A CSI STORY: THE PAST, PRESENT, AND FUTURE OF CRIME SCENE COLLECTION AND WHAT LITIGATORS NEED TO KNOW

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I. Introduction

Forensic science applies scientific principles and technology to solve criminal investigations.¹ Those who use forensic science techniques at crime scenes are called by various names: crime scene investigators ("CSIs"), crime scene technicians, criminalists, detectives, investigating officers, evidence technicians, *et cetera*.² These individuals attempt to reconstruct a crime scene to establish the identity of persons associated with the crime and determine how it occurred.³ Such a reconstruction requires a careful

The term "forensic science" encompasses a broad range of disciplines, each with its own distinct practices. The forensic science disciplines exhibit wide variability with regard to techniques, methodologies, reliability, level of error, research, general acceptability, and published material . . . some of the disciplines are laboratory based . . .; others are based on expert interpretation of observed patterns . . . Some activities require the skills and analytical expertise of individuals trained as scientists . . .; other activities are conducted by scientists as well as by individuals trained in law enforcement . . . medicine . . . or laboratory methods . . . *Id.*

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^{1.} JACQUELINE T. FISH ET AL., CRIME SCENE INVESTIGATION 4 (3d ed. 2014). The National Academy of Sciences has categorized the forensic science disciplines as "1. general toxicology; 2. firearms/toolmarks; 3. questioned documents; 4. trace evidence; 5. controlled substances; 6. biological/serology screening (including DNA analysis); 7. fire debris/arson analysis; 8. impression evidence; 9. blood pattern analysis; 10. crime scene investigation; 11. medicolegal death investigation; and 12. digital evidence." NAT'L RESEARCH COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD 38 (2009), https://www.nap.edu/read/12589.

^{2.} For the sake of ease, the abbreviation "CSI" will be used to describe a person who collects and processes evidence at a crime scene.

^{3.} FISH ET AL., supra note 1, at 55.

evaluation of physical evidence at the crime scene.⁴ CSIs must be extremely detailed, patient, and methodical in their collection of physical evidence at the scene.⁵ Otherwise, defense attorneys will later accuse the CSI of collecting evidence that is "contaminated, compromised, and corrupted."⁶

Photographs, diagrams, sketches, shoeprint or tire track casts, biological evidence, fingerprints, and physical evidence found at the crime scene all serve various purposes and functions in establishing proof beyond a reasonable doubt at a criminal trial. In most violent crime trials—most importantly in homicide cases—the physical evidence collected at the crime scene is front and center in the jurors' eyes and minds. Such evidence is generally admitted at trial alongside expert witnesses willing to testify that the particular piece of evidence found at the crime scene or biological sample or print taken at the scene matches a particular characteristic unique to the defendant.

While a DNA match or footprint match linking the defendant to the crime scene is discussed extensively at trial, the people who collected the evidence at the scene and the method by which that evidence was processed are usually given little attention. A defense attorney might add it to their overall "sloppy police work" theory, but otherwise they will generally gloss over the collection of such evidence at trial.

Today, most television and movie crime dramas discuss the work of the CSIs and show these investigators in the field collecting evidence and later analyzing the physical evidence in a laboratory. The CSIs on TV testify at trial about how they collected and analyzed the evidence, and then provide their own expert opinions based on the tests they conducted.

On TV, only one person does these multi-faceted jobs but, in reality, many individuals perform these tasks. Those in the field collecting the evidence rarely analyze the evidence in the lab, nor do they reach conclusions on whether the defendant is associated with such evidence. That is the lab technician's job. Although CSIs in the field do not analyze the evidence they collect, they are

^{4.} Id. at 55-56.

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^{6.} CNN O.J. Simpson Trial News: January Transcripts, CNN (1995), http://www.cnn.com/US/OJ/trial/jan/0130OJTR.ZIP [hereinafter Jan. 30 Transcripts] (Jan. 30, 1995 trial transcripts).

^{7.} FISH ET AL., *supra* note 1, at 1–2.

nevertheless experts in their own respect. The forensic evidence they collect assists in establishing the elements of a crime or crimes and is often more reliable than eyewitness testimony.

In 2009, the National Academy of Sciences ("NAS") published a report indicating that, apart from DNA testing, "no forensic method has been rigorously shown to have the capacity to consistently and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source."8 More recently, in 2015, the Federal Bureau of Investigation ("FBI") reviewed more than 250 cases and found that in nearly every one the forensic scientist overstated forensic matches between hair found at the crime scene and the hair of the defendant. Likewise, bite mark analysis, blood spatter results, and fingerprint matches have all come under attack in recent years. 10 In 2009, a NAS report recommended these forensic disciplines subjective "develop rigorous protocols to guide these interpretations" to ensure reliability.11 However, the NAS gave little mention or guidance for CSIs collecting hair or DNA samples; photographing, sketching, mapping or video recording the scene; making tire, shoe, or fluid track impressions; dusting or lifting latent finger prints; assisting in burial recovery; identifying blood stain patterns at the scene; or conducting a shooting incident reconstruction.¹² These investigators are vital to solving

[C]rime scene evidence collectors can include uniformed officers, detectives, crime scene investigators, criminalists, forensic scientists, coroners, medical examiners, hospital personnel, photographers, and arson investigators. Thus, the nature and process of crime scene investigation varies dramatically across jurisdictions, with the potential for inconsistent policies and procedures and bias. Some analysts say that the lack of standards and oversight can result in deliberate deception of suspects, witnesses, and the courts; fraud; and 'honest mistakes' made because of haste, inexperience, or lack of a scientific background.

Id. at 56-57. Rather than addressing these concerns in its report, the NAS references the 2000 National Institute of Justice's Crime Scene Investigation Guide for Law Enforcement as

^{8.} NAT'L RESEARCH COUNCIL, *supra* note 1, at 7.

^{9.} Spencer S. Hsu, FBI Admits Errors at Trials: False Matches on Crime-Scene Hair, WASH. POST, Apr. 19, 2015, at A20.

^{10.} See Jordan Smith, White House Report Concludes That Bite-mark Analysis Is Junk Science, INTERCEPT, (Sept. 7, 2016), https://theintercept.com/2016/09/07/white-house-report-concludes-that-bite-mark-analysis-is-junk-science/; see also Kelly Servick, Reversing the Legacy of Junk Science in the Courtroom, SCI. MAG. (Mar. 7, 2016, 4:30 PM) http://www.sciencemag.org/news/2016/03/reversing-legacy-junk-science-courtroom.

^{11.} NAT'L RESEARCH COUNCIL, supra note 1, at 8, 12.

^{12.} See generally id.

any criminal case, and their strengths, weaknesses, and the protocols they follow must be identified and evaluated.

This article, in Parts II and III, will examine the evolution of crime scene management. Specifically, Part II will evaluate the forensic science (or lack thereof) from a murder trial that occurred in 1840. The analysis of such a trial will reveal how critical pieces of evidence were never collected and how the modern use of evidence collection procedures and scientific testing today would have made a difference in the outcome. Subsequently, Part III will further examine the evolution of crime scene management by evaluating the evidence collection in the O.J. Simpson criminal case in 1994.

By the mid-to-late twentieth century, forensic evidence collected during criminal investigations could make associations between crime scenes, offenders, victims, and weapons.¹³ The methods by which evidence was presented on direct examination and the grueling attacks made by the defense during cross-examination will be explored. It is necessary to evaluate the past to improve upon future collection and processing methods and determine how best to present or critique such methods at trial. It is now standard practice to use physical evidence as corroborative proof to support other evidence that connects a suspect to a victim or a crime scene.¹⁴ Thus, the ways in which blood, markings, DNA, latent prints, hair, fibers, paint, soil, glass, fluid, shoeprints, impressions, tire tracks, bite marks, or ballistics are collected must be examined and evaluated based on professional standards.

Lastly, Part IV will discuss the importance of the CSI's testimony and how it may evolve. CSIs are essential members of any law enforcement investigative team. Prosecutors must initially decide whether CSIs should be considered expert or lay witnesses and then take the time to thoroughly debrief and prepare them for trial. Defense attorneys must familiarize themselves with the particular protocols followed by a CSI's department and take the time to prepare effective cross-examination questions. Similar to the decision by the NAS to improve and critique forensic science

providing proper guidance and suggests that "the lack of standards and proper training at the crime scene can contribute to the difficulties of drawing accurate conclusions once evidence is subjected to forensic laboratory methods." *Id.* at 57.

^{13.} JOSEPH PETERSON & IRA SOMMERS, NAT'L INST. OF JUSTICE, THE ROLE AND IMPACT OF FORENSIC EVIDENCE IN THE CRIMINAL JUSTICE PROCESS 1–2 (2010).

^{14.} FISH ET AL., supra note 1, at 15.

techniques used in laboratories, there is a comparable need to establish professional standards for evaluating evidence collection protocols. Uniformity in terms, protocol, and training is paramount. CSIs should not be called merely to testify when chain of custody issues are raised at trial. Rather, CSIs go to the heart of whether a piece of evidence is or is not admissible.

II. THE EVOLUTION OF FORENSIC SCIENCE AND EVIDENCE COLLECTION AT CRIME SCENES

A. Crime Scene Investigations in the 19th Century

Before delving into what is currently collected and preserved at crime scenes, it is important to take note of how far crime scene investigations have progressed in the last two centuries. In the nineteenth and early twentieth centuries, most evidence presented at trial consisted of direct testimony from eyewitnesses, confessions made to police or others, circumstantial evidence through witness testimony surrounding the crime, and very limited tangible evidence from the crime scene.¹⁵ This tangible crime scene evidence could only rarely be tied to the defendant at trial.¹⁶

Forensic science and methods of preserving and studying crime scenes have come a long way since the 1800s. The first modern police force was not established in England until 1829, when Parliament passed the Metropolitan Police Act and one thousand officers were asked to patrol the city limits of London.¹⁷ Centralized, municipal police departments in bigger cities did not emerge in the United States until the mid to late 1830s.¹⁸ At that point in time, no local police department would have had the resources to have full-time, specialized crime scene technicians

^{15.} THE SOCIAL HISTORY OF CRIME AND PUNISHMENT IN AMERICA: AN ENCYCLOPEDIA 1828 (Wilbur R. Miller ed., 2012).

^{16.} Use of Forensic Evidence in Court, LAWTEACHER, https://www.lawteacher.net/fre e-law-essays/english-legal-system/use-of-forensic-evidence-in-court.php (last visited Feb. 20, 2018).

^{17.} Police: History – The Beginning of "Modern" Policing in England, JRANK, http://law.jrank.org/pages/1639/Police (last visited Feb. 16, 2017).

^{18.} Gary Potter, *The History of Policing in the United States, Part 1*, POLICE STUD. ONLINE (June 25, 2013), http://plsonline.eku.edu/insidelook/history-policing-united-states-part-1.

collecting evidence.¹⁹ In fact, even today many local police departments and sheriff offices lack the resources to employ their own crime scene investigators and rely upon the training and experience of the patrolmen on the job to collect and preserve the evidence taken at the scene.²⁰

A formal police presence was not only uncommon in the mid-1800s, but the methods by which evidence was collected and analyzed were primitive. For example, England's Metropolitan Police (or New Scotland Yard) did not utilize fingerprint evidence until 1901; using comparison microscopes to identify and compare fired bullets and cartridge cases was not popular until the Sacco and Vanzetti case in 1926; and DNA was not used in the U.S. legal system at all until 1987. For nearly two centuries, with little forensic science or police resources, prosecutors relied solely on whatever the police could gather from witnesses and obvious clues, e.g., instruments and fruits of the crime.

