

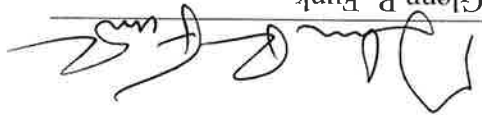


  
Glenn R. Funk

I hereby certify that a true and exact copy of the foregoing has been forwarded to Jessica Van Dyke and Stephen Ross Johnson, Attorneys for Claude Garrett on this the 22 day of November, 2021.

**CERTIFICATE OF SERVICE**

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Glenn R. Funk

Respectfully submitted,

This Office knows of clear and convincing evidence of creating a reasonable likelihood that Mr. Garrett did not commit the offense of which he was convicted. As required by RPC 3.8 (g) and (h) this Office will seek to remedy the conviction by utilizing the appropriate procedural process to bring this matter within the jurisdiction of this Court. The State will then request the conviction in this matter be vacated and the case dismissed.

The CRU has conducted an extensive investigation into the case of Claude Garrett. A copy of the CRU report and exhibits is attached to this Notice.

As the elected District Attorney General for the 20<sup>th</sup> Judicial District the undersigned established a Conviction Review Unit (hereafter "CRU") within the Office of the District Attorney whose purpose is to investigate claims of actual innocence consistent with and in furtherance of the ethical duties set forth above.

Applicant Attorneys:  
Jessica Van Dyke of the Tennessee Innocence Project and Michael Holley of the  
Federal Public Defender's Office

CASE NO. 1992-B-961  
First-Degree Murder

**CLAUDE GARRETT**

FINAL REPORT

OFFICE OF THE DISTRICT ATTORNEY GENERAL  
20<sup>th</sup> JUDICIAL DISTRICT, DAVIDSON COUNTY  
CONVICTION REVIEW UNIT

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*Filed Under Seal*

# I CASE SUMMARY

Claude Francis Garrett is serving a life sentence for the February 24, 1992 death of his then-girlfriend, Lorie Lee Lance, who succumbed to smoke inhalation during an early morning house fire. Two separate juries convicted Garrett of first-degree murder, first in 1993 and again in 2003, and Garrett has been in custody since June 5, 1992. Garrett was born November 17, 1956, and currently resides at Riverbend Maximum Security Institution.

In 1992, Ms. Lance and Garrett lived together in a 900-square-foot, cinder block, kerosene-heated home located at 114 Broadway Street in Old Hickory, Tennessee.<sup>1</sup> The couple lived together for a year and a half prior to the fire.<sup>2</sup> The home consisted of a living room, kitchen, two bedrooms, one bathroom, and a utility room that could only be accessed through the kitchen. Garrett had a criminal record that included theft and burglary convictions.<sup>3</sup>

Ms. Lance was only 24 years old at the time of her death. She worked at Uno's Pizzeria and would have graduated from Volunteer State in April of 1992 with a degree in business. She was especially close with her family, who describe her as loving and happy, the kind of person who "never met a stranger."<sup>4</sup>

Accounts from family members and friends of Ms. Lance, along with reports from neighbors, suggest Ms. Lance and Garrett had a tumultuous relationship which may have included domestic assault. The CRU has no reason to disbelieve these accounts. Although Garrett was never charged, an MNPD incident report detailed one instance of domestic violence between the two.<sup>5</sup> The State never presented this information to the jury, but it certainly informed the decision to move forward with prosecution.

The night prior to the fire, Ms. Lance, Garrett, and Ms. Lance's stepfather, Sammy Lane Jones, enjoyed a casual night out at Daisy Mae's, a bar located at 4617 Old Hickory Boulevard. Over the course of several hours, Ms. Lance and Garrett both consumed a considerable amount of alcohol,<sup>6</sup> and there was no apparent conflict between them.<sup>7</sup> Ms. Lance and Garrett left the bar and arrived home sometime between 1:00 and 3:00 a.m.

<sup>1</sup> Trial 1 transcript, pp. 8, 219.

<sup>2</sup> Trial 1 transcript, p. 134.

<sup>3</sup> Garrett FBI Investigative Record; Porter diagram (Marked Exhibit A).

<sup>4</sup> Trial 2 transcript, p. 181.

<sup>5</sup> MNPD Incident Report, complaint No. 91-126572.

<sup>6</sup> By Garrett's own admission, he consumed twelve beers and smoked marijuana.

<sup>7</sup> Trial 2 transcript, pp. 9, 351 (Ms. Lance had a BAC of .06 and Urine Alcohol of .11 at approximately 10:15 am the morning of the fire, at least eight hours after the time she left the bar).

The fire began sometime before 5:00 a.m. and originated in the living room of the home. A neighbor, Ruby Alcorn, was awakened by what she described as "commotion" and reported looking outside and seeing Garrett jumping and yelling "Lorie!" Ruby then woke her husband, Mike Alcorn, and son, Bobby Alcorn. Bobby later testified he was already awake and heard the "boom" sound. He stated the sound was similar to a gunshot.

Upon awakening, Mike and Bobby heroically leapt to action in an attempt to rescue Ms. Lance from the home, which was fully engulfed in flames. They, along with Garrett, ran around the house breaking windows and calling for Ms. Lance.<sup>8</sup>

Firefighters arrived on the scene at approximately 5:08 a.m.<sup>9</sup> Garrett immediately informed them Ms. Lance was still inside.<sup>10</sup> He first told them she may be in the front bedroom, and later, that she may be in the back of the house. Firefighters were able to quickly extinguish the fire, but due to the poor visibility in low light and extreme smoke,<sup>11</sup> Ms. Lance was not discovered until 5:45 a.m.<sup>12</sup>

Firefighters found Ms. Lance in a utility room at the rear of the home lying next to a washer and dryer, covered with an assortment of household items. They accessed the utility room without having to force entry. The door to the utility room was outfitted with a sliding bolt latch fixed to the exterior door frame and had no other knob or handle. The status of this latch became a critical point of controversy in the trials that would follow (*see infra*). The rear of the house and the utility room had no point of exit; the only escape from the house would have been through the front door.

Following the incident, investigators sought to determine how and where the fire started, as well as how Ms. Lance came to be in the utility room. Ms. Lance's autopsy revealed she suffered first and second degree burns on her face, neck, and hands, and died of smoke inhalation. Though multiple experts have assessed a likelihood Ms. Lance received these burns prior to entering the utility room, the medical examiner, Dr. Gretel Harlan, never made a conclusive determination as to when Ms. Lance suffered her burns. Dr. Harlan did conclude that Ms. Lance was breathing at the time she entered the utility room and that her burns occurred

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<sup>8</sup> Trial 1 transcript, pp. 153-55.  
<sup>9</sup> Trial 2 transcript, pp. 954-55.  
<sup>10</sup> Trial 1 transcript, pp. 301-02.  
<sup>11</sup> Trial 2 transcript, pp. 15, 392.  
<sup>12</sup> Trial 1 transcript, pp. 303-04.

while she was in an upright position. Dr. Harlan determined Ms. Lance died of smoke inhalation within ten to thirty minutes after exposure and that there was no indication she had been

restrained, drugged, or involved in a physical altercation.<sup>13</sup> Dr. Harlan's report did not list the

official location or time of Ms. Lance's death.<sup>14</sup>

Emergency room records document Garrett having singed hair, eyebrows, and forearm

hair. He had second-degree burns on his left bicep area and left hand.<sup>15</sup> His burns were similar in

location, depth, and intensity to those of Ms. Lance.<sup>16</sup>

Fire Marshal Investigator Kenneth Porter arrived on the scene at 6:30 a.m. Upon entering

the home, he immediately noticed what he referred to as a "large pour pattern" of "depth and

magnitude" on the living room floor.<sup>17</sup> He then instructed firefighters to remove the living room

furniture to the front yard and to use a booster hose to wash the room to better expose the

irregular burn patterns he observed. Investigator Porter diagrammed the scene and collected

samples from the floor where he observed charring, as well as from underneath the floorboard

via the basement.<sup>18</sup>

MNPD Detectives David Miller and Mike Roland arrived on the scene at 6:22 a.m.

Detective Miller was lead detective. Detective Roland interviewed the neighbors, Mike, Ruby

and Bobby Alcorn.<sup>19</sup> He returned to the scene two more times that day, once to escort Dr. Harlan

through the crime scene, and again to assist Detective Miller and Bureau of Alcohol, Tobacco,

and Firearms (ATF) Agent James Cooper.<sup>20</sup>

While Detective Miller remained at the scene, Detective Roland went to the hospital.

There, he viewed Ms. Lance's body and observed redness consistent with injuries from fire. She

was clothed in a t-shirt, socks, and underwear.<sup>21</sup> Apart from Ms. Lance's burns, he did not

observe signs of trauma or struggle.<sup>22</sup>

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<sup>13</sup> Trial 2 transcript, pp. 659-60.

<sup>14</sup> Harlan autopsy report (Marked Exhibit B).

<sup>15</sup> Donelson Hospital Emergency Department Report, p. 8 (Marked Exhibit C).

<sup>16</sup> Bayne report (marked Exhibit D); Beyler report (Marked Exhibit E); DeHaan report (Marked Exhibit F).

<sup>17</sup> Porter report (Marked Exhibit G).

<sup>18</sup> Porter diagram (Marked Exhibit A).

