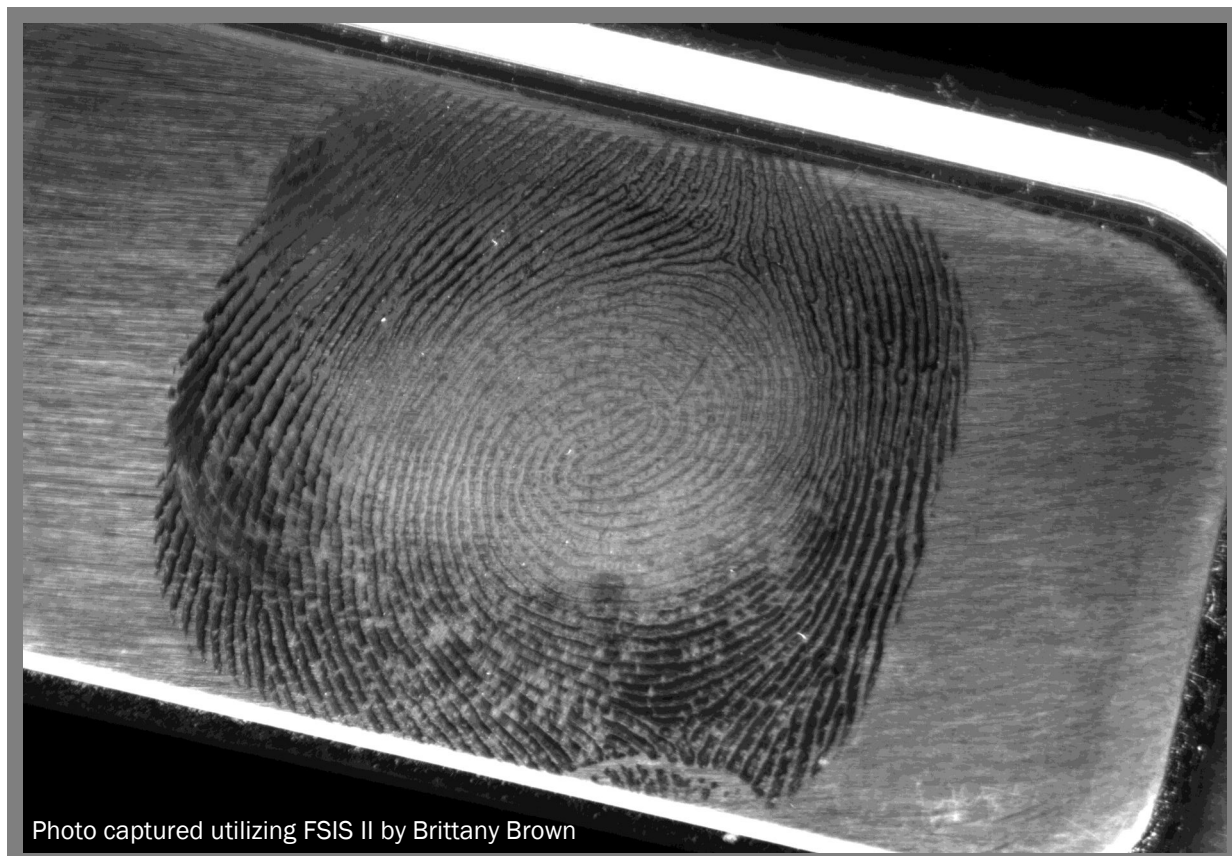
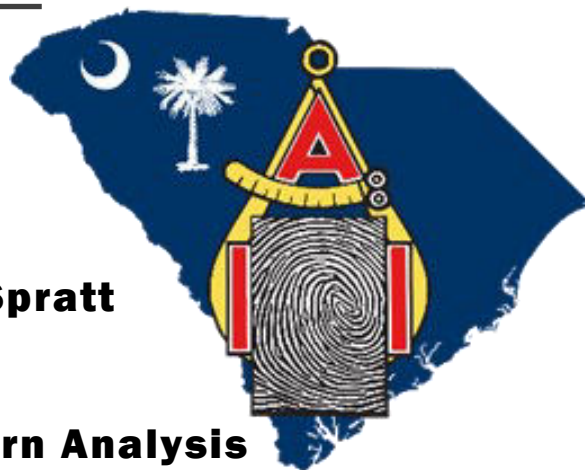


THE IDENTIFIER



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- 3 Lights & 2 Filters

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2022 SCIAI Conference Recap

Thank you to all who attended our spring conference! The conference's attendance showed that former President Chris Gary went above and beyond to achieve a successful 3-day Conference at City of Greer's Event Center. This conference hosted 20 speakers and had over 60 attendees from representing agencies across the state of South Carolina!