To underscore the significance of forensic evidence, one needs only to review a murder case from the mid-1800s to evaluate what could have been done if forensic science and proper crime scene collection and preservation techniques had been available. Perhaps with today's scientific techniques the 1840 murder of John Templeman would have been solved to the satisfaction of the jury.

^{19.} See id.

^{20.} Lynh Bui, For Crime-Scene Investigators, 'CSI' Is Far from Reality, WASH. POST, Apr. 10, 2016, at C1.

^{21.} Jim Fisher, *Eugene-Francois Vidocq: The World's First Detective*, http://jimfisher.edinboro.edu/forensics/vidocq.html (last updated Jan. 7, 2008).

^{22.} The History of Fingerprints, ONIN.COM, http://onin.com/fp/fphistory.html (last updated Sept. 21, 2017).

^{23.} Norah Rudin & Keith Inman, *Principles and Practices of Forensic Science: The Profession of Forensic Science*, http://plaza.ufl.edu/jhefner/forensic_Timeline.pdf (last updated Feb. 7, 2002).

^{24.} E. H. McKenzie, When Was DNA Testing First Used?, SCIENCING, (Apr. 24, 2017), http://sciencing.com/dna-testing-first-used-5301112.html.

^{25.} Fisher, supra note 21.

B. The 1840 Trial of Richard Gould: Acquittal

On March 16, 1840, in the London borough of Islington, Mr. John Templeman retired to the home where he lived alone.²⁶ The following morning, a neighbor's young daughter, tasked with delivering writing-paper to Templeman, knocked on his door and called his name but received no reply.²⁷ The child's mother proceeded to Templeman's home to check on him, and observed Templeman through his bedroom window, "stretched upon the floor, with both his hands tied with a cord, a bloody stocking tied round his head, so as to bandage his eyes. The floor and carpet were covered with blood, and the deceased's head was literally dashed to pieces."28 A box inside Templeman's drawers where he kept his money had been forced open, and no money was found inside.²⁹ "On searching to ascertain by what means the murderer or murderers had entered, it was found they had broken a pane of glass in the parlor window, which enabled a hand to be put through, for the purpose of undoing the latch on the inside."30 Upon learning of the crime, the police immediately apprehended four suspects, one of whom was Richard Gould.31 All other suspects were eventually cleared, so Gould was the only suspect to be indicted and tried for Templeman's murder.³²

The trial took place on April 14, 1840.³³ Both of Templeman's neighbors, the mother and daughter, testified to what they saw the morning of March 17.³⁴ It was established "[t]he nights of the 16th and 17th were clear and frosty," and "[t]he ground under the window was clayey" yet no one had looked for "any footmarks." One policeman and two surgeons responded to the scene on March 17 after the neighbor contacted the police.³⁶

^{26.} William Courtenay Murray & David Rees, *Dreadful Murder at Islington*, CAMBRIAN (Mar. 28, 1840), http://newspapers.library.wales/view/3329770/3329774/25/LIVERPO OL.

^{27.} Id.

^{28.} Anonymous, Wilson's Remarkable Trials 51 (Gale, Making of Modern Law 2012).

^{29.} Id.

^{30.} Id.

^{31.} *Id*.

^{32.} Id.

^{33.} *Id*.

^{34.} Id. at 51-52.

^{35.} *Id.* at 52.

^{36.} *Id*.

The policeman testified to seeing the body with only a shirt on, and bruises about the deceased's knees and his breast.³⁷ The policeman also found a chest of drawers in the sitting room.³⁸ "The two top drawers had been forced open, apparently by a chisel, found a box in one of the drawers, there was nothing in it, it was open."³⁹ The policeman was not cross-examined by the defense.⁴⁰

One surgeon who accompanied the policeman to the crime scene testified to what he saw at the scene:

Found deceased lying on the floor with his eyes bandaged with a stocking.... There was a good deal of blood on the stocking. Thinks the stocking was saturated with blood on the floor after it was tied over the eyes.... The witness then described the manner in which the hands were tied. Has no doubt deceased struggled after his hands were tied. The wrists were gulled, and the hands and nails were blue, showing that the wrists were tied during the life-time of the deceased. There were several bruises on the face, and a severe blow over the left temple. There was a cut on the nose. The lower jaw was fractured on both sides. There were four clean cuts on the back of the head, one or two bruises on the breastbone, at the junction with the collarbone. The skin on the knees was rubbed up as if he had been struggling. There were about ten ounces of blood on the floor under deceased's head.... Witness found two teeth, and the policeman found another. On examining deceased's jaw he found three teeth had been forced from their sockets, probably by the blow which fractured the jaw; has no doubt but there were several blows inflicted, one or more as deceased was on the pillow. Witness found a small piece of stick with some hair attached to it, and saturated with blood, the hair was like Mr.

^{37.} Id. at 53.

^{38.} *Id*.

^{39.} Id.

^{40.} Id.

Templeman's, the cut on the nose might have been inflicted by a shoe without nails in it. Witness should think that deceased had been dead about five or six hours, when he first saw the body. It was cold, except about the region of the heart. Ten or eleven hours is not an unusual time for the body to retain warmth, and most likely that would have been the case if the body had remained in the bed. Death was owing to the violence witness had described. The stocking round the head was tied in a knot, the blow on the temple was over the stocking.⁴¹

On cross-examination, the surgeon admitted there was "less than sixteen ounces of blood on the pillow and floor altogether" and "the piece of wood he picked up was splintered off a round stick." On re-direct, the surgeon reiterated the "blow on the left temple would occasion instant death" and Templeman "might have been dead longer than five or six hours."

Based on the surgeon's testimony, the jury could surmise the killer possibly kicked Templeman using a shoe without nails in it and that several blows had been inflicted.⁴⁴ The killer most likely used a chisel and a blunt, round object to strike Templeman.⁴⁵ He most likely struggled before his death.⁴⁶ His wrists had been tied prior to death.⁴⁷ Templeman was likely killed five or six hours prior to the police arriving on the scene.⁴⁸

While the surgeon went into a surprising amount of detail about what he observed and concluded from Templeman's body, no observations seemed to link the defendant Gould to the crime scene.⁴⁹ Rather, the prosecution used the testimony of Henry Wright, the potman at the Duchess of Kent public house,⁵⁰ who

^{41.} Id.

^{42.} Id.

^{43.} Id.

^{44.} *Id*.

^{45.} Id.

^{46.} Id.

^{47.} *Id*.

^{48.} *Id*.

^{49.} Id.

^{50.} A potman worked in a public house ("pub") and performed menial tasks, including collecting and washing dirty pots. See Obscure Old English Census Occupations,

had a drink with Gould on March 12 or 13, to suggest Gould had a motive for the murder.⁵¹ Gould told Wright he needed money and he knew of an old man with money in a drawer in his cottage and "where to put his hand upon it."⁵² Wright understood from the conversation "that a robbery was contemplated" and Gould was looking for someone to assist him.⁵³ John Richard Johnson, a friend of Gould, later testified that on March 13 Gould asked him for a "screw," a type of picklock key, because he was going to "serve' an old gentleman who lived in a lonely cottage."⁵⁴

Gould's landlord, Charles Allen, testified that Gould arrived home around three o'clock a.m. on March 17.⁵⁵ Gould left the home later that morning and returned around seven o'clock that night with a new pair of shoes.⁵⁶ Gould "accounted for having money by saying that his relations had given it to him."⁵⁷ The landlord's wife testified that when Gould got up on the morning of March 17, she saw him "in the washhouse, standing by a table, and he was doing something to his trousers, but whether he was rubbing, or whether he was washing them, I cannot say."⁵⁸

James Miller, a police inspector, testified to arresting Gould at his landlord's house.⁵⁹ At the time of arrest, Gould had nine shillings in his pocket.⁶⁰ Miller collected Gould's new pair of shoes (Gould told Miller he had thrown away his old shoes), Gould's waistcoat stained with blood, and a stocking lying beside of Gould's bed.⁶¹ Upon a thorough search of the cottage, police also found "in the rafters of the wash-house and privy, a stocking which contained nineteen half-crowns, forty-eight shillings, and sixpence."⁶²

WORLD THROUGH LENS, http://www.worldthroughthelens.com/family-history/old-occupations.php (last visited Feb. 23, 2018).

53. *Id.* at 55.

^{51.} WILSON'S REMARKABLE TRIALS, supra note 28, at 54.

^{52.} *Id*.

^{54.} Id.

^{55.} Id. at 55-56.

^{56.} Id. at 56.

^{57.} Id.

^{58.} Id. at 57.

^{59.} *Id.* at 58.

^{60.} Id.

^{61.} *Id*.

^{62.} Id.

The defense presented no evidence other than calling a "respectable witness" who testified to Gould's good character. 63 Defense counsel pointed out in closing argument the prosecution had the burden "to prove the guilt of the prisoner beyond any possibility of reasonable doubt, and no man ought to be convicted unless the evidence was clear and conclusive against him." 64 Accordingly, the prosecution did not meet its burden because the evidence presented at trial did not sufficiently point to Gould. 65 The trial lasted thirteen-and-a-half hours. The jury deliberated for ten minutes, finding Richard Gould not guilty. 66

C. The Trial of Richard Gould in 2017: Acquittal Less Likely

The investigators arriving at the scene on the Gould case in 1840 consisted of one policeman and two surgeons who had no training in crime scene collection and processing.⁶⁷ The murder of John Templeman would likely have been solved had the crime occurred in the twenty-first century, since modern day forensic scientific methods and crime scene management techniques would have been used throughout the investigation.

Investigators in 2017 would have preserved the crime scene by establishing a perimeter with yellow crime scene tape to allow technicians and investigators to properly collect potential evidence and process the scene.⁶⁸ A crime scene often holds clues about the perpetrator, and tells the story of what happened during the crime. These clues are often hidden or overlooked by those not experienced in crime scene investigation. Physical evidence in Templeman's cottage could have been the key to solving the crime. Therefore, officers should have prevented any destruction, contamination, or degradation of potential evidence.

The evidence collected at Templeman's cottage could have been used to reconstruct the crime, ascertain the sequence of

^{63.} Id. at 59.

^{64.} Id. at 58.

^{65.} Id. at 58-59.

^{66.} Id. at 59.

^{67.} Forensic Science History, N.Y. ST. POLICE, https://www.troopers.ny.gov/Crime_Lab oratory_System/History/Forensic_Science_History/ (last visited Feb. 20, 2018).

^{68.} See generally NAT'L FORENSIC SCI. TECH. CTR., CRIME SCENE INVESTIGATION: A GUIDE FOR LAW ENFORCEMENT 5 (Sept. 2013).

events, determine the method of attack, disclose the possible motive, and find out most of what the perpetrator did while at the scene.⁶⁹ Specifically, the window latch in the parlor window could have been dusted for fingerprints. In fact, a number of items could have been dusted for prints, such as the dresser and box that had contained the money, and Gould could have been fingerprinted to eliminate him as a suspect.

Templeman's shirt, the cord around his wrists, and the bloody stocking covering his eyes should have been collected and preserved for further analysis. Gloves would have been used and the bloody items would have been packaged in paper bags.⁷⁰ Photographs should have been taken to later provide investigators with a true and accurate representation of the crime scene and to demonstrate the relationship between items with evidentiary value.