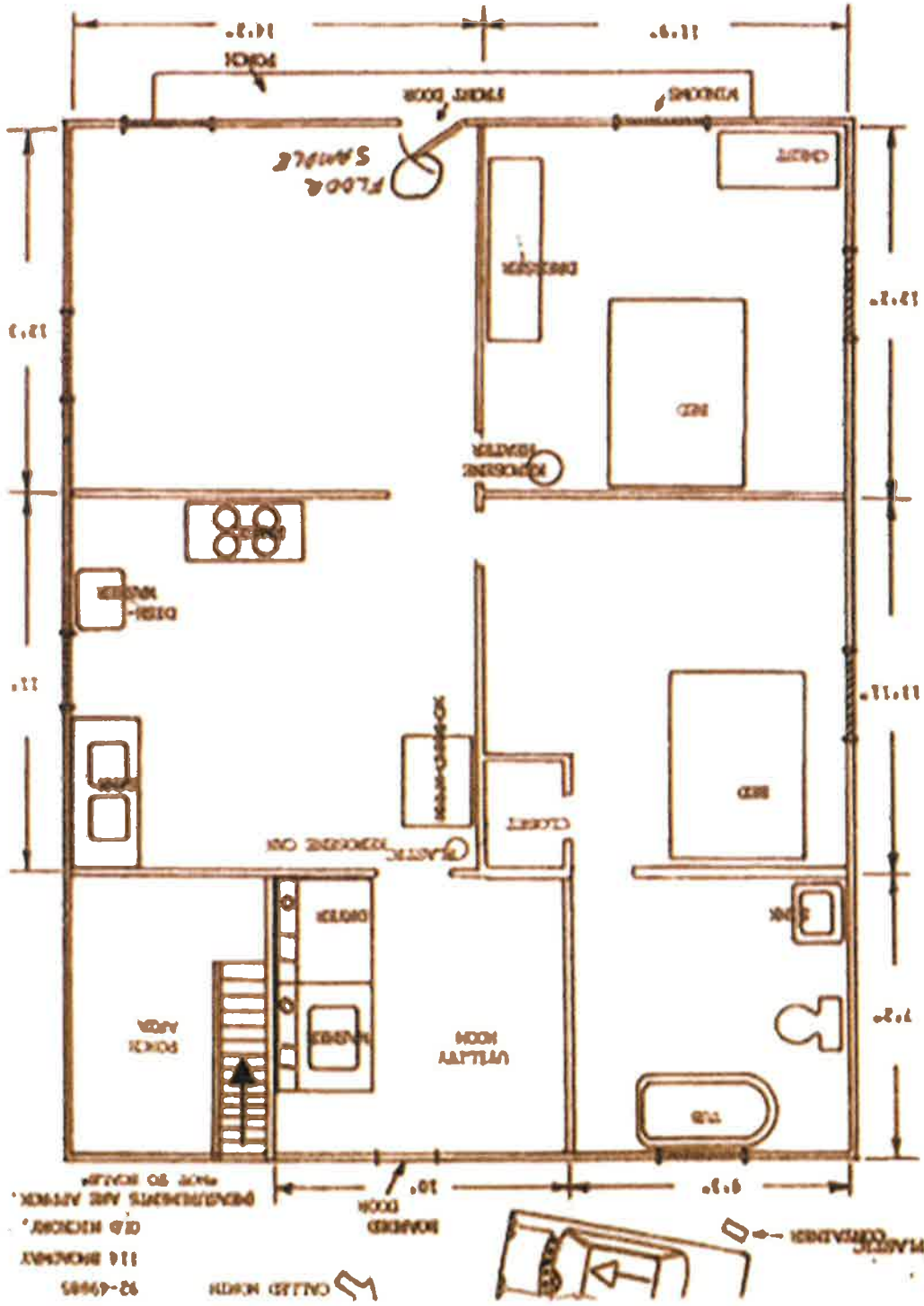
<sup>19</sup> Trial 2 transcript, pp. 20, 677.

<sup>20</sup> Trial 2 transcript, pp. 23, 698.

<sup>21</sup> Trial 2 transcript, pp. 6-12, 679.

<sup>22</sup> Trial 2 transcript, pp. 699-700.

# PORTER DIAGRAM





Detective Roland interviewed Garrett twice on the day of the fire, first at the hospital and again with Detective Al Gray at the police station at 9:05 a.m. Detective Roland observed signs of thermal injury on Garrett's body, including singed hairs on his face and arms, a bandaged hand, and a possible burn on his forehead.<sup>23</sup>

Garrett, who smelled of alcohol, relayed that he and Ms. Lance had been drinking at a bar until late the previous night. Upon coming home at approximately 1:00 a.m., they fell asleep separately on a couch and a loveseat in the living room. Later, they both relocated to the bedroom and again went to sleep. Garrett was unsure of whether the smoke or heat woke him first, but upon waking, he went into the living room and found a raging fire. Garrett stated he went back into the bedroom, woke Ms. Lance, and led her toward the front door with him. Garrett stated that for reasons unknown to him, Ms. Lance suddenly turned and ran toward the back of the house while Garrett escaped out the front door.<sup>24</sup> Following this interview, Garrett voluntarily surrendered his clothing for testing, left the police station, and went to stay at the Alcorns' home. Detective Miller then requested assistance from ATF Agent Cooper in determining the cause and origin of the fire.<sup>25</sup>

In fire investigation, the place where a fire starts is referred to as the "point of origin" or "area of origin." This may be either an exact point or a general area. In almost all cases, the area of origin must be correctly located in order to properly determine the fire's cause.<sup>26</sup> Fire will burn longer at or near the point of origin, and thus the damage will typically be greater. Normally, the fire's cause will be identified at or near the area of origin, and physical evidence regarding the fire classification, whether accidental, natural, or incendiary, is often recovered. Once the area of origin is determined, it may confirm or contradict the statements of witnesses or suspects. One of the most important aspects of any fire investigation is the proper recognition, identification, and analysis of fire patterns. The circumstances of every fire are different, but

<sup>23</sup> Trial 2 transcript, p. 701.

<sup>24</sup> Trial 2 transcript, pp. 1-5, 15-25, 683-89; Roland recorded interview.

<sup>25</sup> Trial 1 transcript, pp. 16-17, 467.

<sup>26</sup> NFPA 921 § 18.1 (This chapter recommends a methodology to determine the origin of a fire. The area of origin is defined as a structure, part of a structure, or general geographic location within a fire scene, in which the "point of origin" of a fire or explosion is reasonably believed to be located. The point of origin is defined as the exact physical location within the area of origin where a heat source and the fuel interact, resulting in a fire or explosion. The origin of a fire is one of the most important hypotheses that an investigator develops and tests during the investigation. Generally, if the origin cannot be determined, the cause cannot be determined, and if the correct origin is not identified, the subsequent cause determination will also be incorrect. The purpose of determining the origin of the fire is to identify in three dimensions the locations at which the fire began.)

each fire is governed by the same chemical and physical principles, which interact with the layout and composition of the environment.<sup>27</sup>

Cooper arrived at the scene at 6:30 p.m., approximately thirteen hours after the fire. With the assistance of Detectives Miller and Roland, Cooper analyzed the scene, took photographs, and collected samples for testing. He determined the cause of the fire to have been the use of an open flame to ignite ignitable liquid vapors, likely kerosene, that had been purposefully poured. Cooper classified the fire as incendiary.<sup>28</sup>

Cooper based his findings primarily on his visual observation of irregular burn patterns (also referred to throughout the record as “char patterns”) in the living room. The physical effects that can be seen or measured after a fire include charring, oxidation, distortion, melting, color changes, and structural collapse. The cluster of these effects is referred to as a pattern. Here, Cooper saw charring on the floor and interpreted the pattern as “pour pattern,” indicating the intentional use of an ignitable liquid. He supported this conclusion with observations of a

comforter<sup>29</sup> that later tested positive for kerosene-range distillate, a full canister containing water and kerosene-range distillate, floor samples that tested positive for kerosene-range distillate, and his belief that the utility room door was latched from the outside during the fire.<sup>30</sup>

In 1993, a jury convicted Garrett of first-degree murder.<sup>31</sup> The prosecution relied heavily on Cooper’s opinions as an expert witness, particularly his conclusions that the comforter was a “trailer” designed to spread fire and that the char pattern in the living room was a “pour pattern” resulting from the intentional use of an ignitable liquid.

During both trials, the State simultaneously offered two competing theories as to what transpired. First, the State suggested Garrett locked Ms. Lance in the utility room, distributed kerosene in the living room, doused the comforter with kerosene, and strategically placed it in the kitchen to connect the living room fire to the utility room where Ms. Lance was trapped. He then ignited the location by the front door where he had poured accelerant and escaped the home. Alternatively, the State posited that Garrett poured the kerosene, doused the comforter, and ignited the fire prior to Ms. Lance waking. After the fire had begun, he either woke Ms. Lance or

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<sup>27</sup> NFPA 921, Ch. 4, *Guide for Fire and Explosion Investigations* (1992 Ed.) (Marked Exhibit H).  
<sup>28</sup> Cooper report (Marked Exhibit I).  
<sup>29</sup> This item is referred to interchangeably throughout the record both as a comforter and a bedspread.  
<sup>30</sup> TBI Official Laboratory Report 04/08/92 (Marked Exhibit J).  
<sup>31</sup> Attorney Greg Galloway represented Garrett at the first trial, Attorney Dwight Scott represented Garrett at the second trial.

she awoke on her own, and he forced her into the utility room at the rear of the home before escaping through the raging flames.

Following the first trial, Garrett appealed his conviction and won a new trial under *Brady v. Maryland*.<sup>32</sup> Prosecuting ADA John Zimmerman<sup>33</sup> had withheld Detective Miller's report, which stated that Captain Otis Jenkins, the firefighter who first made entry into the utility room, told Miller that the door was not locked. Garrett himself discovered the report by making a

Tennessee Public Records Act request for the contents of his case file. Despite Zimmerman's position that the report was neither exculpatory nor reliable, the Tennessee Court of Criminal Appeals found the report to be both exculpatory and material, and as such ordered that Garrett receive a second trial.<sup>34</sup> In 2003, Garrett was again convicted of first-degree murder.

Since the time of Garrett's second trial, multiple nationally-respected fire science and investigation experts have reviewed the Garrett case materials and presented reports. In reviewing Garrett's conviction, the CRU has exhaustively investigated the claims of these experts, consulted an independent expert to analyze the case evidence, and conducted a thorough review of the record in its entirety.

Garrett's conviction in both trials largely hinged on testimony from Cooper regarding his analysis of the scene and his conclusions regarding the fire's cause and origin. Since that time, fire science has developed considerably, and reviewing experts are consistent as to the most probative scientific issues in this case: primarily, that this fire progressed to a state of "flashover" and that this was not adequately considered by the fire investigators analyzing the scene in 1992. This was not possible for investigators because the now-widespread scientific understanding of flashover and its impact on pour pattern identification was not well researched in 1992 and was only at the cusp of acceptance by the fire science community.