Workshops included hands on training for Latent Print Processing, Processing Blood Evidence, and Basic Crime!

Attendees were able to attend the social event sponsored by Foray Technologies at Upstate Archery Academy during Day 2 of the conference!



MEET THE OFFICERS

- **Luke Spratt – President**
- **Chris Wilson – 1st Vice President**
- **Anita Moore – 2nd Vice President & Historian**
- **Chris Gary – Secretary & State Representative**
- **Harold Bouknight – Sergeant at Arms**
- **Tyler Bucholtz – Treasurer**
- **Brittany Brown – Editor**
- **Jeffrey Scott – Vendor Representative**



INTERVIEW WITH AN OFFICER

Getting To Know Your 2022-2023 Appointed Officers

During each issue of *The Identifier*, we will take time to introduce some of the newly appointed SCIAI officers in order to introduce our members to get their elected officers better. For this issue, we interviewed the SCIAI's newly appointed president Luke Spratt, who shared with us his goals, visions for the future, advice learned during his career and hobbies he enjoys on his time off.



MEET Luke Spratt, President

- **Tell us about your work experience. How long have you been a practitioner in the field and what is your current position?** I have been a Crime Scene Investigator for 7 years now. I started back in 2015 with Charleston Police Department where I still am today. In addition to my Crime Scene duties; I am a Certified Firearms Specialist and along with my co-worker; we run our IBIS/NIBIN site at CPD.
- **What do you enjoy most about your job?** The variety. I don't think any of us at least in crime scene got into this job for repetitiveness. While it happens less often I still enjoy the "thrill" of going to a call and figuring out my action plan.
- **What are you passionate about or what hobbies do you enjoy (this does not have to be work-related!)?** Photography, Running, and Craft Beer! Photography has become a hobby outside of my crime scene duties but the hobby has definitely helped me professionally as well. I love having to look at photography in different ways when out doing "artsy" shoots versus my "true and accurate" photographs on scene. As far as running, I have been doing races now since 2013 and have run everything from 5ks to 2 full marathons. It is my stress relief and social life. I belong to multiple running clubs here in Charleston. Lastly, craft beer. Also a social aspect of my life and it goes along with running. I love running with friends to a brewery and rewarding our run with a good beer.
- **Is there a training course or certification you have completed that you feel has furthered your career?** Hands down a 40-hour bloodstain class. I took a class with SeeMore Forensics a few years ago and it not only sparked my interest in BPA but gave me a good foundation to use on scenes with some more complex stains. While I am not a BPA expert by a longshot I am confident in my ability now to properly document the scene in a way that an expert can review the case later if needed. I highly recommend finding a way to complete this foundational class.

(Continued on page 5)

INTERVIEW WITH AN OFFICER

- **What is your vision (or what goals do you have) for the SCIAI?** I am so proud of the foundation that our past officers have laid for this installment of the SCIAI since 2017. After I was elected at this past conference I was told by multiple vendors- who get to see all sorts of organizations including other state divisions of the IA- that they are very impressed with the organization we have built. I hope to build on that. I know that training can be hard to come by in the state or very expensive. I hope to bring more workshops and/or roundtable type trainings to our state. It is crucial that we all have access to affordable training opportunities to better ourselves professionally. Additionally, I plan to bring another stellar conference either solely as a division or possibly as a joint venture with other neighboring state divisions. Lastly, I want to focus on targeting members from organizations that have not been involved yet such as our state and federal partners. If I can help foster connections with our partners I know there will be huge benefits especially when it comes to multi-jurisdictional events. Overall I hope to continue the momentum this great organization has been rolling with and add what I can to keep improving the SCIAI.

SCIAI ANNOUNCEMENTS

- **ALL MEMBERS** are encouraged to review the SCIAI constitution and by-laws posted on the website located under the News tab.
- Renewal for memberships must be submitted by Thursday June 30th 2022 for the upcoming years' membership.
- Submissions for case study features and Member Spotlights are open. We want to highlight our members and interesting or unique cases that you have personally been involved with. If you would like to see yourself, a coworker, or one of your cases featured, please contact the Editor at bribrown@greenvillecounty.org
- Have a topic you would like to see covered or have an article you would like to submit for future issues of *The Identifier*? Submit your proposals to the Editor at bribrown@greenvillecounty.org — guest authors are welcome!
- If you've taken a newsletter appropriate forensic related photograph that you would like to see featured in an upcoming issue of The Identifier — Please contact the Editor at bribrown@greenvillecounty.org!