The blood found at the scene could have been used to determine the sequence of events and link the suspect to the crime scene. A critical piece of evidence might have been located under the body; perhaps a pool of blood. Blood spatters could have been identified and photographed, and blood stain patterns could have been interpreted. The blood stains recovered at the crime scene could have been used to extract DNA information, and the results could have been run through a database that might have led to the identity of the perpetrator. A blood sample could later have been taken from Gould at the police station to either rule him out as a suspect or identify him as being present at the crime scene.

The perpetrator will often leave trace evidence behind or take away minute material from the scene. At the crime scene, the surgeon found a stick with hair attached to it.⁷¹ This hair could have been tested for DNA. Had the stick been collected at the scene, the investigators might have been able to match it to wood found at the defendant's home, on his clothing, or to another item at the crime scene. In any event, the wood, the pillow, and the bloody stocking could have been collected for additional DNA and print analysis.

The investigators could have preserved the knot on the cord and determined if the culprit was left or right handed and

^{69.} NAT'L RESEARCH COUNCIL, supra note 1, at 36.

^{70.} *Id.* at 35.

^{71.} WILSON'S REMARKABLE TRIALS, supra note 28, at 53.

whether the knot was a signature knot the killer had used before.⁷² Perhaps Gould, when questioned, could have been asked to tie a similar knot. Contact DNA might have also been present on the cord itself, and Gould's hands could also have been swabbed for DNA.

If Templeman and Gould's clothing had been collected, the clothing could have been examined for trace evidence. Common fibers and hair found on both the victim's and suspect's clothing could link the suspect to either the victim or the crime scene or both. The trousers Gould cleaned the day after the murder may have contained blood or carpet fibers from Templeman's cottage. Body fluid secretions or blood found on Gould's waistcoat could have been analyzed to determine his blood type or DNA profile. If Gould's stockings at his home had been collected, investigators could have compared them to the stocking used to kill Templeman in his cottage.

Shoe impressions could have been taken of the footprint indentations under the cottage's parlor window. If a cast and photographs had been taken of the footwear, the investigators could have compared the cast with old shoes found at Gould's home. A trained medical examiner could have precisely estimated the time of death and type of instrument that was used to kill Templeman. Additionally, comparing the room temperature to the body's temperature would have assisted in determining an accurate time of death.

At Gould's home, the investigators could have swabbed the money for DNA and used Blue Star, a blood tracking reagent to display blood droplets unseen by the naked eye,⁷³ to go through Gould's clothing, bathroom sink, and his own bedding to detect any unseen blood. Investigators could have canvased the area and interviewed neighbors that may have been awake at the time of the crime. Family members and friends at the public house should have been interviewed to verify Gould's alibi and his story about the money. At the time of arrest, Gould should have been photographed, including his hands and his clothing.

In conclusion, the lack of forensic science technology and the primitive protocols used to collect and preserve crime scenes

^{72.} NAT'L RESEARCH COUNCIL, supra note 1, at 36.

^{73.} Latent Blood Agent, BLUESTAR FORENSIC, http://www.bluestar-forensic.com/gb/bluestar.php (last visited Feb. 20, 2018).

III. CRIME SCENE INVESTIGATIONS IN THE 20TH CENTURY

A. The 1995 Trial of O.J. Simpson: Another Acquittal

A plethora of books, articles, movies, and TV shows have extensively analyzed the O.J. Simpson investigation and trial. This article intends to address the evidence collection and crime scene management used at the 875 Bundy Drive residence where Nicole Brown Simpson and Ronald Goldman were murdered.⁷⁵

What is clear from over twenty years of commentary analyzing the trial is that the police, detectives, and criminalists involved in the Simpson case did a less-than-stellar job collecting and processing evidence at the scene (or at a minimum, the defense team did a better job of arguing the crime scene investigation was unprofessional and sloppy). Johnnie Cochran, in his opening statement, repeatedly referred to the evidence collected at the various scenes as "contaminated, compromised, and corrupted." According to Cochran, the Los Angeles Police Department's ("LAPD") laboratory was a "cesspool of contamination," and the poorly trained LAPD personnel used "19th century... covered wagon collection procedures."

If forensic science and collection procedures have greatly improved since the nineteenth century, what went wrong?

^{74.} See generally Hisham M. Ramadan, The Challenge of Explaining "Reasonable Doubt," 40 CRIM. L. BULL. 1 (2004).

^{75.} David Margolick, Unbloodied Feet of Nicole Simpson Indicate that She Died First, Investigator Testifies, N.Y. TIMES (Feb. 22, 1995), http://www.nytimes.com/1995/02/22/us/unbloodied-feet-nicole-simpson-indicate-that-she-died-first-investigator.html?pagewanted=all

^{76.} O.J. Simpson Case Taught Police What Not to Do at a Crime Scene, PASADENA STARNEWS, (June 8, 2014, 6:30 PM), http://www.pasadenastarnews.com/generalnews/20140608/oj-simpson-case-taught-police-what-not-to-do-at-a-crime-scene.

^{77.} Jan. 30 Transcripts, supra note 6.

^{78.} Id.

^{79.} Id.

Essentially, the defense proved the investigators did not always follow departmental protocols, the investigators made errors, and, therefore, the defense established reasonable doubt in the minds of the jurors.⁸⁰

The prosecution's case consisted of fifty-eight witnesses.⁸¹ To discuss the issues of improper preservation and collection of evidence at the crime scene and possible "contamination," the testimony of the first responder, LAPD Officer Riske, the LAPD morning assistant watch commander Sergeant David Rossi, and LAPD criminalist Dennis Fung will be examined. For brevity, only the crime scene at 875 Bundy Drive will be discussed.⁸²

B. The Testimony of LAPD Officer Robert Riske

Officer Riske arrived first at the crime scene at 875 Bundy Drive. Riske admitted that, although he spent six months at the Los Angeles Police Academy, crime scene preservation was "gloss[ed] over... they don't really train you. Really He learned during his first year on the job, while on probation: "You're are assigned to a training officer. When you go to a crime scene they tell you... what you're are supposed to do—identification, preservation of evidence, setting up the crime scene."

Once Riske arrived, at 12:13 a.m. on June 13, 1994, he found the two bodies, paw prints on the sidewalk, a heel print and an envelope by the fence near the walkway and the bushes, a glove and a knit cap, and bloody footprints going up the steps towards the house.⁸⁶ Riske entered the home and called the watch commander to report the double homicide then walked to the

^{80.} See Caitlin Gallagher, Why Was O.J. Simpson Found Not Guilty? Jurors Cited Reasonable Doubt, BUSTLE (Apr. 5, 2016), https://www.bustle.com/articles/151739-why-was-oj-simpson-found-not-guilty-jurors-cited-reasonable-doubt.

^{81.} Prosecution Witnesses in the O.J. Simpson Criminal Trial, 'LECTRIC L. LIBR. http://www.lectlaw.com/files/cas52.htm (last visited Mar. 2, 2018).

^{82.} Several other collection issues arose at Rockingham, O.J. Simpson's home, and with the collection of the blood in Simpson's Ford Bronco. *See generally CNN O.J. Simpson Trial News: April Transcripts*, CNN (1995) http://www.cnn.com/US/OJ/trial/apr/0405OJTR.ZIP [hereinafter Apr. 5 Transcript] (Apr. 5, 1995 trial transcripts).

^{83.} CNN O.J. Simpson Trial News: February Transcripts, CNN (1995) http://www.cnn.com/US/OJ/trial/feb/0209OJTR.ZIP [hereinafter Feb. 9 Transcript] (Feb. 9, 1995 trial transcripts).

^{84.} *Id*.

^{85.} *Id*.

^{86.} Id.

neighbor's yard and found a pager behind Ronald Goldman's body, north of the fence in the dirt.⁸⁷ Officer Riske returned to the street and waited for back up, attempting to preserve the integrity of the crime scene by not stepping in any blood on the walkway or around the victims.⁸⁸ Other officers arrived and erected crime scene tape—"the tape in the front went from the neighbor to the north to the neighbor to the south, encompassed the whole three houses."⁸⁹ Officers also placed tape in the rear of the house.⁹⁰

On cross-examination, Johnnie Cochran pointed out that Riske had only about four years of experience as a police officer, and his partner, Officer Terrazas, had only six or seven months. 91 The detectives in charge of the investigation did not arrive at the crime scene for another two hours. 92 The coroner's office did not arrive until after 7:15 a.m.93 Cochran spent a great deal of time identifying what had not been preserved or examined at the crime scene in those initial hours of discovery. 94 Riske had contaminated the house's telephone by not using gloves when he used it to call the watch commander. 95 Riske did not touch the bath water to see if it was hot or cold, 96 nor did he preserve any shoeprints in the area where Mr. Goldman's body was found. 97 Once the photographer arrived, no pictures were taken of the melting ice cream and spoon Riske had seen on the banister inside the house,98 nor were photographs taken of the candles lit inside the master bathroom.⁹⁹ Cochran showed Riske photographs taken after he left the crime scene to argue that evidence could have

^{87.} Id.

^{88.} Id.

^{89.} Id.

^{90.} Id.

^{91.} *Id*.

^{92.} Id.

^{93.} Id.

^{94.} CNN O.J. Simpson Trial News: February Transcripts, CNN 0001, 0084, 0088–89, 0098, 0101, 0111–0112 (1995) http://www.cnn.com/US/OJ/trial/feb/0214OJTR.Z IP [hereinafter Feb. 14 Transcript] (Feb. 14, 1995 trial transcripts).

^{95.} Id.

^{96.} *Id*.

^{97.} *Id*.

^{98.} Id.

^{99.} Id.

been moved between the time the initial crime took place and additional police arrived at the scene.¹⁰⁰

Using a common cross-examination technique, Cochran quibbled with Riske on why his prior written statement did not include many things now in his testimony. Description of the Cochran's focus was on the lack of preservation of the crime scene. Police officers were "allowed to come and go" as they pleased throughout the crime scene, "there are nine or ten people in this little area... some people are wearing gloves, some people aren't. Some people have booties on their shoes, some people don't."

C. The Testimony of LAPD Assistant Watch Commander Sergeant David Rossi

Sergeant Rossi's tasks on the early morning of June 13 were to oversee all the activities of the police officers on the watch, to respond to any homicide to ensure that the scene was secure, and ensure the evidence was protected until the investigating officers arrived. Rossi responded to the 875 Bundy Drive homicide and contacted detectives in West Los Angeles. 105

On cross-examination, F. Lee Bailey pointed out that as Riske's supervisor, Rossi did not preserve the scene himself but merely "took the word of Officer Riske that the crime scene had been secured." He pushed Rossi on his understanding of the difference between a footprint and foot impression:

Assuming if you will, that a footprint is a twodimensional residue of someone having walked somewhere with or without a shoe, and a foot impression is a three-dimensional residue, would you think those worth preserving for the benefit of

^{100.} Id.

^{101.} Feb. 9 Transcript, *supra* note 83. Riske wrote out a statement while still at the scene at about 5:51 a.m. about his involvement on that morning and in that statement, he stated he tried to be accurate. *Id.* Riske did not mention going inside the residence, using the phone inside, or seeing an envelope with O.J. Simpson's name on the return address in his written statement. *Id.*

^{102.} Id.

^{103.} Id.

^{104.} Feb. 14 Transcript, supra note 94.

^{105.} *Id*.