Flashover is "a transitional phase in the development of a compartment fire in which surfaces exposed to thermal radiation reach [their] ignition temperatures[s] more or less

simultaneously and fire spreads rapidly throughout the space, resulting in full room involvement or total involvement of the compartment or enclosed area."<sup>35</sup> Cooper, during the second trial in 2003, claimed to have considered the possibility of flashover in 1992 while making the

<sup>32</sup> 373 U.S. 83 (1963).

<sup>33</sup> Now serving as an Assistant District Attorney with the Rutherford County, TN District Attorney's office.

<sup>34</sup> *Garrett v. State*, LEXIS 206, \*2 (Tenn. Crim. App. 2001).

<sup>35</sup> NFPA 921 § 6.3.7.8.

determination as to whether the char pattern he observed was a pour pattern. However, this was not possible given that the impact of flashover on pour pattern determination was not scientifically established until after 1992, and was not widely accepted by the fire science community until after 2003. He did not mention this consideration during the first trial.

Beginning in 2008, the fire science community began thorough study of burn patterns and the effect variables such as ventilation may have on creating irregular charring patterns.<sup>36</sup> These considerations are critical to this case because they provide new scientific evidence, unavailable at the time of conviction, that brings into question whether pour pattern existed at this scene. The identification of a pour pattern was a central finding influencing the investigation and the State's decision to prosecute, and ultimately led to Garret's conviction. New scientific research regarding the misidentification of burn patterns as pour pattern have formed the basis for overturning numerous arson convictions in similar cases where pour pattern identification was the primary issue.<sup>37</sup>

While the CRU's review of this case did not uncover affirmative evidence conclusively establishing Garret's innocence,<sup>38</sup> the CRU finds it **wholly impossible** to maintain confidence in Garret's conviction. Holistic review of the record, the District Attorney's file, and new scientific evidence dismantles every single piece of evidence previously believed to inculpate Garret. The CRU recommends the District Attorney's Office act, in accordance with our obligations under Tenn. Sup. Ct. R. 3.8(g), to notify the Court of these findings and support Garret's petition for his conviction to be vacated.

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<sup>36</sup> Consultation with Gorbett; Steven W. Carman, *The Impact of Ventilation in Fire Investigation* (2012) (Marked **Exhibit K**).

<sup>37</sup> *See Han Tak Lee v. Houtzdale SCL*, 798 F.3d 159 (3d Cir. 2015); *Carr v. State of Georgia*, 482 S.E.2d 314 (Ga. 1997). *See also* National Registry of Exonerations, available at: <https://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=3936> (*See State of Florida v. Gerald Wayne Lewis* (Mr. Lewis was charged but charges were later dropped when it was proven accelerant was not necessary to create the type of pour patterns observed at the scene); *California v. Joann Parks* (granted clemency after an Arson Review Panel accepted scientific testimony that ventilation rather than accelerant caused the observed pour patterns, January 2021)).

<sup>38</sup> There is affirmative evidence of innocence in this case, but none the CRU found independently substantial enough to declare Garret's innocence.

## II. THE INVESTIGATION AND ANALYSIS

### A. Witness Statements of the Alcorns

The initial investigation of the fire included interviews with Garrett and Ms. Lance's neighbors, the Alcorn family (hereinafter Mike, Ruby, and their son, Bobby). These interviews provided information regarding Garrett's behavior immediately after the fire and later the same day upon Garrett's return to the scene. Ruby reported waking to the sound of commotion, looking outside, and seeing Garrett jumping up and down, screaming Ms. Lance's name. She then woke her husband, Mike.

Mike, who testified at both of Garrett's trials, described waking up when Ruby told him the house across the street was on fire.<sup>39</sup> After running over to the burning home, Mike observed Garrett "stumped down by a tree." Garrett then began to make efforts to rescue Ms. Lance by breaking windows and yelling her name. Mike stated that despite Garrett chopping at a boarded window with an axe and breaking multiple windows, he did not seem to be waiting for a response from inside.<sup>40</sup> This account is somewhat inconsistent with Ruby's memory. According to her testimony, the sound of Garrett yelling and jumping up and down was enough to wake her.

Mike and Garrett were soon joined by Bobby, who also testified at both trials. Bobby

stated he was awake and getting ready for school when he heard a loud sound akin to a gunshot. Bobby testified Garrett only began breaking windows after Mike showed up to assist.<sup>41</sup> Ruby told police Garrett was crying when she looked out the window, but despite his shouting and jumping, he didn't appear to be trying hard to get Ms. Lance out of the house. Shortly thereafter, the fire department arrived and extinguished the fire. The crux of the Alcorns' various accounts is that Garrett did not appear to be trying to save Ms. Lance with genuine vigor.

Interviewed again by Detective Miller two days after the fire, Bobby advised that

following his police questioning, Garrett returned to the Alcorns' home. Garrett kept repeating "they think I did it. I would have had to put her in the room, shut her in the room, get a gas can, siphon gas out of her car, go to the house, pour it over the door facing, and window facing, go inside, pour it on the love sofa, on the floor, and splash it around then strike a match." Ruby also

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<sup>39</sup> Trial 2 transcript, pp. 201-02.  
<sup>40</sup> Trial 1 transcript, p. 156.  
<sup>41</sup> Trial 2 transcript, p. 270.

noted this when she testified at trial, adding that "he was concerned for himself. He never showed no concern for Lorie."<sup>42</sup>

The Alcorns each relayed that they did not immediately find Garrett's behavior alarming, but upon learning he was a suspect, they began to re-evaluate their memories of the morning's events. Mike stated, in a later meeting with the District Attorney's office, that "looking back, lots of things seemed suspicious."<sup>43</sup> This suspicion influenced the decision of the District Attorney's Office to pursue prosecution of this case, and throughout both trials, the Alcorns' statements painted Garrett's behavior in exactly such a manner.

### **B. Dr. Gretel Harlan's Medical Examination**

Davidson County Medical Examiner Dr. Gretel Harlan performed an autopsy on Ms. Lance's body on February 24, 1992.<sup>44</sup> Dr. Harlan determined that Ms. Lance suffered both first and second-degree burns on over twenty percent of her body and found soot depositions on her skin and around her nose and mouth.<sup>45</sup> Dr. Harlan noted burns on the back of Ms. Lance's left hand.<sup>46</sup> There was soot deposition in her larynx, trachea, and bronchial tubes, congestion of the internal organs, fluid buildup in her lungs and brain, and pulmonary hemorrhages.<sup>47</sup> At the time of testing, Ms. Lance's blood alcohol concentration (BAC) was .06%, her urine alcohol concentration .11%, and there were no drugs detected.<sup>48</sup> Dr. Harlan agreed there is a likelihood Ms. Lance's BAC may have been as much as .02% higher in the hours before her death.<sup>49</sup> Dr. Harlan reached the conclusions that Ms. Lance was breathing while inside the utility room, that she died of smoke inhalation, and that her death likely occurred between ten and thirty minutes after her exposure to the smoke.<sup>50</sup>

Following the autopsy, Dr. Harlan visited the scene. She requested Investigator Porter visit the scene with her and point out his findings. The purpose of this visit was to aid in her

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<sup>42</sup> Trial 2 transcript, p. 926.

<sup>43</sup> Notes from 7/16/03 Meeting at DA's office.

<sup>44</sup> Trial 1 transcript, p. 260.

<sup>45</sup> Trial 1 transcript, pp. 18-25, 260.

<sup>46</sup> Trial 1 transcript, p. 262.

<sup>47</sup> Trial 1 transcript, pp. 263-64.

<sup>48</sup> Trial 1 transcript, pp. 11-13, 266. (During the second trial, Dr. Harlan corrected a typographical error from her

report showing the urine level as .011%).

<sup>49</sup> Trial 2 transcript, p. 354.

<sup>50</sup> Trial 1 transcript, pp. 9-16, 267, 270.

determination as to the cause and manner of death.<sup>51</sup> Dr. Harlan entered the home, observed the utility room door, and noted the external latch.<sup>52</sup>

At both trials, Dr. Harlan testified it was possible the room contained enough heat to have caused the burns she observed on Ms. Lance's hands and face. She compared these burns to sunburns that can be caused without direct exposure to searing heat. Dr. Harlan also noted there was soot on Ms. Lance's socks but no burns, nor was any part of her clothing destroyed by fire.<sup>53</sup> On cross-examination at the second trial, when challenged regarding the length of

exposure to indirect heat that would be necessary to produce such burns, the lack of burns on Ms. Lance's exposed legs, and evidence Ms. Lance had direct exposure to the fire prior to entering the utility room, Dr. Harlan admitted it was possible the burns had occurred outside the room.<sup>54</sup> Dr. Harlan further conceded that she lacked the expertise to evaluate the thermal environment in the different areas of the home and to predict the burns that would result from the thermal environment; "[her] expertise with regards to burns is the diagnosis of the extent of burn damage and its depth, not how a heated environment provides thermal energy to the skin to cause that damage."<sup>55</sup>

Dr. Harlan testified it was likely Ms. Lance was in an upright position when she received her burns. There were no other injuries or trauma to Ms. Lance's body and nothing to indicate a physical altercation or struggle.<sup>56</sup> Dr. Harlan further testified it is not unusual for those in a house fire to exhibit irrational behavior and seek shelter in an area of the house further away from the fire, or for them to close themselves into a room. Dr. Harlan said, in her experience, that fire victims are "often disoriented, they make a wrong turn and sometimes they are just disoriented from the smoke and the soot that they may not know where they are, and the obvious logical thing to them at that point, probably is to try to get as far from the flame as possible."<sup>57</sup> Dr. Harlan also stated she had seen individuals cover themselves with items to protect themselves from fire.<sup>58</sup>

<sup>51</sup> Harlan autopsy report (Marked Exhibit B).

<sup>52</sup> Her observations regarding the latch are discussed, *infra*, in the section labeled "The Utility Room."

<sup>53</sup> Trial 1 transcript, p. 291.

<sup>54</sup> Trial 1 transcript, pp. 20-25, 275, 279-80.

<sup>55</sup> Beyler report, p. 11 (Marked Exhibit E).

<sup>56</sup> Trial 1 transcript, pp. 3-7, 282; Trial 2 Transcript, pp. 350-51.

<sup>57</sup> Trial 2 transcript, p. 349.

<sup>58</sup> Trial 2 transcript, p. 350.