Training Recap:

March 4th, 2022

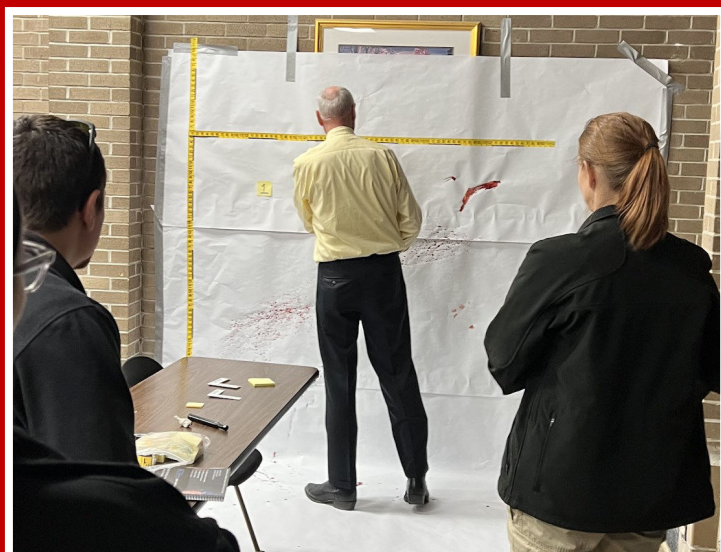
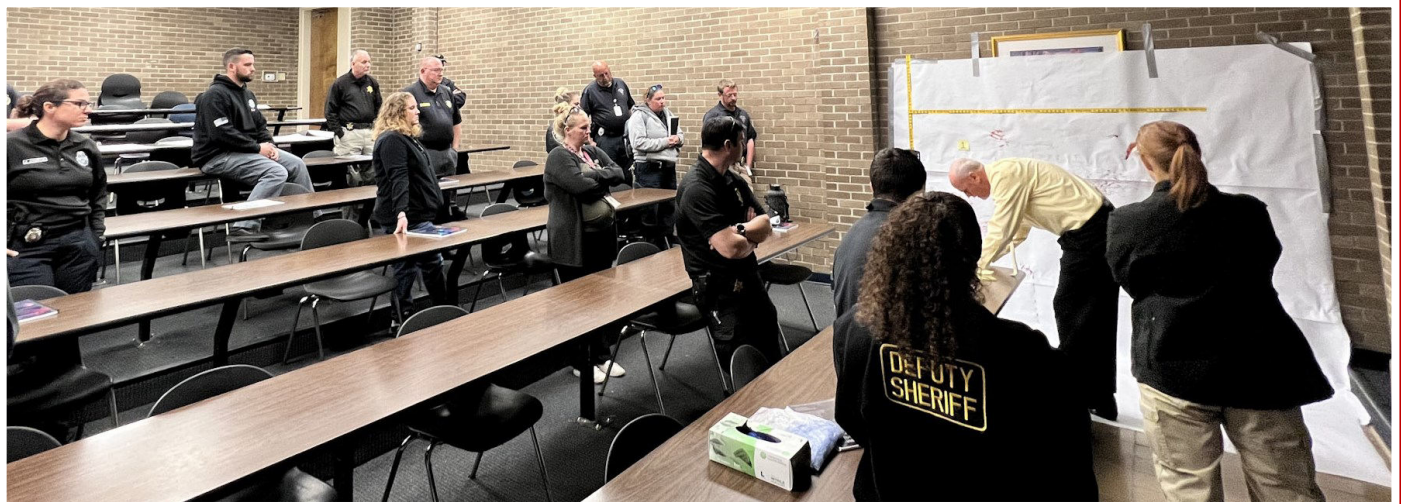
Bloodstain Pattern Analysis

SCIAI hosted an 8 hour Bloodstain Pattern Analysis class presented by Ross Gardner of Gardner of Bevel, Gardner & Associates Inc. There was a Lunch-n-Learn provided by Bluestar Forensics. This class was featured at the South Carolina Criminal Justice Academy in Columbia, SC. This class was available for 30 members or non-members and was filled in a matter of hours after its announcement.

