Joint POW/MIA Accounting Command Central ID Lab (JPAC/CIL). With every skeletal case, we sought to determine, among other things, the biological profile: age, ancestry, sex, and stature. For ancestry (or biological affinity) estimates, we typically relied on both metric and non-metric analyses.

We found ourselves turning time and again to the same old published studies, and over the years grew increasingly frustrated with the lack of innovation in ancestry estimation techniques, compared to studies focused on the other aspects of the biological profile. Nearly every month, new tools are presented in the literature focused on age, sex, and stature estimation techniques; comparatively fewer studies are focused on ancestry.

ML: Age, sex, stature, and ancestry are particularly difficult to assess in skeletal remains and the book examines a number of new techniques and methods to evaluate ancestry. Can you go into this a bit ... as well as some of the new DNA techniques that have become available in the last several years that the book covers?

First and foremost, we really wanted to focus on methods that are not only cutting edge, but also practical. Our desire was that a practitioner could pick up this volume and apply one or more methods outlined in the book, as applicable to the case they have on the table in front of them. And more specifically, we wanted the methods to employ more than just the two classic populations that are so frequently found in US scientific literature. The difficulty factor often comes into play when having to evaluate variable states—for instance, morphological traits of the skull—or when having to apply statistical methods/procedures that are often times outside of the norm. Several of the studies in this book allow for the anthropologist to do just that, with relative ease. Other studies, such as the DNA chapters, focus on giving the practitioner the background knowledge they need in order to effectively interface with molecular biologists, to be able to order the right type of tests, or to be able to see how specialty tests can be applied to the question of assessing ancestry. Finally, the intro to the book really sets the stage for these methods....where we've been in the past, and why we must move into the future.

ML: In the book the opening chapter looks a lot at the history of biological typology, the race concepts, and the beginnings of forensic anthropology as a discipline, developing out of physical anthropology. You show that it has really come a long way. Where do you see forensic anthropology today and, in this, what do you hope the book can provide to the field?

Relatively speaking, forensic anthropology is a young field. Until recently, forensic anthropologists were simply experts in physical anthropology (and often archaeology) who applied their expertise in forensic contexts when the need called for it. More and more, students are going into programs with the intent to gain training specifically in forensic anthropology. As a sub-field, it has really begun to develop an identity of its own, above and beyond related fields such as general physical anthropology, bio-archaeology, paleopathology, etc.

Forensic anthropology will always, to some extent, rely on "the basics" - well-developed osteological techniques that have been used for decades to establish the biological profile. What is happening today is that those classic techniques are being challenged and refined, particularly with applications of novel data sets, sophisticated statistical applications, and new technologies such as three-dimensional scanning. We wanted to publish this book because we feel there is a great need for practitioners and students to have ready access to a wide array of tools with which to establish the biological profile, particularly ancestry. We have often felt we had little choice but to rely on the same old techniques people have used for years because there simply was nothing better out there.

We decided to call the book "Beyond Black and White" because one of the most important lines of inquiry now in terms of particularly ancestry determination is the way in which individual populations vary. The field of anthropology has moved well beyond the paradigm that presumed the human species could be subdivided into a finite group of definable "races". Population variation is complex and nuanced, so techniques for estimating where a person's ancestors came from must be equally nuanced. This is where molecular anthropology comes in. The things we currently don't know about human DNA are almost as exciting as the things we do know. So molecular anthropology is in a very dynamic period right now, where every year brings new insights, new techniques, and new promising lines of inquiry.

ML: Forensic anthropologists currently rely on morphometric and morphological techniques to assess the ancestry of unknown skeletal remains. Are there any developments that you see on the horizon that may have an impact on the application and utility of forensic anthropology in the future.

As alluded to above, it is quite possible that advanced DNA testing, using mitochondrial and nuclear DNA, might eventually render some of the more traditional techniques obsolete. But at this time, such testing is relegated to only a few laboratories across the country, which are over-worked and under-funded. In addition, the testing is not cheap, takes quite a bit of time, and many departments don't have the funding to support specialty testing, let alone interpreting the results. Unfortunately, the forensic sciences are not at the point most popular TV shows would have you believe; the case is not solved in a matter of hours or even days. Regardless of the promise of future innovations in forensic science, the methods published in our book present a practical toolkit we hope will allow forensic anthropologists to expand their repertoire of strategies for accomplishing their work quickly, accurately, and cheaply.

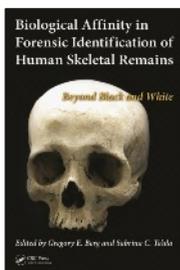
ML: If there is any one thing that you want people to take away from the book, what would it be?