## C. Agent Cooper's Analysis

Agent Cooper's conclusions regarding the origin and cause of the fire were the central evidence leading to Garrett's conviction.<sup>59</sup> Comprehensive review of the evidence and analysis by multiple fire investigation experts reveal Cooper's investigation to be faulty, his methods outdated, and his conclusions unsubstantiated. His presentation to both juries relied on subjective analyses and biased presumptions. His testimony in the second trial was emotionally charged, filled with inflammatory overstatements, mischaracterizations of the evidence, and assumptions regarding Garrett's intent.

In both trials, Cooper correctly emphasized that the job of a fire investigator is to determine causation. Cooper's analysis commingled his role as fire investigator-present solely to determine fire origin and cause-and criminal investigator, a role, in this case, not belonging to him.<sup>60</sup> The inappropriate merging of Cooper's role as fire investigator and criminal investigator had an impact on this case that cannot be overstated. This conflation led Cooper to draw conclusions regarding evidence far outside his area of qualification, a confound that has been documented in academic literature:

When a forensic examiner begins to embrace the role of a criminal investigator, the bias created from that change in perspective can shape his observations, analysis, and conclusions. Expert conclusions influenced by bias, whether in fire investigation or another forensic field, should not be confused with an intentional desire on the part of the expert to proffer false testimony. On the contrary, the victim of bias is often unaware of its influence. This creates a situation where the expert witness providing unreliable testimony is harboring a false certainty regarding the accuracy of [the expert's] conclusions.<sup>61</sup>

Detectives relied so heavily on the fire investigation that they failed to perform basic investigative functions as they would have done in any other suspected homicide. For example, Detective Miller failed to collect, analyze, or properly document the utility room door and

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<sup>59</sup> This is evident after reviewing transcripts from both trials and was further confirmed by a CRU interview with second trial juror Pamela Strube, as well as a review of comments made by a first trial juror in a televised *Reasonable Doubt* interview. Ms. Strube recalled that she and her fellow jurors relied almost entirely upon Cooper's analysis in their decision to convict. She was unmoved by the defense expert's presentation. She remembered that she and the other jurors could not really understand the scientific explanations but that "Agent Cooper was just so confident and convincing."

<sup>60</sup> Tafti and Bieber, *Folklore and Forensics: The Challenges of Arson Investigation and Innocence Claims*, 119 W. Va. L. Rev. 549, 576-83 (2017). Available at: <https://wvlawreview.wvu.edu/files/d/a717ae21-52c8-49e9-9105-71b57dbb6d8/bieber-monteone-post-page-proof.pdf>

<sup>61</sup> Tafti and Bieber, *supra* note 60, at 580.



latch.<sup>62</sup> According to the State's theory, **these were the murder weapons in this case.** Nothing in the file indicates any of the materials found on Ms. Lance's body were collected or tested for fingerprints or further analysis. The smoke alarm was not analyzed beyond testing its

functionality and swabbing for accelerant.<sup>63</sup> There was testimony regarding a request to swab Garrett's hands for accelerant, but no mention of an attempt to scrape under his fingernails or swab his feet. The inadequacy of the criminal investigation forced the State to rely almost

entirely on Cooper's fire investigation in determining Garrett's culpability.

Cooper's testimony grasped to demonstrate the probative value of evidence and utilized incongruent logic to justify his conclusion that the cause of the fire was arson and that Garrett

was responsible. Despite the forcefulness of Cooper's beliefs, he consistently declined to provide any rationale for his boldest statements, failed to preserve crucial evidence, and filed a meager two-page report that has stymied more rigorous review of his methods and thought processes.

The CRU considers each piece of evidence Cooper identified as sinister to be neutral,

disprovable, or inscrutable due to investigative missteps and failure to utilize scientifically viable methods. Without exception, every expert who has examined the entirety of the Garrett case file has agreed on a single premise: the original fire investigation was inadequate, and the conclusions lacked a reliable scientific basis.<sup>64</sup>

At the time of the first trial, Cooper had been an ATF fire investigator since 1979.<sup>65</sup>

Cooper had a bachelor's degree in criminal justice and had completed numerous fire

investigation courses during his time with ATF. Cooper retired in 1994 and no longer

participated in fire investigation, although he still conducted trainings<sup>66</sup> and kept his International Association of Arson Investigators (IAAI) certification active.<sup>67</sup> By the second trial in 2003,

Cooper had been retired for nine years.

Despite Cooper's testimony that the bulk of his experience in fire investigation was with

commercial property rather than house fires,<sup>68</sup> CRU interviews with current and former

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<sup>62</sup> The record contains no evidence the latch was measured, its type of metal noted, or information about the door or its casing collected.

<sup>63</sup> There was no attempt to obtain fingerprint samples from the smoke alarm.

<sup>64</sup> Bayne report (marked **Exhibit D**); Beyler report (Marked **Exhibit E**).

<sup>65</sup> Cooper resume.

<sup>66</sup> Trial 2 transcript, pp. 3-15, 759 (Cooper's trainings primarily related to explosives).

<sup>67</sup> Trial 2 transcript, p. 95.

<sup>68</sup> Trial 2 transcript, pp. 1-3, 23-25, 762-63.

Tennessee ATF agents<sup>69</sup> indicated Cooper was well-versed in residential investigation, conducted training throughout the state, and was respected among his colleagues. Cooper relied upon his own experience as a fire investigator and experiments he had personally conducted throughout the years to guide his investigation.<sup>70</sup> He did not describe himself as a fire scientist nor did he claim to utilize the scientific method.

Early in Cooper's first trial testimony, he demonstrated both expectation and role bias. Cooper testified that a fire will never destroy signs of its origin<sup>71</sup> and stated a belief that an investigator doing his job correctly should always be able to find evidence of causation.<sup>72</sup> Statistics, however, demonstrate between 20% and 43% of fatal structure fires have an undetermined cause.<sup>73</sup> Despite Cooper's testimony that a fire will never destroy signs of causation, a report from the Department of Justice and National Institute of Justice makes clear: The destructive power of the fire itself compromises evidence from the outset. The larger a fire becomes and the longer it burns, the less evidence of causation will remain. In some fires, sufficient data to establish the origin and cause (i.e., evidence) do not survive, no matter how diligent the search or well prepared the searcher. This destruction may be exacerbated by the normal and necessary duties of fire personnel carrying out rescue, suppression, overhaul, and salvage tasks.<sup>74</sup>

Cooper arrived at the scene after 6:30 p.m., more than twelve hours after the fire had been extinguished.<sup>75</sup> Prior to Cooper's arrival, at the direction of Investigator Porter and Detective Miller, firefighters had cleared the living room of all furniture and sprayed the entire living room with their booster hoses, pumping thousands of gallons of water into the scene.<sup>76</sup>

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<sup>69</sup> CRU interviews with ATF Agent Mark Hoback and former ATF Agent Brian Hoback.  
<sup>70</sup> Trial 2 transcript, pp. 829-31.  
<sup>71</sup> Trial 1 transcript, pp. 12-16, 471.  
<sup>72</sup> Trial 1 transcript, pp. 21-23, 471.  
<sup>73</sup> National Association of State Fire Marshals, *Conquering the Unknowns* (2014) (finding that "43% of fatal structure fires reported did not have cause determinations:"). Fire Expert John Lentini reported that approximately 20% of the suspicious fires he had investigated and documented between 1980-1990 had an undetermined cause, which is consistent with estimates from the US Fire Administration. At the time of the 1993 trial, Cooper testified that of the 180 fires he had investigated, he assessed 129 (72%) to have an incendiary (arson) cause.  
<sup>74</sup> US Department of Justice, Office of Justice Programs, National Institute of Justice Publication, *Fire and Arson Scene Evidence: A Guide for Public Safety Personnel 4* (June 2000).  
<sup>75</sup> Trial 1 transcript, p. 767.  
<sup>76</sup> Trial 1 transcript, pp. 763-64.

While combating the fire, firefighters removed sections of sheet rock from the walls, exposing the orange insulation. They did this to locate fire extensions to prevent rekindling.<sup>77</sup>

The reason for spraying the living room with fire hoses was to clear the floor so that it could be examined for irregular burning patterns, the focal point of fire investigation circa 1992 that has since been deemphasized.<sup>78</sup> While the washing of floors remains common today, as it relates to this case, it both destroyed evidence and contributed to scene contamination,

particularly with respect to kerosene (discussed *infra*).<sup>79</sup> NFPA 921 today recommends that the fire scene be preserved, and for exactly the reasons at play in this case. From the perspective of a modern fire investigation governed by current best practices, Investigator Porter altered and

potentially destroyed the evidence from the room of origin, and twelve hours after this taking place, there was little possibility Cooper could have conducted a complete fire investigation.<sup>80</sup> Cooper was only able to observe the sprayed and cleared floor of the living room and

items in other rooms of the home, a different scene than the one firefighters and investigators encountered that morning.<sup>81</sup> Cooper testified he, Detective Miller, and Detective Roland placed gloves on their hands and entered the home. They did not wear coverings over their shoes.

Detective Miller testified he did not observe Cooper interviewing any firefighters for the purposes of reconstructing the furniture placement, nor did investigators attempt to place any furniture back into the room for Cooper's investigation.<sup>82</sup> Furthermore, Cooper stated at trial that because the house had "normal furniture," he did not consider the layout of the living room to be "relevant data."<sup>83</sup> NFPA 921 and 1033 speak directly to this type of investigative error:

All furniture and other contents within the fire scene should be photographed as found. Furniture and other contents involved and uncovered during the excavation and reconstruction should be photographed throughout the process and again after reconstruction. Protected areas left by any furnishings or other contents should also be photographed.<sup>84</sup>

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<sup>77</sup> Trial 1 transcript, pp. 1-5, 15-26, 484. (This is known as "overhaul" in the fire investigation community. At trial, Cooper stated imprecisely that firefighters did this to find "smoldering" fires in the wall, but "smoldering" is a term of art referring to a specific type of combustion).

<sup>78</sup> NFPA 921 § 6.17.8.2.5.

<sup>79</sup> Beyler report, p. 8 (Marked Exhibit E). There is disagreement among experts as to whether floor washing conforms to best practices.

<sup>80</sup> Beyler report, p. 8 (Marked Exhibit E).

<sup>81</sup> Trial 1 transcript pp. 9-17, 483.

<sup>82</sup> Trial 2 transcript, pp. 640-41.