^{106.} Id.

the detectives who might be called upon to solve the case?¹⁰⁷

Bailey would not relent and asked again later on cross-examination:

Q: Do you know what a footprint looks like?

A: Yes, sir.

Q: You do. Can it be seen with the naked eye?

A: Yes.

Q: All footprints can be seen with a naked eye?

A: If they're a footprint, if they're visible, they can be.

Q: Don't you know many footprints can't be seen until they're dusted with powder? . . .

Q: Did you know that some footprints can't be seen except when shown with an oblique light?

A: I suppose it's possible.

Q: Have you ever heard that in all of your training in the 300 homicide scenes you've been at?

A: Yes.

Q: Now, having that in mind, at the time you were there, did it occur to you that a footprint left on the hard surface and not visible to the naked eye could be disrupted by you walking around those bodies?

. . .

A: No . . . I was careful where I walked. 108

Bailey cited a section of the health and safety code requiring individuals to notify the coroner in certain circumstances and a section of the LAPD manual, entitled "notification of the coroner," to argue that Rossi had a duty to call the coroner while in command, and that his failure to do so constituted a misdemeanor offense. Bailey used the LAPD General Reporting Instructions' section on "Conducting the Investigation" to illustrate Rossi had an obligation to establish the elements of the crime and other details relating to who, what, when, where, why and how, and that he had failed in his duties to properly preserve the crime scene. 110

D. The Testimony of LAPD Criminalist Dennis Fung

Dennis Fung, an LAPD criminalist for over twenty years, was assigned to the firearms analysis unit of the Scientific Investigation Division ("SID") and collected evidence at 360 Rockingham (O.J. Simpson's home), 875 Bundy Drive on June 13, 1994, and from a Ford Bronco impounded from the Rockingham residence the following day.¹¹¹

Fung described a criminalist as "somebody who employs the principles of the natural and physical sciences to identify, document, preserve and analyze evidence that is related to a crime" and who "later testifies to his findings in a court of law."¹¹² He had attended seminars by the American Academy of Forensic Sciences and California Association of Criminalists, completed a course in blood spatter interpretation at LAPD, and completed courses in forensic microscopy, footwear identification, and crime scene investigation. ¹¹³

^{108.} Id.

^{109.} CNN O.J. Simpson Trial News: February Transcripts, CNN (1995), http://www.cnn.com/US/OJ/trial/feb/0215OJTR.ZIP (Feb. 15, 1995 trial transcripts). Rossi was in command of the crime scene for forty-five minutes until Detective Phillips arrived. *Id.*

^{110.} Id. "If evidence is not obvious to you it is okay to obliterate it, is that correct?" Id.

^{111.} CNN O.J. Simpson Trial News: April Transcripts, CNN (1995), http://www.cnn.com/US/OJ/trial/apr/0403OJTR.ZIP [hereinafter Apr. 3. Transcript] (Apr. 3, 1995 trial transcripts).

^{112.} Id.

^{113.} *Id.* Blood spatter interpretation is meant to determine the direction from which blood was traveling or made by a gunshot. *Id.* Forensic microscopy is used to deal with trace evidence such as fibers, minerals, and explosives. *Id.* Trace evidence is small particles or evidence such as hair, fiber, soil and glass—comparing knowns to unknowns. *Id.*

Fung had participated in over five hundred crime scene investigations and had qualified as an expert in crime scene investigations around twenty times. 114 During direct examination, Fung was shown photographs of criminalist Andrea Mazzola processing the crime scene, and he explained how they depicted her employing the LAPD's method of collecting blood stains. 115 Mazzola collected blood by selecting a cloth swatch and dampening it with distilled water. 116 She then applied the cloth swatch to an area very close to the blood stain to get a representative substrate control such as the sidewalk. 117

Next, Fung described how Mazzola put the cloth swatch into a plastic baggie with a pair of tweezers. This plastic baggie then went into a labeled coin envelope. Then she would use a tissue, moistened with distilled water, to clean the tweezers she had just used. She then selected another cloth swatch, dampened it, and using a pair of tweezers, applied it to the blood stain to let the blood absorb onto the cloth swatch. She placed it into a plastic bag and placed the plastic bag into the coin envelope (with the photo ID number corresponding to the stain). She cleaned her tweezers before handling each blood stain.

Fung further testified that, while collecting evidence, he wore gloves and picked up each item and placed it into a paper bag (labeled with his initials), or he would use a scoop technique by placing the bag next to the item to be collected and pushing it into the bag with a card or pencil. Fung wrote numbers on all the coin envelopes and inventoried them to make sure he had the right numbers: we collect evidence one at a time making sure that the envelope that we put the evidence in is the same number as the one next to the card."

^{114.} *Id*.

^{115.} *Id*.

^{116.} *Id*.

^{117.} Id.

^{118.} *Id*.

^{119.} Id.

^{120.} Id.

^{121.} *Id*.

^{122.} Id.

^{123.} *Id*.

^{124.} *Id*.

^{125.} Id.

Fung arrived at 875 Bundy Drive at 10:15 a.m. after making a stop at O.J. Simpson's home at Rockingham to collect evidence. Upon Fung's arrival, the coroner was already processing Nicole Brown Simpson's body. Fung and the less experienced criminalist, Mazzola, collected several blood stains around the outside of the residence, a set of keys, a pager, a glove, a blue knit hat, an envelope containing a pair of glasses, and a ring and placed the items in either coin envelopes or paper bags. 128

During direct examination, prosecutor Hank Goldberg asked Fung about general guidelines on how to manage a crime scene:

Q: Mr. Fung, with respect to investigating a crime scene, which we talked a lot about yesterday, is there any single right way or right formula in going about investigating a crime scene?

A: There are general guidelines that people follow; however, there's no single right way in any circumstance.

Q: Is the way that you go about investigating a crime scene subject to different opinions of different forensic experts, criminalists?

A: Yes. 129

Barry Scheck cross-examined Fung for eight days.¹³⁰ Upon leaving the witness stand after those eight days, Fung—bizarrely—shook every defense attorney's hand, including Scheck's and the defendant, O.J. Simpson's.¹³¹ Scheck's cross-examination drove at five distinct points: (1) Fung's notes, crime scene checklist, and diagram were inaccurate; (2) the crime scene had not been

^{126.} Id.

^{127.} Id.

^{128.} Id.

^{129.} CNN O.J. Simpson Trial News: April Transcripts, CNN (1995), http://www.cnn.com/US/OJ/trial/apr/0404OJTR.ZIP [hereinafter Apr. 4 Transcript] (Apr. 4, 1995 trial transcripts).

^{130.} Andrea Ford et al., Fung Testimony Ends; Ito Starts Jury Inquiry, L.A. TIMES (Apr. 19, 1995), http://articles.latimes.com/1995-04-19/news/mn-56402_1_jury-inquiry.

^{131.} Id.

properly preserved prior to Fung's arrival; (3) the crime scene was contaminated; (4) Fung was unfamiliar with, and did not follow, LAPD protocol; and (5) there were inconsistencies between Fung's trial testimony, the prior court hearing, and his grand jury testimony. Scheck also revealed that Fung spent ten hours with the prosecutor preparing for his trial testimony, insinuating that Fung's testimony may have been rehearsed, and that he may have colluded with the other criminalist, Andrea Mazzola, to ensure their testimonies would match up. 134

i. Fung's Crime Scene Checklist Was Inaccurate

"Don't you think it's important to make notes about exactly which method of collection was used?"

—Barry Scheck, cross-examination of Dennis Fung¹³⁵

A standard cross-examination technique is to review an officer's report with the witness and identify the inconsistencies and omissions in those reports to make the witness appear incompetent and incapable of writing an accurate and thorough report. Prior to trial, Scheck must have painstakingly reviewed Fung's notes itemizing the evidence collected at the crime scene, Fung's diagrams taken of the crime scene, and the crime scene checklist filled out at the scene to identify what items were being collected. At trial, Scheck revealed that some boxes on Fung's crime scene checklist had not been completed at the scene. For example, the "by" section, indicating who collected an item, and the "time" section were completed two or three months after the search had been completed. Scheck also quarreled with Fung over his diagrams of the scene, arguing that Fung's measurements were inaccurate on where evidence was found in relation to Fung's

^{132.} Apr. 5 Transcript, supra note 82.

^{133.} Id

^{134.} See CNN O.J. Simpson Trial News: April Transcripts, CNN (1995), http://www.cnn.com/US/OJ/trial/apr/0413OJTR.ZIP (Apr. 13, 1995 trial transcripts).

^{135.} Apr. 4 Transcript, supra note 129. Fung replied, "If it was relevant." Id.

 $^{136. \ \ \}textit{Cross Examination - Impeachment}, \ \texttt{TRIALCOACH} \ (2015), \ \texttt{http://trial-coach.com/cross-examination/impeachment/}.$

^{137.} Apr. 5 Transcript, supra note 82.

^{138.} Id.

point of reference.¹³⁹ Fung had mistakenly written "west wall of guest house" on the diagram instead of "west wall of the garage."¹⁴⁰

ii. Police Failed to Preserve the Crime Scene

"By the time you arrived at Bundy, it was something on the order of ten hours, to your knowledge, from when the bodies were first found?"

—Barry Scheck, cross-examination of Dennis Fung¹⁴¹

Scheck made it clear the crime scene was not properly preserved for many reasons, but one of the main reasons was that Fung and Mazzola took over ten hours to arrive at the crime scene after Officer Riske had originally arrived. Scheck asked if there were any rules or procedures on how long it should take a criminalist to arrive at a crime scene once they receive a call, and Fung admitted they attempt to "respond within an hour if it's possible. This information put this case into a unique category where the normal rules and procedures did not apply.

Scheck, in great detail, explained that in a typical case a criminalist would "want to arrive at a homicide scene before the coroners [because] you want an opportunity to examine the scene and the evidence at the scene before the bodies are removed" and because it is important "to document the scene in its original condition" as thoroughly as possible. This did not occur at the Bundy Drive scene, where coroners were already at the scene moving the bodies when the crime scene investigators arrived. Scheck pointed out it would have been a "good idea to get some back-up to get another team to Bundy." 146

^{139.} Id.

^{140.} Id.

^{141.} *Id*.

^{142.} *Id*.

^{143.} Id.

^{144.} Id.

^{145.} Id.

^{146.} Id.

Scheck did not relent in proving his point: "Isn't it just basic fundamental principle that when the evidence is close to the bodies, that it's better for the criminalist to collect it, photograph it, document it, before you remove the bodies?¹⁴⁷" Was Fung not concerned the body would be moved through the evidence?¹⁴⁸

Scheck also suggested the integrity of the crime scene had been compromised and items had been moved during the many hours investigators were combing the scene. He used photographs taken shortly after Riske arrived and photographs and video taken hours later to show that evidence had been moved and then placed back into areas to look as if it had not been moved. Scheck asked, "[i]sn't it your responsibility to investigate whether evidence at the crime scene has been moved or altered from its original position? Fung responded that he did not ask the investigating officers if items at the scene had been moved. Interestingly, Fung placed a question mark on his own crime scene checklist report next to the question: "has the scene been altered, [and] if so, by whom and how?

Scheck also used video taken by various media outlets at the scene to prove his point that the crime scene had been improperly preserved.¹⁵⁴ Fung was on video using his bare hands to touch the envelope found near Ron Goldman's body.¹⁵⁵

iii. The Crime Scene Was Contaminated

The outside walkway area at Bundy where the bodies were discovered and most of the evidence collected was in a relatively small and enclosed area. Scheck's main argument in cross-examination was that this entire crime scene had been

^{147.} Id.