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Ross Gardner is an experienced Senior Crime Scene Analyst and is an active instructor throughout the United States in the topics of crime scene analysis, bloodstain pattern analysis, and crime scene investigation. Ross travels to teach a variety of groups including police and investigative organizations. He has authored and co-authored numerous textbooks within the discipline of crime scene and bloodstain pattern analysis.

IN THE NEWS

Published: January 17, 2022

Crime Scene Documentation:

Weighing the Merits of Three-Dimensional Laser Scanning

The reliability, interpretability, and cost-benefit of three-dimensional laser-scanned images for crime scene documentation is assessed.

Reliable documentation of evidence generally begins at the crime scene. Historically, this documentation has occurred through only a few means: photography, hand drawn sketches, and two-dimensional diagrams created using surveying equipment and mapping software. For the most part, these are fairly inexpensive, relatively low-tech options that do not require excessive training to complete them properly. Three-dimensional laser scanning, a type of geospatial technology, has the potential to become a powerful tool in the crime scene documentation tool kit. While three-dimensional laser scanning can produce beautiful images and take precise measurements, it can be expensive to buy equipment and it generally requires a certain level of expertise to be used correctly. If researchers can demonstrate that this method is superior to others and that judges and juries will accept its merits, it may be worth the investment.

NIJ-supported researchers at the University of Tennessee performed a cost-benefit analysis of the three most widely used methods of crime scene documentation to determine the value of three-dimensional laser scanners compared to traditional approaches. The data were examined to understand the strengths and drawbacks of three-dimensional visuals in comparison to other documentation methods. Researchers assessed which visual aids are the most informative, fair, and accurate by asking lay people and forensic professionals to interpret mock crime scenes. This was done to accurately approximate how a judge and jury might perceive this type of evidence.

Study Findings

The research team created mock indoor and outdoor crime scenes to compare the precision and reliability of traditional crime scene documentation methods versus three-dimensional laser-scanned representations. Researchers asked lay people and forensics professionals questions about the crime scene based on the documentation generated by each method to evaluate how well each method depicted the crime scene and the associated evidence. Estimates of accuracy (based on the number of correct observations of the evidence depicted in each image) were used to examine trends associated with crime scene interpretation based on the age, sex, and/or profession of the survey respondents, and respondents were also asked about their general feelings toward each documentation method (i.e., preference, trust).

(Continued on page 8)

IN THE NEWS

Crime Scene Documentation:

Weighing the Merits of Three-Dimensional Laser Scanning

The research indicated that:

- Three-dimensional videos were the preferred documentation and photographs were second.
- Two-dimensional diagrams and photos yielded the highest average accuracies.
- Three-dimensional scanning technology is not quite as accurate, and is more expensive and harder to train on.

Based on the cost-benefit analysis of the documentation methods (three-dimensional laser scanner, photography, two-dimensional topographic diagrams, and scene sketches):

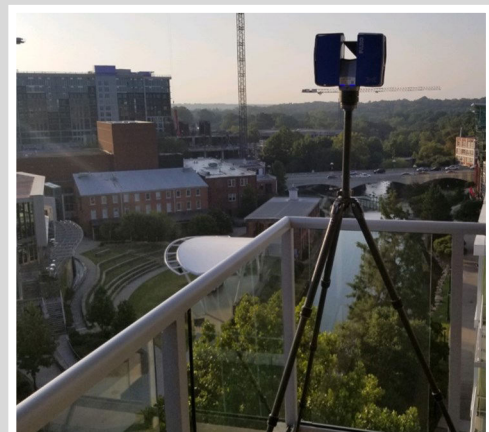
- Hand-drawn sketches are the least expensive to produce (\$0.79/minute), followed by photography (\$126/minute), two-dimensional diagrams (\$297/minute), and three-dimensional scanners (\$852/minute).
- In terms of labor intensity, photography captures evidence most quickly (7 minutes), followed by hand-drawn sketches (66 minutes), three-dimensional scanners (81 minutes), and two-dimensional diagrams capture evidence most slowly (94 minutes to final product).
- The average cost of equipment was least expensive for hand-drawn sketches (\$82), followed by photography (\$882), two-dimensional diagrams (\$28,000), and three-dimensional scanners (\$69,000).

The average training cost for hand-drawn sketches was the least expensive (\$1,000), while the other three methods all cost around \$2,500 for training.