<sup>83</sup> Trial 2 transcript, p. 113.

<sup>84</sup> NFPA 921 § 16.2.8.6.3.

Examine and remove fire debris, given standard equipment and tools, so that all debris is checked for fire cause evidence, potential ignition source(s) is identified, and evidence is preserved without investigator-inflicted damage or contamination.<sup>85</sup>

Reconstruct the area of origin, given standard and, if needed, special equipment and tools as well as sufficient personnel, so that all protected areas and fire patterns are identified and correlated to contents or structural remains, items potentially critical to cause determination and photo documentation are returned to their pre-fire location, and the area(s) or point(s) of origin is discovered.<sup>86</sup>

Cooper was mistaken in his testimony that the walls of the home were "typical drywall, sheetrock," which he testified would burn slower than wood paneling.<sup>87</sup> In fact, the walls of the home included sheetrock but were lined with plywood.<sup>88</sup>

Detective Roland testified it appeared to him that Cooper was thorough in assessing the scene, but it is difficult to say with any precision what specific investigative actions Cooper took or methods he used because of the deficiency of his official report and the evasive nature of his testimony. Despite the central role his conclusions played at each trial, and his reliance upon his report in the second trial, the two-page report merely summarized his conclusion that the cause of the fire was arson and provided no explanation or description of his methodologies.

The fire science community has condemned this practice. According to Craig L. Beyler, Ph.D., "[b]oth NFA 921 and 1033 call for investigators to prepare reports that include their opinions and conclusions along with bases for these findings and conclusions."<sup>89</sup> During the second trial, Mr. Scott twice pressed Cooper on his use of best practices in fire investigation: Scott: Now, do you approach your investigations, Mr. Cooper, scientifically?  
Cooper: No, sir.<sup>90</sup>

Scott: How do you approach them?  
Cooper: I approach them, as I previously testified, going in- if you- in reference to the fire patterns, the way the fire spread, the normal combustible materials in there, the abnormal combustible materials in there, that's how I approach a fire scene. That's how I make my determination.<sup>91</sup>

<sup>85</sup> NFA 1033 § 4.2.6.

<sup>86</sup> NFA 1033 § 4.2.7.

<sup>87</sup> Trial 1 transcript, p. 114.

<sup>88</sup> Beyler report, p. 8 (Marked Exhibit E); Trial 2 Transcript, p. 127 (Cooper admitted that he "did not talk to the

firemen about the material on the walls").

<sup>89</sup> Beyler report, p. 7 (Marked Exhibit E) (citing NFA 921 §16.5.3 and NFA 1033 §4.7.1).

<sup>90</sup> All bolding of quotations in this report is emphasis added by the CRU.

<sup>91</sup> Trial 2 transcript, p. 832.

Scott: So, you would agree [the scientific method is] a good approach in trying to determine what the cause and origin of a fire is? The problem being- Cooper: There is a scientific method, Mr. Scott.

Scott: Uh-hum.  
Cooper: It's recognizing the need. Need to know what caused that fire. Earlier testimony by myself this morning is, I needed to know what caused that fire.<sup>92</sup>

Modern fire investigation has shifted radically since 2003, and rigorous methodology rooted in sound scientific practice has become the norm. According to Beyler:

The basic methodology of fire investigation is the scientific method, including data collection, hypothesis generation, and hypothesis testing. Data collection includes information obtained from the fire scene observations, from testing physical artifacts, from witness statements, and other forms of documentation. The data is used to first formulate hypotheses concerning the origin of the fire.<sup>93</sup>

This stands in stark contrast to Cooper's own characterization of his approach to this investigation.

The fire science community expressed dramatically mixed reactions to the development of NFPA 921. Many were quick to point out that it is not a "standard," but instead one of many manuals and treatises. Similarly, fire expert John Lentini<sup>94</sup> explained:

To state that NFPA 921 was not immediately embraced by the fire investigation profession would be an understatement. In fact, the howls of protest from fire investigation professionals were deafening... No investigator wanted to admit to the unspeakable possibility that he had caused an innocent person to be wrongly convicted... The profession was in denial.<sup>95</sup>

While it is true that NFPA 921 is not technically a standard, as Dr. Greg Gorbett explained to the CRU and other fire experts confirmed,<sup>96</sup> NFPA 921 "is recognized as establishing the standard of care for the fire investigation profession and is the only consensus document that exists for fire investigators."<sup>97</sup> It would be safe to assume, based on his methods and testimony in the second

<sup>92</sup> Trial 2 transcript, p. 833.

<sup>93</sup> Beyler report, p. 7 (Marked Exhibit E).

<sup>94</sup> *Claude F. Garrett v. State of Tennessee*, 2012 WL 3834898 (Tenn. Ct. Crim. App. 2012).

<sup>95</sup> Lentini report, p. 13 (Marked Exhibit I).

<sup>96</sup> *Garrett*, 2012 WL at \*10 (quoting Bayne: "NFPA 921 is the one and only document that represents the consensus of the fire investigation community.").

<sup>97</sup> Greg Gorbett, Ph.D., et al., *Use of Damage in Fire Investigation: A Review of Fire Patterns Analysis, Research and Future Direction*, FIRE SCIENCE REVIEWS 4 (2015) (Marked Exhibit M).

trial, that Cooper fell into the category of investigators hesitant to embrace the modern scientific practices outlined within NFPA 921.

Cooper was either unable or unwilling to articulate a coherent rationale at trial as to why he deemed various pieces of evidence suspicious. He relied on his personal experience and education rather than scientific methodology or data to assure the jury that the evidence was, in fact, damning. At trial, it was Cooper's testimony alone that drew from all the evidence and created a cohesive narrative pointing to Garrett's involvement. This was crucial for the State since no single piece of evidence could establish guilt and since no other witness could testify to the entire panoply of evidence. Cooper himself acknowledged his theory required that each piece of evidence be viewed within the context of the overarching narrative:

Not one thing stands by itself. The pour pattern in the living room does not stand by itself. You have to have the comforter. You have to have the kerosene can. You have to have that latch on the door. You have got to have the smoke alarm. And you have got to have where Mrs. Lance was found, and what was on top of Mrs. Lance. That is the hypothesis.<sup>98</sup>

This type of circular reasoning and expectation bias pervaded Cooper's testimony and tainted his investigation:

Scott: Did you determine whether or not any of the couches in that living room had polyester in them?<sup>99</sup>  
Cooper: Sir, what I found in that house- no.  
Scott: You didn't?  
Cooper: I didn't go into the couch about- I'm sure most of your furniture has polyester. That's the normal material they use in furniture. But what I'm trying to tell you is, I found other significant evidence in there. Now, if I didn't find this other significant evidence, I would have done a little bit more research and made sure I didn't do a false indicator with the couch burning or the chair burning.<sup>100</sup>

For the sake of organizational simplicity, the CRU's analysis of each piece of evidence Cooper extolled is broken into sections below.

## 1. The Pour Pattern

Among the most incriminating pieces of evidence both Agent Cooper and Investigator Porter identified was a "pour pattern," or an irregular charring pattern believed to be created by

<sup>98</sup> Trial 2 transcript, p. 833.

<sup>99</sup> Melted polyester from furniture has been known to drip and create false indicators of pour pattern.  
<sup>100</sup> Trial 2 transcript, p. 120.

the use of a liquid accelerant, caused by slow burning speed and high heat. At the time of this

fire, few alternate causes for these patterns were recognized. In modern fire investigation, pour pattern identification by visual observation alone has been entirely debunked. In 1992, though, belief in the probative value of visual pour pattern identification still had a stranglehold on the profession. At trial, Cooper placed tremendous weight on the existence of this pour pattern,

stating:

This is not a spill. This is a pour and it was deliberately poured to get the fire going from the living room to the back of the house... My conclusions, looking at the physical evidence on that floor, that it was deliberately poured on that living room floor to start a fire.<sup>101</sup>

Both trial records are replete with similar assertions:

Galloway: Okay. I still do not see the [pour] pattern that you're talking about. Cooper: I'll have to admit it's hard to see it with these photographs and slides... It is hard. But I can testify that my eyes saw a pour pattern on that floor.<sup>102</sup> Cooper: This is the area where the fire started in the living room, and there were signs that as a pour pattern that somebody deliberately poured a liquid accelerant on the floor.<sup>103</sup>

Cooper: I want to give the benefit of the doubt to whoever is responsible for this fire. But my experience and my conclusion is, and I can't walk away from it, it keeps on coming back, that there's the pour pattern in the living room.<sup>104</sup>

Scott: Mr. Cooper, I want to just concentrate on the origin of the fire in the living room. The fact that you saw what you described as a pour pattern in the living

room. Cooper: No, sir. You're trying to get me to testify and get hung up on that living room pour pattern. I've told you before, Mr. Scott, I just don't do that. I have to take all the physical evidence and I have to put that puzzle together, Mr. Scott. And that's where I can honestly raise my right hand and under the oath say that fire was set, Mr. Scott. Now, you keep on going back to the living room, that pour pattern. **If you go back and probably review my original testimony, that pour pattern doesn't stick out significantly.**<sup>105</sup>

Scott: Now, you described what you considered to be a pour pattern, which is that area that you have right there in your diagram. Cooper: Yes, sir.

<sup>101</sup> Trial 2 transcript, pp. 527-28.  
<sup>102</sup> Trial 1 transcript, pp. 522-24.  
<sup>103</sup> Trial 1 transcript, p. 486.  
<sup>104</sup> Trial 1 transcript, p. 533.  
<sup>105</sup> Trial 2 transcript, p. 132.

Scott: Yes, sir. That area right there, as being a pour pattern. What is your scientific basis for that?

Cooper: In reference to recognizing what radiant heat is, which was in front of the door right here, coming in. There is some other radiant heat up in here. This was irregular. And again looking at the behavior of the fire and myself collecting, seeing, a V-pattern<sup>106</sup> on the baseboard, and everything. **This stood out. And, from my experience, training, this is a pour pattern.**<sup>107</sup> I have set fires, Mr. Scott, pouring things. I have spill things, to see the difference in an accidental spill and a deliberate pour. I have talked to other investigators, where they call radiant heat arson. They call it a pour pattern. **Through my training, I can make that distinction from pour pattern versus radiant heat.**

Cooper: I don't need FBI, Mr. Scott, lab, to tell me that's a pour pattern. **Through my observations and through my training, I am telling you, that's a pour pattern.**

Scott: Did you take any samples from that pour pattern, sir?  
Cooper: No, sir.<sup>108</sup>

Cooper did not record his methodology with respect to how he knew the pour pattern was, in fact, a pour pattern. When questioned regarding the variables he considered to rule out a false indicator of pour pattern, he was evasive, unclear, and made statements signaling he was unaware of recent scientific developments.