^{148.} *Id*.

^{149.} *Id*.

^{150.} CNN O.J. Simpson Trial News: April Transcripts, CNN (1995), http://www.cnn.com/US/OJ/trial/apr/0411OJTR.ZIP [hereinafter Apr. 11 Transcript] (Apr. 11, 1995 trial transcripts).

^{151.} Id.

^{152.} Id.

^{153.} Id.

^{154.} *Id*.

^{155.} Id.

^{156.} Douglas O. Linder, *The Trial of Orenthal James Simpson: An Account*, FAMOUS TRIALS, http://famous-trials.com/simpson/1862-home (last visited Feb. 16, 2018).

contaminated because a blanket from inside Nicole Brown Simpson's home had been thrown over her body before the criminalists arrived.¹⁵⁷

Criminalists would have, most likely, found significant trace evidence—microscopic or small items of physical evidence—such as: hairs, fibers, and glass fragments, at the scene. 158 Scheck contended the blanket thrown over Nicole's body was a source of secondary transfer of trace evidence from outside the crime scene. 159 In a secondary transfer situation, trace evidence could get on a piece of clothing, a towel, a blanket, or some other material, be transferred to another location and fall onto another object of evidence. 160 For example, if O.J. Simpson had previously been at Nicole's home, which he had, and some of his hair had landed on the blanket used to cover Nicole's body at the crime scene that blanket could be a source of contamination. 161 As Scheck described, "it's a terrible mistake particularly when bodies are being removed and they're being dragged into the same area where that blanket was." 162 And "[a]ssuming Detective Lange came in contact with the blanket, ... his clothing [could] be a source of secondary transfer from the blanket to Mr. Goldman's clothing."163

Scheck also alleged the blood stains were not properly preserved since they had been degraded because the blood stains were placed in plastic bags rather than paper bags and were left inside the LAPD crime scene truck for seven hours in the heat.¹⁶⁴ While the truck had a refrigerator in the back, the battery was not working properly.¹⁶⁵

Scheck had done his research and referred to a book entitled *Criminalistics: An Introduction to Forensic Science* by Richard Saferstein and the book *Introduction to Criminalistics: The*

^{157.} Apr. 5 Transcript, supra note 82.

^{158.} Id.

^{159.} Id.

^{160.} *Id*.

^{161.} Id.

^{162.} *Id*.

^{163.} *Id*.

^{164.} CNN O.J. Simpson Trial News: April Transcripts, CNN 0001, 0006, 0008–09, 0011 (1995), http://www.cnn.com/US/OJ/trial/apr/0412OJTR.ZIP [hereinafter Apr. 12 Transcript] (Apr. 12, 1995 trial transcripts).

^{165.} Id.

Foundation of Forensic Science by Barry Fisher to suggest that placing blood evidence in a plastic or airtight container is improper. ¹⁶⁶ "It is certainty that wet or damp blood stains packaged in air-tight containers such as plastic bags will be useless as evidence in a matter of days." ¹⁶⁷ Rather, each stain should be packaged individually in a paper bag. ¹⁶⁸ Fung admitted he had been taught to put the stains in plastic bags ¹⁶⁹ although wet bloodstains begin to degrade immediately by bacterial contamination. ¹⁷⁰

Fung's method of collecting the blood stains also contributed to the blood stains' "contamination." Scheck reminded Fung that he did not change gloves between the collections of each sample. Fung also admitted he had never received a written handout on how to properly collect and preserve body fluids, including blood (though he had received instructions orally). Nor could Fung recall the section in the LAPD manual about preserving wet stains. Fung had no records to show how many swatches there were for each blood drop to admitted he could not differentiate the Rockingham blood swatches from the Bundy swatches by looking at the swatches, suggesting cross-contamination.

Scheck criticized Fung's method of using one pair of tweezers to collect all the blood samples and wiping the tweezers each time with distilled water. Rather than simply suggesting Fung should have used disposable tweezers for each collection, Scheck asked, Now if you were with somebody that had a deadly virus, a serious virus, and they just ate something with a spoon and then you just wipe that spoon with a chem-wipe of distilled water, would you be reluctant then to use that spoon to eat?

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166. Id.; Apr. 11 Transcript, supra note 150.
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^{167.} Apr. 12 Transcript, supra note 164.

^{168.} *Id*.

^{169.} Apr. 11 Transcript, supra note 150.

^{170.} Id.

^{171.} Id.

^{172.} Id.

^{173.} *Id*.

^{174.} Id.

^{175.} *Id*.

^{176.} *Id*.

^{177.} Id.

^{178.} Id.

iv. LAPD's Protocol Was Not Followed

Scheck repeatedly referred to the LAPD manual and health and safety code provisions to argue Fung failed to follow LAPD protocol and typical guidelines discussed in traditional criminalist textbooks by well-known experts like Saferstein and Fisher.¹⁷⁹ Fung refused to admit either that he had read relevant sections of the LAPD manual, or was aware of an eleven-volume document entitled "The Crime Scene Field Unit Protocol and Procedures Manual" which was supposed to be kept in the crime scene truck.¹⁸⁰

Fung was not even aware a field procedures manual was stationed in the evidence processing room for purposes of referencing established protocols and procedures for the crime laboratory. Fung stated, "I have not reviewed the entire manual... [the protocols are communicated through a SID Academy;] much of it is oral and through experience, on the job training." Despite Judge Ito's ruling that Scheck could not cross-examine Fung on something he had not referred to in forming his opinions about the case, Scheck wove the LAPD manual and relevant protocols and collection procedures into his cross-examination questions. ¹⁸³

v. Fung Made Prior Inconsistent Statements

Scheck frequently attempted to impeach Fung using contradictory statements (or omissions) Fung made at a prior court hearing in June 1994, to the grand jurors when seeking an indictment, and at the preliminary hearing.¹⁸⁴ For example, Fung once testified that criminalist Mazzola was still in training because she had only participated in around five crime scenes prior to the Bundy crime scene; however, on direct examination at trial, Fung seemed to suggest Mazzola was a competent criminalist capable of collecting evidence on her own.¹⁸⁵ Fung was impeached using the statement he made at the preliminary hearing that Mazzola was at

^{179.} *Id*.

^{180.} Apr. 5 Transcript, supra note 82.

^{181.} Id.

^{182.} Id.

^{183.} Id.

^{184.} Id.

^{185.} Apr. 3 Transcript, supra note 111.

Bundy with him "to learn how to process crime scenes," and his objective was to show her how it's done. Scheck argued this conveyed the impression that "she was just there as an observer" and not as the primary evidence collector at the scene. 187

In fact, Mazzola swatched nearly all of the bloodstains at Bundy, and she collected the glove and the watch cap and placed it into the bag.¹⁸⁸ Yet Fung did not tell grand jurors criminalist Mazzola participated in swatching the blood drops at Bundy.¹⁸⁹ Scheck suggested Fung failed to mention this because he was worried a trainee, such as Mazzola, collected crucial evidence.¹⁹⁰

E. The O.J. Simpson Trial Post-1995 Acquittal

It is unclear whether there would have been a different outcome if the O.J. Simpson criminal trial had occurred in 2017 rather than 1995. DNA analysis and other evidence collection and processing methods have certainly improved since 1995. 191 However, thorough cross-examination Scheck's of corroborated Cochran's argument that the crime scene had been "contaminated, compromised, and corrupted," 192 argument undoubtedly made a lasting impression on jurors. Through rigorous questioning, the O.J. defense team made the investigation at Bundy Drive look like the poster child for what should not be done at a crime scene. Scheck had the benefit of having the evidence collection process at the crime scene videotaped by various media outlets, something most defense attorneys do not have while preparing their cross-examination.¹⁹³ The cross-examination put doubts in the jurors' minds, implanting the idea the evidence was tainted because the police had not adequately secured the scene and the criminalists lacked the

^{186.} Apr. 4 Transcript, supra note 129.

^{187.} Id.

^{188.} Id.

^{189.} Id.

^{190.} Id.

^{191.} See NAT'L RESEARCH COUNCIL, supra note 1, at 99; see also Sarah Sloat, How the O.J. Simpson Trial Created 347 DNA Labs and Public Love for Crime Tech, INVERSE (Mar. 24, 2016), https://www.inverse.com/article/13129-how-the-o-j-simpson-trial-created-347-dna-labs-and-public-love-for-crime-tech.

^{192.} Jan. 30 Transcripts, supra note 6.

^{193.} See, e.g., Apr. 4 Transcript, supra note 129.

necessary training to appropriately collect trace evidence, and handle, label, and effectively transport items of evidentiary value.

Post-trial, the LAPD significantly changed its SID unit. The SID received more funding for additional personnel. 194 Criminalists had to take much more detailed notes at the scene so as not to leave things to memory. 195 The SID laboratory began to use barcodes to scan and track evidence, and the crime scene itself became more tightly controlled. 196 A crime scene manager now oversees a criminalist team and coordinates with investigating officers. 197 Officers can no longer re-enter crime scenes with evidence taken from other scenes. 198 Trainees can no longer participate in evidence collection but can only observe the work done by two fully trained criminalists. 199

With the increasing use of forensic science in criminal proceedings, defense counsel has sought to undermine the value of any damning evidence by attacking and discrediting the criminalists, but not the science they use, by exposing procedural errors made at the crime scene or during collection of evidence. As the O.J. Simpson case shows, this can be a sound strategy for a defense team to use at trial. However, the O.J. case is an exceptional example due to the amount of witnesses and evidence presented, and the length of the trial itself. Moreover, the O.J. "dream team" had an advantage other defense attorneys did not, i.e., the media recording practically every movement the criminalists and detectives made at the crime scene.

Another exceptional case where crime scene investigation techniques were heavily explored was the Amanda Knox case. In November 2007, Amanda Knox was arrested in Perugia, Italy, and charged with murder.²⁰¹ Amanda Knox, an American student taking classes in Italy, was accused of murdering her roommate,

¹⁹⁴ O.J. Simpson Case Taught Police What Not to Do at a Crime Scene, supra note 76.

^{195.} Id.

^{196.} Id.

^{197.} Id.

^{198.} Id.

^{199.} Id.

^{200.} CNN O.J. Simpson Trial News: January Transcripts, CNN (1995), http://www.cnn.com/US/OJ/trial/jan/0125OJTR.ZIP (Jan. 25, 1995 Trial Transcripts, Part 5).

^{201.} See Barbie Latza Nadeau, Amanda Knox Decision Explained by Italian Court, CNN (Sept. 8, 2015, 8:23 PM), http://www.cnn.com/2015/09/08/europe/italy-court-amanda-knox/index.html.

Meredith Kercher, who was found stabbed to death in her bedroom.²⁰² In 2015, after multiple appeals and guilty verdicts, Amanda Knox was exonerated after a myriad of mistakes committed at the crime scene came to light.²⁰³ The crime scene had not been properly secured and, as a result, was contaminated when: the investigators wore no protective equipment while at the scene, the investigators used plastic bags to collect blood evidence, the temperature of the body was not taken until the day after its discovery, and some evidence was moved across the room and laid in a pile of debris where it remained until six weeks after the murder.²⁰⁴ Many of the procedural issues raised during the Amanda Knox trial sound eerily familiar to those made by the defense during the O.J. Simpson trial.