Practice Implications and Limitations

The data from this study can be used to better inform the budgetary and training decisions for forensics teams regarding the acquisition and utilization of three-dimensional scanners. Further, the criminal justice community can utilize the data regarding the three-dimensional laser scanning in the courtroom to provide estimates of accuracy and reliability in crime scene reconstruction to judges and juries.

(Continued on page 9)



IN THE NEWS

Crime Scene Documentation:

Weighing the Merits of Three-Dimensional Laser Scanning

Three-dimensional scanner video was the preferred method of documentation. As one law enforcement officer who was interviewed in the study put it: “It also allows a ‘virtual’ return to the crime scene to reevaluate evidence.” But three-dimensional laser scanning comes with the most significant cost in terms of training and equipment.

One of the interviewees stated that they preferred three-dimensional video “because it captures all parts of the crime scene at different angles, whereas the other methods do not. The three-dimensional method doesn’t leave room for people to imagine or fill in what is originally missing because the whole scene is given.”

However, there are some caveats with the use of three-dimensional laser scanning in this study, namely:

- An explanation of three-dimensional laser technology was not given to the survey takers, so there is uncertainty as to whether the results can be transferred to what a jury might think since a jury would get an explanation of the technology.
- Three-dimensional scene fly-through videos were not paused (but can be paused in real life) so as not to confuse the comparison to photographs.
- Measurement data was not recorded with the three-dimensional technology, but it is known to be more accurate (up to 1mm) than a tape measure (up to ¼ inch).

While three-dimensional products were preferred, many survey respondents (taken to represent potential jurors) were more hesitant about the validity of the data and wondered how it could be manipulated so as to obfuscate the truth. As one survey respondent noted, “These data suggest that, without proper explanations of three-dimensional scan technology, the policies and procedures required to create a three-dimensional video, and an explanation of the verifiable accuracy of the data, a jury may not trust a three-dimensional video.”

About This Article:

The work described in this article was supported by NIJ award number [2016-DN-BX-0177](#), awarded to The University of Tennessee. This article is based on the grantee report “[Implications of Three-Dimensional Laser Scanned Images for the Criminal Justice System](#)” (pdf, 70 pages), by Giovanna M. Vidoli, Ph.D., Joanne Devlin, and Jenna Watson, The University of Tennessee; Michael Kenyhercz, Department of POW/MIA Accounting Agency; and Jason Keller, Naval Criminal Investigative Service.

FUN With Forensics

Frequently in the field of Forensics, we, as a whole, deal with a variety of difficult and demanding scenes, tough scenarios, and are often placed in stressful situations. This panel is designed for you to have the opportunity take a quick mental break, refresh your mind, and also to have a little fun. 😊

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 A N L I F T S H S I N N C N H
 U P A O A P E E R I T O N O O
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| Cartridge | DNA | Forensic | Photographs | Weapon |
| Casing | Drugs | F Stop | Projectile | Witness |

*Words can be found forwards, backwards, vertically, and diagonally.
 Letters can also overlap.*



After all the above words have been located in the word search, the unused remaining letters left in the word search will form a hidden message!



_____, _____!

UPCOMING TRAINING/EVENTS

Jun 14th—Jun 16th 2022: Louisiana Division IAI Conference

Hosted by LAIAI in Baton Rouge, LA—virtual option available

Jun 28th—Jul 1st 2022: Coroner's Training Conference

Hosted by South Carolina Coroner's Association in Myrtle Beach, SC

Jun 21st—Jun 23rd 2022: Crime Scene Photography Techniques

Forensic Training Source, 3 day 24 hour course @ SCELOA in Columbia, SC

Jul 18th—Jul 22nd 2022: Crime Scene Investigations

TriTech Training, 5 day 40 hour course @ Columbia Police Department, Columbia, SC

Jul 25th—Jul 29th 2022: Crime Scene Photography Techniques

Forensic Training Source, 40 hour course @ Pigeon Forge Police Department, Pigeon Forge, TN

Aug 29—Sept 2nd 2022: Crime Scene Photography Techniques

Forensic Training Source, 40 hour course @ Huntsville Police Department in Huntsville, TX

If you have upcoming training that you would like advertised in the newsletter, contact the Editor with course information and details!

EMPLOYMENT OPPORTUNITIES

Greenville County: [Forensic Evidence Technician](#)

US Secret Service, Myrtle Beach: [Criminal Investigator—Special Agent](#)

SLED: [DNA Analyst/Criminalist](#)

North Charleston: [Forensic Pathologist](#)



Editor: Brittany Brown bribrown@greenvillecounty.org