Cooper believed he could rely solely on his training in staging accelerant fires and his investigative experience to identify a pour pattern. However, pour patterns are far from

distinctive and current fire investigation standards make clear that visual inspection alone cannot determine a pattern to be indicative of an intentional pour. All other possible variables that can create a similar pattern, such as flashover, ventilation, furniture, flooring, and other materials in the room where the fire burned must be thoroughly considered.

Flashover, or full room involvement, is defined by NFPA 921 as "[a] transition phase in the development of a compartment fire in which surfaces exposed to thermal radiation reach ignition temperature more or less simultaneously and fire spreads rapidly throughout the space,

<sup>106</sup> V-pattern analysis is used in determining origin because it may indicate the speed of the fire and the heat intensity at which a fire burned. V-patterns can be useful in determining where accelerants may have been involved but only when other factors that can also impact heat intensity and burning are considered, such as ventilation, which was not thoroughly studied until the late 2000s, far after the second trial took place.

<sup>107</sup> See Gorbett et al., *supra* note 97 (Marked Exhibit M); See also J.M. Hoffman et al., *Full Scale Tests of Television Sets and Electronic Appliances*, FIRE TECHNOLOGY 39, 207-24 (2003); International Symposium on Fire Investigations and Technology, Greg Gorbett et al., *Full-Scale Room Burn Pattern Study* (2006); International Symposium on Fire Investigations and Technology, Greg Gorbett et al., *Fire Patterns with Low Heat Release Rate Initial Fuels* (2013).

<sup>108</sup> Trial 2 transcript, pp. 829-31.



109 NFPA 921.  
 110 Lentini report, pp. 15-16 (Marked Exhibit L).  
 111 Bayne report (marked Exhibit D); Beyler report (Marked Exhibit E); Lentini report (Marked Exhibit L).  
 112 Beyler report, p. 7 (citing NFPA 921 § 6.3.7.8) (Marked Exhibit E).  
 113 Trial 1 transcript, p. 510.  
 114 Beyler report, p. 8 (Marked Exhibit E).  
 115 Gorbett et al., *supra* note 97 (Marked Exhibit M); International Symposium on Fire Investigations and  
 Technology, Greg Gorbett et al., *Use of Damage in Fire Investigation: A Review of Fire Patterns Analysis, Research  
 and Future Direction* (2015).  
 116 Beyler report, p. 7 (Marked Exhibit E).

resulting in full room involvement or total involvement of the compartment or the enclosed space.<sup>109</sup> This phenomenon occurs when gases in the fire environment reach a temperature of approximately 1,100-1,200°F. At this point, any unburned materials within the room will burn near ventilation openings, such as open doors and windows.<sup>110</sup> There is full consensus among experts who have examined this case that the fire did reach the point of flashover.<sup>111</sup> Since 1992, full room involvement has been shown to naturally produce irregular burning patterns that closely resemble pour patterns.<sup>112</sup> It is therefore critically important in modern fire investigation that flashover be considered when analyzing irregular burning patterns.

In the first trial, Cooper did not mention considering or ruling out flashover or any other pertinent variables. Broad professional acceptance related to burn patterns did not even exist for common false indicators such as flashover and ventilation, and data examining these phenomena were scant and buried in larger studies. In the second trial, Cooper only vaguely mentioned considering and dismissing flashover as a variable. Of course, he would not have considered more recently studied and accepted variables such as ventilation because the research didn't then exist.

Cooper was also flatly incorrect in his statement that he could visually differentiate between radiant heat and a pour pattern. Specifically, Cooper was mistaken that "radiant heat is different from a pour pattern because radiant heat is going to be a uniform even burn."<sup>113</sup> Pour patterns and patterns produced by radiant heat are not always distinguishable.<sup>114</sup> Numerous studies have "demonstrated that the following causes could result in damage similar to irregular floor patterns: fires from interstitial space below the floor decking, melting plastics, draperies, furniture items, ventilation path and radiant heat from fully developed fires."<sup>115</sup> While an ignitable liquid will likely create a pour pattern in floor burning, similar patterns can occur absent an accelerant in fires that reach the point of flashover.<sup>116</sup> Every expert who has weighed in on this case following the second trial has determined that the fire in the living room reached a

<sup>117</sup> See Lentini report (Marked Exhibit L); Beyler report (Marked Exhibit E); Ashby report (Marked Exhibit N); DeHaan report (Marked Exhibit F); Bayne report (Marked Exhibit D).  
<sup>118</sup> Lentini report, p. 13 (Marked Exhibit L).  
<sup>119</sup> See Lentini report, p. 19 (Marked Exhibit L); see also Beyler report (Marked Exhibit E); Ashby report (Marked Exhibit N); DeHaan report (Marked Exhibit F); Bayne report (Marked Exhibit D).  
<sup>120</sup> NFPA 921 § 4.17.7.2: Irregular Patterns.  
<sup>121</sup> NFPA 921 § 6.17.8.2.5.

Thus, Cooper's claim that he could visually identify a pour pattern does not pass modern investigative muster. At both trials, Cooper conclusively used the term "pour pattern," rather than burn pattern, to suggest its existence showed intent. But by his own admission, Cooper's logic on this question was circular: the supposed pour pattern only became suspicious when interpreted in light of various other pieces of evidence, which in turn would only be suspicious if the identification of pour pattern (as proof of arson) was accurate. The CRU believes it is likely that both expectation and confirmation bias played a large role in Cooper's treatment of the burn pattern. Cooper's overconfidence in his own observational abilities even led him to believe that he could, with

The term *pour pattern* implies that a liquid has been poured or otherwise distributed, and therefore, is demonstrative of an intentional act. Because fire patterns resulting from burning ignitable liquids are not visually unique, the use of the term *pour pattern* and reference to the nature of the pattern should be avoided. The correct term for this fire pattern is an *irregularly shaped fire pattern*. The presence of an ignitable liquid should be confirmed by laboratory analysis. **The determination of the nature of an irregular pattern should not be made by visual interpretation of the pattern alone.**<sup>121</sup>

NFPA 921 even recommends against using the term "pour pattern" because such a pattern is not unique to ignitable liquid-driven fires:

Irregular, curved, or 'pool-shaped' patterns on floors and floor coverings should not be identified as resulting from ignitable liquids on the basis of observation of the shape alone. In cases of full room involvement, patterns similar in appearance to ignitable liquid burn patterns can be produced when no ignitable liquid is present."<sup>120</sup>

The long-held belief among fire investigators that they could visually identify a pour pattern and eliminate other causes has been thoroughly dismissed as myth.<sup>119</sup> NFPA 921 warns:

state of flashover.<sup>117</sup> In the 2003 trial, Cooper claimed to have considered this variable in his assessment, although he would not have known to do so in 1992 because such a phenomenon was not scientifically demonstrated to create false pour patterns until 1997.<sup>118</sup>

precision and solely through observational powers, discern between an accidental spill and an intentional one:

Galloway: Okay. Well, if there's five gallons of kerosene just like that can in the kitchen, if there's another one like it in the living room, and somehow a fire gets started by a cigarette, or whatever, and that can melt and it goes all over the carpet, won't it have exactly the same type of pattern that you're talking about?

Cooper: No, sir.

Galloway: Why not?

Cooper: It's going to be different.<sup>122</sup>

If Cooper could indeed tell the difference between accidental and intentional pours solely by looking at floor char patterns, he would have possessed a skill not recognized even in modern fire science literature. This type of visual investigative procedure has been studied scientifically and debunked. Daniel Heenan (2010) demonstrated that just 180 seconds after flashover, fire investigators identify the correct quadrant of origin no better than random chance (25% accuracy).<sup>123</sup> It is therefore highly unlikely that Cooper's visual analysis of the scene yielded reliable conclusions since the living room was fully involved for considerably more than 180 seconds.

Furthermore, the field of fire science is continuously evolving. In previous post-conviction proceedings in this case, the Court determined insufficient new scientific evidence existed to justify reversal. The CRU disagrees with this finding and believes that fire science pertinent to and probative of this case underwent fundamental change following the second trial. Regardless, there is a considerable body of research that has developed as recently as 2019 showing the effects of ventilation on fire burn patterns during flashover, as well as the implications for origin determination under such conditions.<sup>124</sup> This is yet another critical source of new scientific evidence, unavailable to Garrett at the time of his second trial, raising significant doubt as to Cooper's investigation and proof of Garrett's guilt.

A 2019 study, funded by the Department of Justice, showed that full room involvement fires burn hotter and longer near sources of oxygen, including open doors and broken windows.

<sup>122</sup> Trial 1 transcript, p. 526

<sup>123</sup> Presentation to the California Conference of Arson Investigators, Daniel Heenan, *History of the Post-Flashover Ventilation Study* (2010).

<sup>124</sup> See Steven W. Carman, *The Impact of Ventilation in Fire Investigation* (2012) (Marked Exhibit K); Steven W. Carman, *Improving the Understanding of Post-Flashover Fire Behavior* (2008) (Marked Exhibit O).

Cooper's report underscores the extent to which he failed to accurately document the scene and the potential impact on his investigation and, later, his testimony. In his report, Cooper noted that the wind was blowing "W 3mph" at the time of the fire.<sup>130</sup> This means the wind would have been blowing perpendicularly to the face of the house, and directly into the front door and broken windows. Cooper, however, mislabeled north on his diagram of the house by approximately 45 degrees, suggesting he underestimated the oxygen load near the points of deepest burning.

Cooper's testimony and terminology demonstrated he did not consider ventilation with respect to the identification of a pour pattern. While Cooper of course understood that the open front door was "drafting the fire,"<sup>131</sup> his analysis regarding the impact of the oxygen entering through the front door on the char pattern was absent and lacked the benefit of modern data:

Galloway: Over there you said that the pour pattern was kind of in the center of the room somewhere, and I'm kind of vague on it. What I see- let me get out of the jury's way- is that **the fire was more concentrated right here by the door where it could get more oxygen**, naturally, I guess, than it is anywhere else that you can see in the picture.