As of today, more evidence is being collected at crime scenes and more experts are giving opinions to connect the evidence found at the scene to the defendant. Defense attorneys typically rebut these opinions by arguing the police work at the crime scene was sloppy or the police framed the defendant by placing the evidence at the scene.

The advancement, improvement, and evolution of forensic science as it applies to criminal investigations will continue unabated. However, besides watching *Forensic Files* or fictional shows such as *CSI: Crime Scene Investigation*, few trial attorneys are familiar with how to prepare, defend, or attack the testimonies of criminalists who collect and process evidence at the crime scene.

IV. THE FUTURE OF CRIME SCENE COLLECTION AND PROCESSING

Securing and collecting evidence from a crime scene are essential elements to solving any crime.²⁰⁵ However, modern evidentiary collection techniques and forensic science are still relatively new.²⁰⁶ The O.J. Simpson case notwithstanding, evidence

^{202.} Id.

^{203.} Id.

^{204.} Dena Weiss, Veteran Forensic Scientist Examines Negligence in the Collection of Evidence Against Amanda Knox, Pub. Safety (Feb. 5, 2014), https://inpublicsafety.com/2014/02/veteran-forensic-scientist-examines-negligence-in-the-collection-of-evidence-against-amanda-knox/.

^{205.} NAT'L RESEARCH COUNCIL, supra note 1, at 56.

^{206.} Id. at 40.

collection procedures are given short shrift at most criminal trials and the protocols and procedures CSIs follow vary significantly.²⁰⁷ A uniform, across-the-board protocol as to standard methods used to collect evidence should be the norm, and adequate training should indoctrinate that protocol. At the trial level, testimony regarding what occurred at the crime scene should be thoroughly reviewed by both the prosecution and defense.

A. The Need for Uniformity in Terms, Protocols, and Training

The law enforcement personnel who collect and process evidence at crime scenes come in all shapes and sizes and go by many names. These individuals have been described as crime scene technicians, CSIs, evidence technicians, or criminalists.²⁰⁸ Those labeled a crime scene investigator are usually sworn police officers, while those in the category of crime scene or evidence technicians are usually civilians with expertise in collecting and processing evidence.²⁰⁹ There is no standard certification for becoming a CSI, and the training varies by department or agency.²¹⁰

Some small police departments cannot afford their own forensic science unit. Those departments have the investigating officer or detective collect the evidence, including blood stains, fingerprints, and shoeprint impressions, and send it all to a state crime lab or the FBI lab in Quantico, Virginia for analysis.²¹¹ Other police departments have their own crime scene technicians who also perform their own analysis.²¹² These technicians usually have an undergraduate background in chemistry, biology, forensic science, or crime scene investigation, and—depending on the state—must pass a certification exam to perform those tasks.²¹³ The term "criminalist" is most common in California and describes a person who "applies scientific methods and techniques

^{207.} *Id.* at 56–57.

^{208.} Id. at 56.

^{209.} Id. at 36.

^{210.} Id. at 56-57.

^{211.} Id. at 36.

^{212.} Id.

^{213.} What Is a Crime Scene Technician, WISEGEEK, http://www.wisegeek.com/what-is-a-crime-scene-technician.htm (last visited Feb. 10, 2018).

to examine and analyze evidentiary items and testifies in court as to his or her findings."²¹⁴

In addition to the job title, the protocols used by CSIs vary across the country. For example, in Kentucky, the Kentucky State Police's investigative unit created their protocols which are taught at the police academy. 215 However, each municipality crafts its own protocols for their CSIs to follow.²¹⁶ The Tennessee Bureau of Investigation ("TBI") creates its own protocols and each county sheriff's office and city police department in Tennessee has its own procedures that may or may not deviate from the TBI's guidelines.²¹⁷ Police departments with limited resources will likely have the least stringent requirements for evidence collection because they lack the resources necessary to implement stricter protocols and to purchase specialized equipment. 218 Alternatively, some agencies purposely craft a vague set of protocols to give their CSIs wide discretion at the scene and, consequently, avoid providing additional fodder for defense attorneys at trial who might try to use specific protocols against CSIs that did not follow them in a particular case.²¹⁹

Even at the federal level, there is no standard method federal agents are taught to manage a crime scene and collect and preserve potential evidence. Federal agents receive training, but it is not uniform; some agents may observe how other agencies collect evidence and use those ideas for their own crime scene investigations.²²⁰ The FBI has one team dedicated to collecting evidence, but that team comprises both Special Agents and

^{214.} Criminalistics Information, CAL. ASS'N CRIMINALISTS, http://www.cacnews.org/membership/criminalistics.shtml (last visited Feb. 10, 2018).

^{215.} Academy, KY. ST. POLICE, http://www.kentuckystatepolice.org/academy.html (last visited Feb. 7, 2018).

^{216.} NAT'L RESEARCH COUNCIL, *supra* note 1, at 56–57.

^{217.} See How to Become a Deputy Sheriff in Tennessee, LAWENFORCEMENTEDU.NET, https://www.lawenforcementedu.net/tennessee/how-to-become-a-deputy-sheriff-intennessee/ (last visited Feb. 8, 2018).

^{218.} NAT'L RES. COUNCIL, supra note 1, at 36.

^{219.} *CSI: Scene Documentation*, UNIVERSAL CLASS, https://www.universalclass.com/articles/law/csi-scene-documentation.htm (last visited Feb. 10, 2018).

^{220.} Crime Scene Investigators Training Program, FED. L. ENFORCEMENT TRAINING CTRS., https://www.fletc.gov/training-program/crime-scene-investigators-training-program-0 (last visited Feb. 7, 2018).

support staff and is used selectively, i.e., not called into service for every search or crime scene.²²¹

Without a uniform protocol to follow, CSI training also varies by department and agency. At the local level, police officers are taught certain evidence gathering procedures at the police academy, but such teaching is usually limited to keeping a chain of custody log. 222 Again, each department will create its own training with its own set of priorities.²²³ Changes to officer training often occur because of ineptness or misconduct in the field.²²⁴ If officers are caught carrying evidence in their patrol cars, keeping it overnight before logging it in, or dropping it off at dispatch where it could be easily removed or tampered with, then new policies or training may be implemented.²²⁵ Perhaps, local departments will simply add another provision to their existing protocols or add a warning statement within the regulations. Supplemental training offered by state authorities is meant to alleviate some of the inexperience or problems in the smaller police departments.²²⁶ However, the training usually centers on the need to write better warrants and how to develop probable cause rather than basic or advanced courses on evidence collection.²²⁷

It is uncommon for every local, state, or federal law enforcement agency to have identical CSI protocols.²²⁸ Fortunately for defense attorneys, most police department's CSI protocols are in the public record.²²⁹ This provides the defense attorney an

^{221.} FBI Laboratory Positions, FED. BUREAU OF INVESTIGATION, https://www.fbi.gov/services/laboratory/laboratory-positions (last visited Feb. 7, 2018).

^{222.} NAT'L RESEARCH COUNCIL, *supra* note 1, at 182; *see* NAT'L FORENSIC SCI. TECH. CTR., *supra* note 68, at 3, 10.

^{223.} NAT'L RESEARCH COUNCIL, *supra* note 1, at 182.

^{224.} Jeshayah Refuge, *Ethics and Training in Forensic Science*, CRIME SCENE INVESTIGATOR NETWORK (June 24, 2011), http://www.crime-scene-investigator.net/ethicsinforensicscience.html.

^{225.} Id.

^{226.} U.S. Dep't of Homeland Sec., *Strategic Plan, Fiscal Year 2016–2018*, FED. L. ENFORCEMENT TRAINING CTRS. 6–7, https://www.fletc.gov/sites/default/files/FLETC%20 Strategic%20Plan%20FY%202016-2018%20FINAL%20508.pdf (last visited Feb. 20, 2018).

^{227.} Course Descriptions, CTY. MORRIS, NJ PUB. SAFETY ACAD., https://academy.morriscountynj.gov/police/course-descriptions/ (last visited Feb. 20, 2018).

^{228.} Jordan Michael Smith, FORGET CSI: A Disaster Is Happening in America's Crime Labs, BUS. INSIDER (Apr. 30, 2014, 1:00 PM), http://www.businessinsider.com/forensic-csi-crime-labs-disaster-2014-4.

^{229.} Samuel A. Terilli & Sigman L. Splical, Public Access to Autopsy and Death-Scene Photographs: Relational Privacy, Public Records and Avoidable Collisions, 10 COMM. L. & POL'Y 313, 327 (2005).

opportunity to determine if the CSIs' actual performance at a crime scene remains faithful to established regulations. When there is a discrepancy, the defense team can use it to discredit the prosecution. Uniformity becomes complicated when multiple police agencies are involved in the investigation. It can be difficult to determine who did what, when and where, and which agency a particular CSI represented, as opposed to the other evidence collectors at the crime scene from other departments and agencies. Did every CSI follow their own department's regulations, and how did those regulations differ from those of the other participating agencies?

While many agencies have programs in crime scene processing, the level of training and resources available varies from jurisdiction to jurisdiction.²³⁰ Most departments rely upon on-the-job learning.²³¹ Basic techniques are taught in criminal justice classes throughout the United States that serve as common ground but even these techniques may vary depending on the instructor and the instructor's training. 232 Fundamental textbooks, such as those referenced by Scheck during the O.J. Simpson trial, also serve as common ground. Additionally, the National Institute of Justice, a subcomponent of the U.S. Department of Justice's Office of Justice Programs, provides law enforcement with basic guidelines regarding crime scene investigations.²³³ A National Forensic Academy ("NFA") was created in 2001 to train professionals in proper methodologies of crime management.²³⁴ Various CSIs from across the country compete to attend a ten-week course offered by the NFA.²³⁵ But this is the exception rather than the rule.

Organizations such as the International Association for Identification ("IAI") holds educational conferences, publishes the Journal of Forensic Identification, and stresses uniform methods

^{230.} Smith, supra note 228.

^{231.} Id.

^{232.} What Topics Are Covered in College Criminal Justice Classes?, LEARN.ORG, https://learn.org/articles/What_Topics_are_Covered_in_College_Criminal_Justice_Class es.html (last visited Feb. 20, 2018).

^{233.} Office of Justice Programs, U.S. Dep't of Justice, Crime Scene INVESTIGATION: A GUIDE FOR LAW ENFORCEMENT 1 (Jan. 2000), https://archives.fbi.gov/a rchives/about-us/lab/forensic-science-communications/fsc/april2000/twgcsi.pdf.

^{234.} About the Law Enforcement Innovation Center (LEIC), LAW ENFORCEMENT INNOVATION CTR., http://leic.tennessee.edu/aboutus (last visited Feb. 20, 2018).

^{235.} Id.

regarding crime scene collection and processing.²³⁶ There are universal rules common among all CSIs, such as requiring gloves, eye protection, and booties to be worn on the scene at all times.²³⁷ Contrary to Dennis Fung's methodology at Bundy, a new set of tweezers should always be used to collect each item thought to contain blood or DNA.²³⁸

However, crafting crime scene evidence collection protocols is more complicated than setting forth the reliable methods and tools used at the lab to analyze such evidence. This is because each crime scene is unique, and therefore, how a CSI approaches the scene will differ each time.²³⁹ The method of collection may change depending upon a variety of factors, such as the weather, the media presence at the scene, the time of day, the officer's concern for public safety at the scene, the crowd's location, whether the scene is outside or inside, and even the nature of the crime.²⁴⁰

For example, a CSI might approach a suspected burglary committed outside at night differently from an indoor homicide where there are several media outlets surrounding the perimeter. A CSI might take photographs and dust some items for prints at the burglary, but spend much more time at the homicide collecting blood evidence and methodically going through each room photographing and collecting items of interest. A CSI called in to an officer-involved shooting where several body cameras recorded what happened might not collect all the surrounding debris that a CSI might collect at a club shooting where the shooter is still at large. Oftentimes, CSIs must use their prior experiences and common sense to determine what to collect and what to leave behind.