Human "race" is not about black and white. It is about infinite combinations of genetically and environmentally influenced factors that have generated a wide array of variation within our species. But the fact we cannot subdivide our species into tidy, well-defined racial categories does not mean we should throw up our hands and give up on the possibility of identifying the ancestry or biological affinity of an individual. We can very often tell where a person's ancestors came from, by examining their skeletal remains, and it is a crucial aspect of human identification. Forensic anthropologists do not have the luxury of simply declaring "race doesn't exist, so we're just not going to talk about it." We must continue to develop innovative ways of assessing biological affinity, and that is why we have published this book.

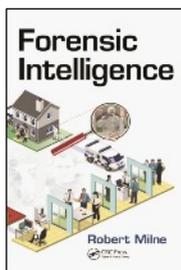
Greg, Sabrina – thank you both again for taking the time to discuss the book. We really appreciate it!

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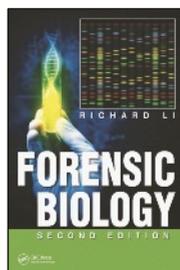
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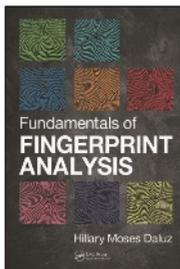
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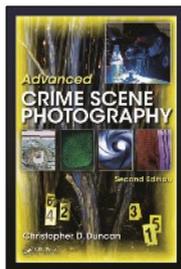
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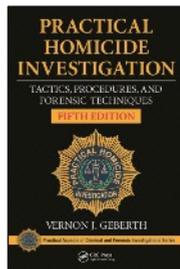
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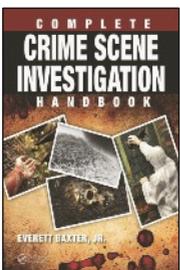
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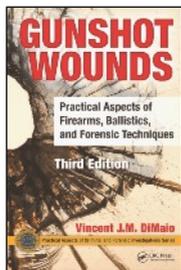
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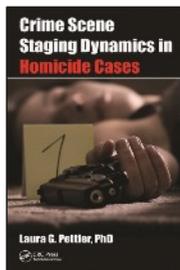
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# PROTECTING CRIME SCENES FROM MOBILE PHONE SNOOPERS

**‘THE CSI PREMIERE  
CRIME SCENE  
SCREENING SYSTEM’**



**Screening a crime scene** from video recording or photography by persons not involved in the case can at least be unwelcome and at worst can compromise press release strategies by police in serious crime cases, by denying investigators the option of holding back information, which only the perpetrator, the victim(s) and investigators would know. Without a doubt through social media unsolicited images and facts about a case can be shared very publicly, worldwide in no time at all.

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The screens have easy to erect stands and the means of fixing or holding them down in the most awkward of situations.

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## The Whitechapel Society

**Official Meetings**  
are held on the first Saturday of -

**February, April, June,  
August, October and  
December**

**Doors open at 7.00pm  
at:-**

### **DIRTY DICKS**

202 Bishopsgate  
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### **INTERIM MEETINGS**

*"A chance to talk with  
like-minded people"*

Please note that Interim meetings are  
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**THE WHITE HART**  
89 Whitechapel High Street,  
London, E1 7RA

The evening commences at  
7.30pm

The first Saturday of -

**January, March, May, July,  
September and November**

# The Whitechapel Society

The Whitechapel Society 1888 is a historical society that promotes the study of the Whitechapel murders and the social impact that this event had on the East End of London.

Victorian and Edwardian life and culture in the East End of London also features in the interest of the Society along with other true crime events that are often intertwined with the Whitechapel murder and the East End in general.

**GHOSTLY  
MURDER  
IN THE EAST-END.  
DREADFUL MUTILATION OF A WOMAN.**

**Capture: Leather Apron**

Another murder of a character even more diabolical than that perpetrated in Bark's Row, on Friday week, was discovered in the same neighbourhood, on Saturday morning. At about six o'clock a woman was found lying in a back yard at the foot of a passage leading to a lodging house in a Old Brown's Lane, Spitalfields. The house is occupied by a Mrs. Richardson, who lets it out to lodgers, and the door which admits to this passage, at the foot of which lies the yard where the body was found, is always open for the convenience of lodgers. A lodger named Davis was going down to work at the time mentioned and found the woman lying on her back close to the flight of steps leading into the yard. Her throat was cut in a fearful manner. The woman's body had been completely ripped open and the heart and other organs lying about the place, and portions of the entrails round the victim's neck. An excited crowd gathered in front of Mrs. Richardson's house and also round the mortuary in old Montague Street, whither the body was quickly conveyed. As the body lies in the rough coffin in which it has been placed in the mortuary - the same coffin in which the undertaker, Mrs. Nicholls was first placed - it presents a fearful sight. The body is that of a woman about 45 years of age. The height is exactly five feet. The complexion is fair, with wavy brown hair; the eyes are blue, and two lower teeth have been knocked out. The nose is rather large and prominent.

**Society website and membership information**

URL: <http://www.whitechapelsociety.com/>



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9-11TH OCTOBER 2015  
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