Cooper: This right here, what we're seeing, is going to be contributed- we're standing near the doorway- this is radiant heat. And the reason- and it's hard to make a, I guess, a separation from a pour pattern and radiant heat like this. But a lot of investigators will say it's a pour pattern but it's caused by radiant. And what happens is they fail to understand what radiant heat does. Radiant heat is going to have a uniform even burning on that floor surface. A pour pattern is going to have an irregular and this does not show it up in here.<sup>132</sup>

Cooper's belief that radiant heat would cause a uniform burn pattern has been thoroughly discredited by the fire science community.<sup>133</sup> Galloway's question regarding oxygen coming through the front door was prescient, and Cooper's evasive response demonstrated that he did not know or fully understand the impact ventilation would have on the fire environment and char patterns. The CRU therefore submits that because Cooper's investigation could not have meaningfully weighed the effects of ventilation and air flow given available data, his determination of the point of origin and his expert opinion that the charring was a pour pattern are unreliable.

<sup>130</sup> Cooper report, p. 2 (Marked Exhibit I).  
<sup>131</sup> Trial 1 transcript, p. 486.  
<sup>132</sup> Trial 1 transcript, p. 523.  
<sup>133</sup> Beyler report, p. 8 (Marked Exhibit E).

Cooper relied on his own perception of the scene, coupled with outdated and discredited investigative practices, to reach his conclusion regarding the pour pattern. There is no scientific basis for believing that Cooper observed a pour pattern indicating the intentional use of kerosene in this case.<sup>134</sup> There is, instead, affirmative evidence suggesting Cooper was mistaken.

Investigator Porter took samples of the floor itself where the pattern existed and the area of the floor under the supposed pour pattern, more or less in line with the recommendations of NFPA 921. Porter's samples all returned negative results for the presence of kerosene-range distillate.<sup>135</sup> Cooper also took samples. He collected a pile of debris from the floor and placed it into the same sealed evidence container as a sample he dug from behind the baseboard. These samples, which somehow included cardboard collected from a room that had reached at least 1,100°F, later tested positive for kerosene-range distillate. Every report from those who walked through the scene described the house as being filled with water, potentially mixed with accelerant-type fluid. It is undisputed that firefighters, wearing department-issued boots, walked throughout the house, as did investigators and police officers. The scene was sprayed with thousands of gallons of water from fire hoses, and even Cooper acknowledged the possibility that ignitable liquid could have mixed with the standing water. Cooper dismissed the possibility of sample contamination by testifying no one walked "on the baseboard,"<sup>136</sup> but saw no issue in placing debris collected from in front of the baseboard into the same container as his baseboard sample, making it impossible to say whether it was the protected area behind the baseboard or the debris from the floor that tested positive. It is also difficult to reconcile Porter's negative results, which better conformed to modern investigative practices and were taken closer in time to the fire, with Cooper's positive results.

Given the weight of the evidence suggesting fire investigation has pivoted to a scientific approach, and given Cooper's perfunctory methodology and suspect evidence collection, the CRU places no weight on Cooper's finding that there was a pour pattern in the living room.

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<sup>134</sup> Beyler report, p. 8 (Marked Exhibit E).  
<sup>135</sup> TBI Official Laboratory Report 04/08/92 (Marked Exhibit J).  
<sup>136</sup> Trial 2 transcript, p. 832.

## 2. The Kerosene Can

A plastic five-gallon container discovered in the kitchen, right outside the door of the utility room and next to the comforter, and a kerosene heater in the bedroom were the only sources of kerosene ever identified in the house. The can was at least partly full of kerosene, and the top had begun to fail in the high heat environment of the fire.

Cooper asserted the purpose of the can was to intensify the fire.<sup>137</sup> He explained: This becomes a really crucial factor in the fire. If that fire continued to burn and all of that stuff inside, once that oxygen got back in there, it would have ignited the combustible materials and you would even have a bigger fire.<sup>138</sup>



Despite Cooper's certainty that the purpose of the can was to fuel load the rear of the house, he provided no basis for this belief.

Additionally, Cooper gave conflicting testimony regarding whether the can leaked when he inspected it. At one point, Cooper said: "I did pick up the can to see if there were any leaks in

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<sup>137</sup> There was no evidence to justify Cooper's claim of the can's "purpose." Further, it would seem more plausible, in a fire driven by intentionally poured ignitable liquid, that to intensify the fire, one would distribute all the available accelerant rather than leave it in a closed container.

<sup>138</sup> Trial 1 transcript, p. 502.

the can and there were no leaks in the can. When I picked it up, you know, it was just squirting out. There was no leak.”<sup>139</sup> This statement is contradictory on its face.

The status of the kerosene can being of the utmost importance, the imprecision of Cooper’s statements and his failure to better document the state of the can has frustrated efforts to determine the condition of the sides and bottom. Further, kerosene floats on water.<sup>140</sup> Any firefighting water that entered the lid as it began to fail would have sunk to the bottom of the can, meaning that it was impossible to know the true ratio of water to kerosene. In theory, the can could have been almost entirely full of water, with only a thin layer of kerosene floating at the top. The lack of care related to the kerosene can became important in evaluating another piece of evidence critical to the State’s case: the comforter, discussed below in section 3, *infra*. Once again, Cooper’s failure to document or perform testing demonstrated the lack of scientific rigor to which he subjected his assumptions.

It may seem suspicious to find a kerosene can at the scene of a fatal fire, but Garrett and Ms. Lance relied on an Aladdin kerosene heater to heat their home. Cooper was aware of this: “I understand that it was a normal practice for Garrett and Ms. Lance to store five gallons of kerosene back there near the refrigerator.”<sup>141</sup> At no point did Cooper indicate any independent reason to consider the kerosene canister suspicious without making unsupported or circular jumps in logic. Garrett’s clothing tested negative for the presence of kerosene-range distillate, the condition of the can was poorly documented and confusingly described at trial, there is no way to know the concentration of kerosene and water in the canister, and the kerosene served a vital day-to-day function in the home, especially in February.<sup>142</sup>

The CRU therefore views the kerosene can as a neutral piece of evidence. Its presence and location at the scene could circumstantially point to Garrett’s guilt, but there are benign explanations that fully address each point Cooper raised, and there is no compelling reason to privilege Cooper’s assessment over others.

Finally, Cooper remarked several times at trial that the scene reeked of kerosene:

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<sup>139</sup> Trial 1 transcript, p. 498.  
<sup>140</sup> Beyler report, p. 8 (Marked Exhibit E).  
<sup>141</sup> Trial 1 transcript, p. 525.  
<sup>142</sup> TBI Official Laboratory Report 04/08/92 (Marked Exhibit J); see also Trial 1 transcript, pp. 435-36.

Cooper: My problem with this particular fire at this residence is the volume of the liquid that was on the floor. I have really not experienced a fire that contained that much liquid on the floor as this one.<sup>143</sup>

Cooper: I realized I had a problem there on the floor. I was actually getting a headache from the gas, from the kerosene. I had to go outside and get some fresh air, Mr. Scott.  
Scott: Is there any difference in the smell of a cup of kerosene and a quart of kerosene?  
Cooper: Sir, I don't know. I am just telling you right now that that floor, that bedspread, was saturated with kerosene.<sup>144</sup>

The question from Mr. Scott regarding smell was an insightful one. As fire investigators today recognize, the only indicator available for the quantity of an ignitable liquid is smell.<sup>145</sup> With kerosene, however, the smell is related to evaporation rates, which scale with area and not with volume of liquid. Since kerosene floats and spreads thinly on water, very large surface areas are created with very small volumes, and the kerosene can be transported throughout the home on the pooled firefighting water.<sup>146</sup> In this case, thousands of gallons of firefighting water had been pumped into the house, both as part of the initial fire suppression and as part of investigator Porter's investigation. A relatively small amount of kerosene, therefore, could have produced a powerful smell within the house. Indeed, this explains how the only source of kerosene discovered in the house - the canister in the kitchen - could alone have been responsible for the overpowering smell Cooper encountered.<sup>147</sup>

Since the leaky nature of the can was never adequately documented, the CRU is left to speculate on this point. Nevertheless, it seems reasonable to conclude that, at the very least, there is cause to doubt Cooper's smell-based assessment of the kerosene load in the house. Furthermore, there is no objective basis to credit Cooper's assertion that the kerosene load in this case was greater than any of his previous cases; modern practices suggest that this was simply not a determination Cooper could have reliably made.

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<sup>143</sup> Trial 1 transcript, p. 524.  
<sup>144</sup> Trial 2 transcript, p. 856.

<sup>145</sup> Beyler report, p. 8 (Marked Exhibit E).  
<sup>146</sup> Beyler report, p. 8 (Marked Exhibit E).

<sup>147</sup> Despite Cooper's certainty as to his ability to determine volume of kerosene by smell, even accelerant detection canines often get this wrong. See NFA 921 at 178: "[r]esearch has shown that canines have responded or have been alerted to pyrolysis products that are not produced by an ignitable liquid and have not always responded when an ignitable liquid accelerant was known to be present".



### 3. The Comforter

Cooper characterized a comforter in the kitchen as a "trailer" designed to spread fire from the point of origin in the living room to the utility room. The comforter was pushed slightly underneath the refrigerator, next to the kerosene can and outside of the utility room door. Cooper described the comforter as being "saturated" or "soaked" with kerosene multiple times during his testimony, using the "saturation" to suggest evidence of intent:

Cooper: This thing was saturated with this liquid that was later identified as similar to kerosene.<sup>148</sup>

Cooper: I'm satisfied, with my professional opinion, that it was placed there. And due to the saturation of the liquid, identified as in the range of kerosene.<sup>149</sup>

Cooper: Again, it was stuck under the refrigerator and it was saturated with kerosene.<sup>150</sup>

Seaborg: Okay. You say saturation. How could you tell by looking at it? Cooper: Well, in the living room I couldn't tell. The saturation was in the kitchen, with the bedspread, the bed covering.<sup>151</sup>

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<sup>148</sup> Trial 1 transcript, p. 498.  
<sup>149</sup> Trial 1 transcript, p. 524.  
<sup>150</sup> Trial 1 transcript, p. 533.  
<sup>151</sup> Trial 2 transcript, p. 780.