Lastly, CSIs will vary in their collection and preservation methods based on how their particular crime lab wants the evidence to be processed and, quite simply, what their agency or department can afford. While uniformity is important so that all

 $^{236.\ \} Int'l Ass'n for Identification, https://www.theiai.org/index.php (last visited Feb. 20, 2018).$

^{237.} Dick Warrington, *Crime Scene Safety*, FORENSIC MAG. (Feb. 1, 2009, 3:00 AM), https://www.forensicmag.com/article/2009/02/crime-scene-safety.

^{238.} Julia Layton, *How Crime Scene Investigation Works*, HOWSTUFFWORKS, https://science.howstuffworks.com/csi4.htm (last visited Feb. 20, 2018).

^{239.} Id.

^{240.} Id.

CSIs are adequately trained and competent to handle any crime scene, crime scene protocols change and evolve as better methods of collection and preservation are identified. Whether a CSI uses magnetic powder or black powder to lift prints is inconsequential. Whether a CSI removes a large piece of bloody carpet from the crime scene or swabs the carpet for blood or DNA is a judgment call. The focus should be on putting in place universally accepted absolutes and suggested protocols that will serve as a reminder to every CSI, regardless of the agency or department, what they should consider and utilize each and every time they set foot on a crime scene.

B. The Need to Improve the Discovery Process for Crime Scene Irregularities

i. The Current Procedures at Trial

No matter how hard the prosecutor works to accurately recreate the crime scene at trial, the prosecutor must rely on the CSI's perspective to precisely represent what occurred.²⁴¹ The photographs taken at the scene must tell a story and properly document interior and exterior scenes with possibly complex lighting issues. The CSI should provide quality digital images for comparative analysis for fingerprints, bloodstain, tool marks, and impression evidence. Diagrams drawn at the scene must be accurate and to scale. The items collected at the scene by CSIs hopefully speak for themselves.

At most trials, CSIs are either called briefly to explain where they found a particular piece of evidence, whether that evidence appears to be in substantially the same condition as when they last saw it, whether the photographs taken are a fair and accurate representation of the crime scene, or else are not called to testify at all.²⁴² Oftentimes, prosecutors are confused on when to list the CSI as an "expert witness." If the CSI testifies about additional forensic examinations performed on evidence after it

^{241.} Crime Scene Investigations and Gathering Evidence, CHRISTOPHER BROWN COUNS. L., https://www.christopherbrownlaw.com/blog/crime-scene-investigations-gathering-evidence/ (last visited Feb. 20, 2018).

^{242.} Doris Wells, *Testifying in Court As a Forensic Expert*, CRIME SCENE INVESTIGATOR NETWORK (Mar. 2012), http://www.crime-scene-investigator.net/testifying-in-court-as-a-forensic-expert.html.

was collected, or if the method of collection requires specialized knowledge, then the CSI may be qualified as an expert.

The CSI rarely gets an opportunity to express his or her opinions on the case with the prosecutor prior to direct examination, especially at the state level. And y prosecutors view the CSI testimony as straightforward and do not see pre-trial consultation as essential. However, a prosecutor would benefit from a brief, even five-minute, discussion with the CSI prior to trial on topics such as: the importance of the evidence found, why particular photographs were taken at a crime scene, or the potential weaknesses in the evidence-collection process at the scene.

Similarly, CSIs are accustomed to receiving a few "sloppy police work" questions from the defense during cross-examination, but most defense attorneys rarely take the time to review the department's protocols and compare them to the actual work done on the particular case.²⁴⁴ Most defense cross-examinations usually include an attack on the CSI's qualifications and the quality of their work conducted at the scene.²⁴⁵ The defense team may introduce myths which debunk the validity or value of forensic science, and they may question the nature of the CSI's relationship with the prosecution.²⁴⁶ They may also attempt to undermine the CSI's overall findings if the CSI later analyzed the evidence and made conclusions.²⁴⁷

Often, the CSI is bypassed entirely at trial, and the lead detective is called to introduce the crime scene photographs and the evidence collected.²⁴⁸ A detective might even be used to introduce a computer sketch or map or diagram drawn or designed by a CSI, but authenticated by a detective willing to attest

^{243.} Id.

^{244.} See generally NAT'L INST. OF JUSTICE, DNA FOR THE DEFENSE BAR 97 (June 2012), https://www.ncjrs.gov/pdffiles1/nij/237975.pdf.

^{245.} Id. at 95.

^{246.} See Craig M. Cooley, Reforming the Forensic Science Community to Avert the Ultimate Injustice, 15 STAN, L. & POLY REV. 381, 408 (2004).

^{247.} See Emanuella Grinberg, Flawed Forensic Evidence Explains Casey Anthony Acquittal, Experts Say, CNN (July 18, 2011, 3:10 PM), http://www.cnn.com/2011/CRIME/07/15/casey.anthony.forensic.evidence/index.html.

^{248.} TruNarc Strengthens Chain of Custody, THERMOSCIENTIFIC (2017), https://assets.thermofisher.com/TFS-Assets/CAD/Application-Notes/White-paper-TruNarc-strengthens-chain-of-custody.pdf.

to its accuracy.²⁴⁹ A witness chosen to authenticate an item at trial need only assure the jury that the evidence the prosecutor wishes to introduce is genuine and actually is what the party claims it to be. 250 A CSI might retrieve the murder weapon from the crime scene or collect blood samples from a wall at the scene, but an agent may later testify to such evidence because she was part of the process of tagging and marking the evidence found at the scene. Marking one's initials on an evidence bag will allow a witness who was never at the crime scene to later testify to the distinctness of the evidence, due solely to their initials being on the bag.²⁵¹ Alternatively, the case agent may simply review the evidence recovery log and chain of custody forms to familiarize himself with where the evidence was found and testify as such.²⁵² Everyone in law enforcement who has had contact with a piece of evidence need not testify, as "[f]ailure to establish each and every link in the chain of custody does not render the exhibit inadmissible" as "the thoroughness and completeness of the record on chain of custody goes to the weight, not the admissibility of real evidence."253 Thus, authentication requirements at trial are low, and the CSI may never testify.²⁵⁴

^{249.} See id.

^{250.} FED. R. EVID. 901(a) ("To satisfy the requirement of authenticating or identifying an item of evidence, the proponent must produce evidence sufficient to support a finding that the item is what the proponent claims it is.").

^{251.} FED. R. EVID. 901(b)(4) (regarding distinctive characteristics).

^{252.} FED. R. EVID. 901(b)(1) (regarding testimony of a witness with knowledge that evidence is what is claimed).

^{253.} ROBERT E. LARSEN, NAVIGATING THE FEDERAL TRIAL § 8:18 (2017 ed.) When the defense team attempts to discredit or invalidate evidence based on a chain of custody issue, the prosecutor will counter by arguing the defense's objection goes to weight and not admissibility of the evidence; that is, the defense is arguing something that might in fact lower the importance (the "weight") a piece of evidence has in the minds of the jury, but does not in fact affect the admissibility of the piece of evidence. *Id.* The prosecutor's argument (that chain of custody goes to weight and not admissibility) is based on the premise that this question should be resolved by the jury, and not the judge. *Id.*

^{254.} EDWARD J. IMWINKELRIED ET AL., COURTROOM CRIMINAL EVIDENCE § 505 (6th ed. 2016) ("There is no rule requiring the prosecution to produce as witnesses all persons who were in a position to come into contact with the article sought to be introduced in evidence. . . . the fact of a missing link does not prevent the admission of real evidence, so long as there is sufficient proof that the evidence is what it purports to be."); Blake Tartt & Jeffrey S. Wolff, *Article IX: Authentication and Identification*, 30 Hous. L. Rev. 1029, 1036 (1993) ("[There is a] relaxed standard regarding the quality and quantity of extrinsic proof needed to authenticate an item. . . . courts have said as long as there is a 'reasonable probability' that the document is what it purports to be, the question of its authenticity is one for the jury.").

Once the evidence has been authenticated and admitted into evidence, defense counsel may contest its validity.²⁵⁵ However, these relaxed evidentiary procedures regarding authentication may prevent the defense from digging deeper into potential chain of custody issues as well as the method of collection; the defense cannot question whether appropriate processing protocols were used, or why the CSI recovered evidence the way he or she did if the CSI never takes the stand.²⁵⁶ While the defense may subpoena the CSI and ask him/her questions during the defense's case, the defense will rarely choose this option if counsel is unaware if there were any irregularities or improper protocols used during the collection process.²⁵⁷

As discussed, it may be necessary to call a CSI to testify only if a special process was used at the scene, such as in blood collection or in creating tire or track impression prints or dusting and lifting fingerprints if defense counsel challenges the proper collection at the scene.²⁵⁸ If any tests were performed on the evidence after it was collected, the CSI would be called to testify about that examination, such as with a shooting reconstruction or bloodstain pattern or latent print analysis.²⁵⁹ In such cases, the CSI would be an expert witness—a person who by education, training, skill, or experience, is believed to possess the expertise and/or specialized knowledge on a particular subject outside the scope of the average person's experience or understanding.²⁶⁰

ii. Recommended Pre-Trial and Courtroom Procedures

Rather than limit a CSI's time on the witness stand, the prosecutor should ensure CSIs who collect evidence are prepared to expound on every aspect of their work at the crime scene and be competent to defend their actions based on their agency's specific protocols.

^{255.} TruNarc Strengthens Chain of Custody, supra note 248.

^{256.} See Doris Wells, In Brief: Law 101: Legal Guide for the Forensic Expert, 269 NAT'L INST. JUST. J. 24, 24–25 (Mar. 2012), https://www.ncjrs.gov/pdffiles1/nij/237726.pdf.

^{257.} See id.

^{258.} See id.

 $^{259. \}quad \textit{See id.}$

^{260.} FED. R. EVID. 702.

Prosecutors should be required—as part of the discovery process—to ask those on the crime scene team whether any local policies or protocols were not followed. Rule 16(a)(1)(A)-(G) of the Federal Rules of Criminal Procedure requires prosecutors to disclose statements of the defendant, physical evidence intended for use at trial or "material" to the defense, the defendant's criminal record, and any scientific tests or examinations and expert testimony that will be presented at trial.²⁶¹ The prosecutor must also turn over any material or exculpatory evidence to the defendant.262 Failure to disclose such evidence violates the Due Process Clause and is grounds for a new trial if the defendant can prove that the evidence was exculpatory, or could be used for impeachment at trial, and prejudice resulted. 263 Any irregularity or deviation from standard protocol at the crime scene should be considered exculpatory information and disclosed to the defense so defense counsel might consider whether to use this information to undermine the validity, reliability, or genuineness of crime scene evidence presented at trial.

As it stands, prosecutors rarely ask these questions and many case agents or lead detectives may not know the answer to these questions if they were not present at the scene or in the room when the evidence was collected. If the prosecutor and case agent are not aware of what happened at the scene, it would seem highly unlikely such information would later be considered exculpatory material and disclosed to defense counsel during the discovery process. Therefore, the constitutional rules and case law regarding discovery are not an effective mechanism to serve as a check. The defense team will never learn of any crime scene irregularities when the prosecution team is also unaware and likewise unclear as to whether asking such questions might result in information that would qualify as *Brady* material.²⁶⁴

Rather, Rule 16 and local discovery rules could easily be amended to require such information be disclosed. Such a

^{261.} FED. R. CRIM. P. 16(a)(1).

^{262.} FED. R. CRIM. P. 16(a)(1)(A)-(G); see also Brady v. Maryland, 373 U.S. 83, 87 (1963).

^{263.} United States v. Bagley, 473 U.S. 667, 681–82 (1985) (noting a reasonable probability is "a probability sufficient to undermine confidence in the outcome" (quoting Strickland v. Washington, 466 U.S. 668, 694 (1984))).

^{264.} Jennifer Blasser et al., New Perspectives on Brady and Other Disclosure Obligations: Report of the Working Groups on Best Practices, 31 CARDOZO L. REV. 1961, 1984–85 (2010).

requirement could also be included in a court's standing discovery order. For example, Rule 16(a)(1)(E) might be amended to state:

- (E) Documents and Objects. Upon a defendant's request, the government must permit the defendant to inspect and to copy or photograph books, papers, documents, data, photographs, tangible objects, buildings or places, or copies or portions of any of these items, if the item is within the government's possession, custody, or control and:
 - (i) the item is material to preparing the defense;
 - (ii) the government intends to use the item in its case-in-chief at trial; or
 - (iii) the item was obtained from or belongs to the defendant.

Furthermore, any deviations from standard, local protocol as to the collection and preservation of any item in sections (i)-(iii) must also be disclosed to the defense.²⁶⁵

Prosecutors could simply certify in their discovery responses that upon review with the crime scene team, all local protocols were followed. Just as the NAS recommended "the widespread adoption of uniform and enforceable best practices" in crime laboratories and in the overall forensic science community, ²⁶⁶ requiring prosecutors to ask questions about local protocols and deviations from those protocols might cause law enforcement agencies and police departments to think about their established protocols and whether they should adopt "uniform and enforceable best practices." ²⁶⁷

The NIJ's *Crime Scene Investigation: A Guide for Law Enforcement* serves as a good start for best practices, and organizes crime scene investigation into various steps and tasks: arriving at

^{265.} FED. R. CRIM. P. 16(a)(1)(E) (including the author's additional proposed sentence in italicized font).

^{266.} NAT'L RESEARCH COUNCIL, supra note 1, at 15.

^{267.} Id.

the scene and how to prioritize efforts; identifying, establishing, protecting, and securing the scene; preliminary documentation and evaluation of the scene; how to process the scene; prioritizing the collection of evidence; collecting, preserving, inventorying, packaging, transporting, and submitting evidence; and how to complete and record the crime scene investigation and establishing a crime scene debriefing team.²⁶⁸ While the NIJ's guide is general and only summarizes what should be done, Fisher's *Techniques of Crime Scene Investigation* provides detailed information on the collection and preservation of physical evidence and how to properly process the crime scene.²⁶⁹ These reference guides and other respected manuals in the forensic science community should be considered when creating uniform and enforceable protocols at the local level.²⁷⁰

If prosecutors disclosed deviations from local crime scene procedures prior to trial, defense attorneys could consider the information's potential impact on the jury prior to trial. This might obviate a defense counsel's decision to call the CSI to testify in order to learn what occurred at the crime scene. Adding such a requirement to the discovery rules would allow the defense to contest evidence in pretrial motions and avoid any last-minute continuations of trial due to duplicative defense-led investigations as to what occurred at the crime scene. However, this requirement may also lead to an increased tendency by defense counsel to exaggerate and misconstrue crime scene procedures, take information out of context, and suggest that police, on the whole, acted improperly or conspired to contaminate the crime scene.²⁷¹ As Fisher points out:

There are few absolute rules in crime scene investigations. An important concept to note is that most rules outlined in this text and others are

^{268.} OFFICE OF JUSTICE PROGRAMS, U.S. DEP'T OF JUSTICE, supra note 233, at x.

^{269.} Barry A. J. Fisher & David R. Fisher, Techniques of Crime Scene Investigation 8-15, 51-65, 79-99 (8th ed. 2012).

^{270.} Unfortunately, oftentimes, those who write the department or agency's manual are unfamiliar with crime scene collection methods and do not consult with those in the field who understand first-hand the realities of crime scene investigation. While sufficient protocols ought to be put in place, especially to guide new CSIs, enough leeway must be given to address the differences involved in every crime scene.

^{271.} FISHER & FISHER, supra note 269, at 57.

guidelines, based on common sense, that are applied to crime scene investigation. There are always cases in which guidelines cannot be followed. An example is packaging wet, bloody evidence in plastic trash bags. Wet, biological evidence packaged in plastic bags deteriorates more quickly than air-dried evidence and should not be used. However, when faced with a crime scene with blood-soaked clothing or bedding, separate packaging in a clean plastic trash bag for immediate transportation to a crime laboratory is an appropriate way to handle such items if the evidence cannot be dried at the scene. Situations demand that investigators be flexible and creative when necessary.

Because investigators are human beings, it is impossible for them to conduct investigations without making mistakes. It is necessary to try to make as few errors as possible and to learn from past faults. Unfortunately, critics will always have a compelling urge to be "Monday-morning quarterbacks" and advise any who will listen about how something should have been done. An investigator would be wealthy if he could have a dollar for each time he said, "If only I had thought to collect that item of evidence" or "I should have done this a different way" or "Why didn't I think of that at the time? It seems so obvious now." The adage that "hindsight is always 20-20" is a fact of life. 272

By providing additional information to the defense during discovery, a prosecutor may unwittingly add fuel to the defense's "sloppy police work" argument to the jury, but the advantages outweigh the disadvantages. If during the discovery process the prosecutor certified the initial handling of physical evidence was proper, then such certification might minimize the efforts the defense might attempt to prove otherwise during trial. It also

eliminates the need for a defense fishing expedition as to crime scene procedures during trial.

In summary, while each crime scene is different and it may be difficult to create absolute rules on how to process each crime scene, prosecutors and CSIs should discuss how the scene was processed prior to trial. Due to the increased importance of forensic science and evidence collection on the outcome of jury trials, defense attorneys need to know if anything unusual occurred during the collection process. Lastly, CSIs should always be available to testify concerning their collection and processing methods before or after any relevant evidence is admitted at trial.

C. What CSIs Need to Know

CSIs must recognize any weaknesses in their overall crime scene collection techniques for each investigation and be capable of explaining possible mistakes or omissions. Many CSIs experience time pressure at crime scenes because they are possibly the last person called to respond to a crime scene, but are nevertheless asked to process the crime scene in a short amount of time.²⁷³ CSIs are considered part of the prosecution team and are involved in many pre-trial discussions.²⁷⁴ CSIs should have a place at the prosecution table, and should be engaged by prosecutors to discuss their findings and perspectives prior to trial.

After shows such as CSI: Crime Scene Investigation²⁷⁵ and its myriad spin-offs became popular, the unrealistic expectations of juries rose markedly.²⁷⁶ Jurors now expect CSIs to find fingerprints in every nook and cranny and find DNA in the most difficult of crime scenes.²⁷⁷ Due to the effect of these crime shows on jurors, CSIs must now explain why they did not find what jurors imagined they would find.²⁷⁸ This phenomenon will become increasingly

^{273.} See id. at 56.

^{274.} Symposium, Tides Turning in California Criminal Discovery? Proposed Rule 5-110: Special Requirements of a Prosecutor, 44 W. St. U. L. REV. 123, 137 (2017); Conor CSI Is a Lie, ATLANTIC: POL. Friedersdorf, (Apr. 2015), https://www.theatlantic.com/politics/archive/2015/04/csi-is-a-lie/390897.

^{275.} Tamara F. Lawson, Before the Verdict and Beyond the Verdict: The CSI Infection Within Modern Criminal Jury Trials, 41 LOY. U. CHI. L.J. 119, 128 (2009).

^{276.} Id.

^{277.} See id. at 169.

^{278.} Id. at 167-68.

common as new technologies arise and more science fiction writers contribute to such TV shows.

The credibility of CSIs has been undermined by the 2009 National Academy of Sciences' report criticizing forensic science findings. CSIs must understand the basic rules of expert testimony and articulate the foundation for their opinions and draw reasonable conclusions from the facts. Such a strong reaction from the NAS's report may have a lasting impact on what CSIs are willing to say in court.

Lastly, it is important to identify possible incentives which might encourage CSIs to be more diligent in their craft and improve upon available techniques and standards. The exclusionary rule was created to deter police misconduct and was meant to exclude illegally seized evidence from use at trial.²⁸⁰ It is heavily debated whether the exclusionary rule is an effective tool in deterring those police officers who willfully violate a defendant's Fourth or Fifth Amendment right in pursuit of a conviction.²⁸¹ It is even more tenuous to suggest the exclusionary rule would effectively influence or deter a CSI from making mistakes at a crime scene. If the exclusionary rule is not an adequate deterrent against misconduct or sloppy police work at the crime scene, other alternatives—mandatory training, reprimands, or administrative punishment for blatant or negligent disregard for departmental protocols—should be considered.

V. CONCLUSION

In the short term, prosecutors must decide prior to trial whether to list the CSIs as expert witnesses, or render them partial experts (evidence collection protocols) or as lay witnesses. Prosecutors also need to prepare CSIs for direct and cross-examination. Additionally, defense counsel should familiarize themselves with crime scene management, how and by whom evidence is collected, the rules for chain of custody, and any anomalies or discrepancies in law enforcement's methodology.

^{279.} See Eric S. Lander, Opinion, Fix the Flaws in Forensic Science, N.Y. TIMES, Apr. 21, 2015, at A23.

^{280.} Linkletter v. Walker, 381 U.S. 618, 636–37 (1965).

^{281.} L. Timothy Perrin et al., If It's Broken, Fix It: Moving Beyond the Exclusionary Rule–A New and Extensive Empirical Study of the Exclusionary Rule and a Call for a Civil Administrative Remedy to Partially Replace the Rule, 83 IOWA L. REV. 669, 674 (1998).

Any deviation from established protocols can be used by the defense counsel to discredit both the CSI and the evidence collected. Furthermore, the National Academy of Sciences may consider addressing some of the debated concerns and issues related to crime scene collection protocols similar to the previous work by the Academy on forensic evidence analysis. The quality of the crime scene investigation is just as important as the evidentiary findings themselves.

In the long term, it is important to remember that forensic science as applied to proper evidence collection techniques is still in its infancy. Richard Gould's trial in 1840 was not that long ago. Forensic science is slowly evolving and new protocols for the collection of evidence take time to develop and implement. It is a slow but steady process.

Both prosecutors and defense counsel have learned how best to approach CSIs on the witness stand, either to bolster or weaken their respective positions on a given case. In the future digital age, as forensic science improves, perhaps evidence collection standards will become more uniform and additional automatic safeguards will be put in place. Meanwhile, trial attorneys must familiarize themselves with the plethora of present-day crime scene protocols and hold the CSIs to the highest of professional standards.