<sup>152</sup> Trial I transcript, p. 497.  
<sup>153</sup> Lentini report, p. 29 (Marked Exhibit L).

The CRU's issues with the comforter are myriad. First and foremost, the comforter was never preserved as part of the investigation, making further analysis impossible. Cooper and Detective Miller simply "cut a portion off of it" to send to the TBI lab before discarding the remainder of the comforter outside.<sup>152</sup> Preliminarily, this should have prevented Cooper from ever testifying that the comforter was "saturated" with kerosene since only one piece of the comforter was ever analyzed. Furthermore, the sensitivity of TBI's testing instruments at the time would have returned a positive result had as little as 1/10 of a single drop of kerosene been present in the sample.<sup>153</sup> A single drop spread over ten places could have produced ten positive results.



In this case there was no measurement of the amount of kerosene found on the comforter.

No analysis exists for "saturation," and a test for the presence of an ignitable liquid will register

binarily as positive or negative. It is unclear why no defense attorney, from either trial,

challenged Cooper's prejudicial and inartful use of the words "saturated" and "soaked" to

describe the amount of kerosene on the comforter.

Second, Cooper admitted the comforter was surrounded by standing water on the floor.

Firefighters had deployed large amounts of water through several fire hoses into the home, and it

is impossible to know how much of the liquid on the comforter was water or kerosene. Agent

Sandra Poltorak of the FBI, who tested the various samples collected from the house, testified to

that effect at the first trial:

Galloway: Okay, if there were any water in the [evidence collection] can, H<sub>2</sub>O, it

would not show up on your tests, would it, since you're testing for hydrocarbons?

Poltorak: No, it would not.

Galloway: Okay, so you don't know if there was any water in the can [containing

the bedspread sample], or not?

Poltorak: No, sir.<sup>154</sup>

Third, Cooper and Detective Roland both testified to having stepped on and even tripped

over the comforter, wearing the same shoes in which they walked through the living room to the

kitchen.<sup>155</sup> Finally, even had the comforter been saturated with kerosene, this still would not

incriminate Garrett since the comforter sat immediately next to the falling kerosene can

identified in the kitchen. Any leaked or displaced kerosene escaping from the canister could

easily have splashed on the comforter, a perfectly innocuous explanation that Cooper failed to

eliminate.

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<sup>154</sup> Trial 1 transcript, pp. 435-36.  
<sup>155</sup> Trial 1 transcript, p. 496.

This issue is compounded considerably by Cooper's own admission that he may have

contaminated the comforter with kerosene while examining the canister. When asked at the first

trial whether any kerosene escaped the container while he was examining it, Cooper

acknowledged the possibility that some kerosene may have fallen out:

Galloway: Okay. But in your opinion none ran out?

Cooper: In my opinion none ran out to be a contributor or significant to affect that  
bed material.<sup>156</sup>

This statement is concerning given that as little as 1/10 of a drop would have been a

"contributor" and would have been "significant to affect" the TBI's test results. Cooper admitted

at the second trial that kerosene did, in fact, run out of the container when he picked it up:

Scott: When you picked it up, though, some came out, didn't it?

Cooper: Yes, sir. Not from the bottom and not from the side.

Scott: But some came out, though?

Cooper: A little came out, sir.

Scott: Where did it go?

Cooper: It probably run over the sides. Mr. Scott, I was very careful on this.<sup>157</sup>

This gives two plausible explanations as to how the kerosene ended up on the comforter,

neither of which can be eliminated due to Cooper's investigative failures in preserving evidence.

First, the melting at the top of the can makes it plausible the kerosene leaked during the fire,

mixed with the firefighting water, and was absorbed into the comforter. Second, it is likely that

Cooper himself contaminated the comforter with kerosene while examining the canister.

Cooper's testimony that he and other investigators were "tripping over" the comforter during

their work at the scene only strengthens this possibility.<sup>158</sup>

Finally, when asked why the comforter did not ignite, Cooper again contradicted his own

theory by asserting the fire was high burning:

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<sup>156</sup> Trial 1 transcript, p. 553.  
<sup>157</sup> Trial 2 transcript, p. 820.  
<sup>158</sup> Trial 1 transcript, p. 496.

Galloway: Okay. If the bedspread is so saturated why did it not ignite, why did it not burn, or did it?  
Cooper: Good question, sir. And again, the reason why, the fire was high, because the fire was down on the floor... There's no low burning... Again, fire is high, fire is not low.<sup>159</sup>

Here, Cooper demonstrated he had no explanation as to why the comforter did not ignite if it was so saturated with kerosene and intended to act as a trailer. Under Cooper's theory, the fire would have been low-burning due to the accelerant on the floor. In the above testimony, he appeared to be confused about his own theory as he attempted to explain that the fire was high-burning, which would not be consistent with an ignitable liquid-driven fire.

There is also no reason to believe the comforter was in the kitchen during the fire itself. Investigator Porter's initial diagram of the scene, made 10-12 hours before Cooper and Detective Roland arrived, did not note the existence of the comforter.<sup>160</sup> At the second trial, having been called by the defense, Porter testified that:

Scott: If you had seen it there, and it soaked with kerosene, would you have put it in your report?  
Porter: I probably- yes, sir.  
Scott: Is it in your diagram?  
Porter: (Viewing document) No, sir.<sup>161</sup>

Similarly, James Goodman, a police officer with the MNPD Identification Section, was assigned the narrow task of processing the scene and producing a diagram of the structure.<sup>162</sup> Goodman arrived at 6:20 a.m. on the day of the incident.<sup>163</sup> Goodman's diagram also did not

note the existence of the comforter. Goodman testified at the second trial:  
Scott: Okay. So there is no bedspread here in front of the refrigerator?  
Goodman: Not that I recall, no, sir.  
Scott: If you had noted that, would you have put it in there?

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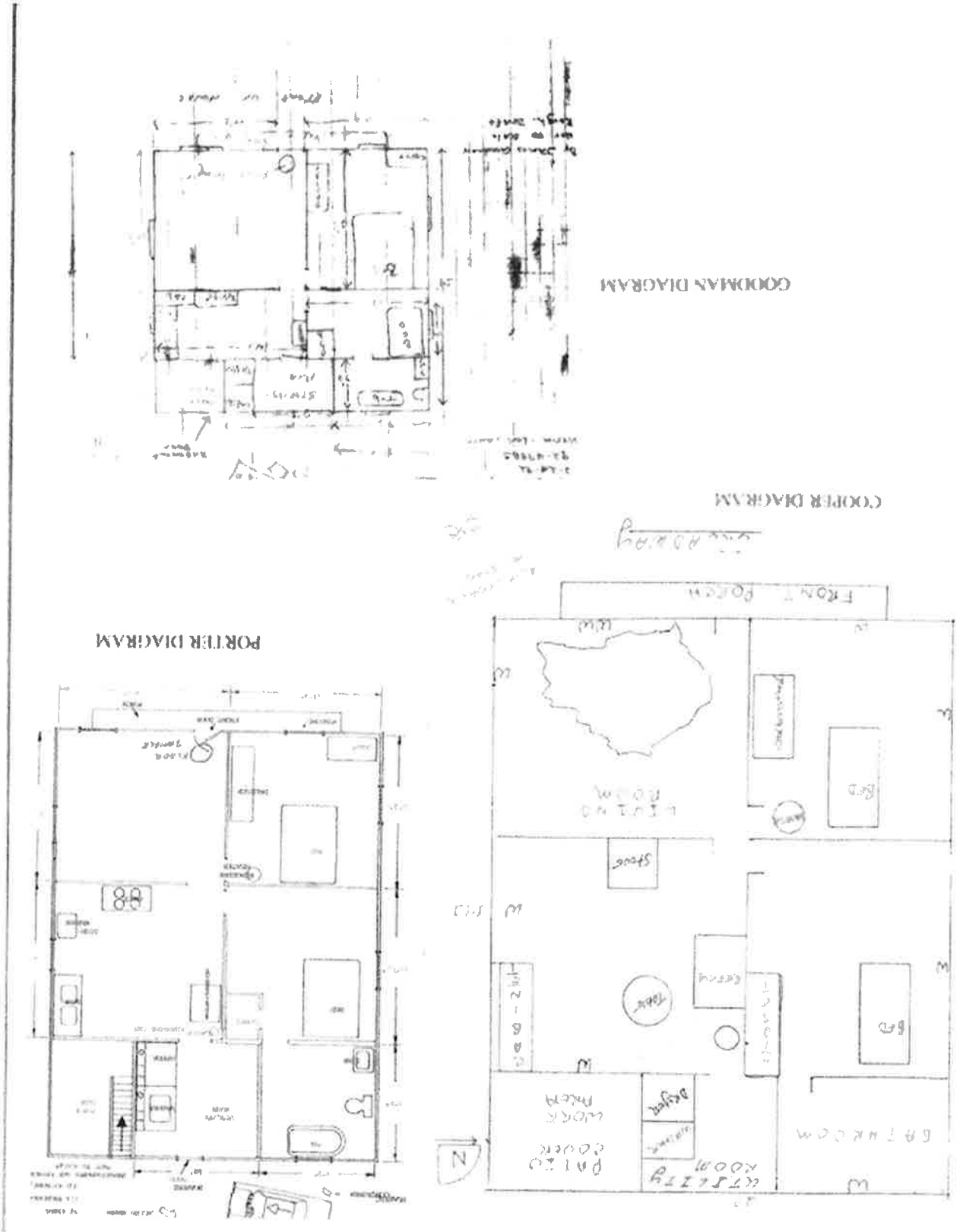
<sup>159</sup> Trial 1 transcript, p. 555.

<sup>160</sup> Porter diagram (Marked Exhibit A).

<sup>161</sup> Trial 2 transcript, p. 903.

<sup>162</sup> Goodman Diagram (Marked Exhibit Q).

<sup>163</sup> Trial 2 transcript, p. 965.



Goodman: I would have noted it on my diagram, yes, sir. 164

Cooper argued to the jury that the state of the utility room, particularly the smoke alarm found sitting on the washer and the "fuel load" piled on top of Ms. Lance, was abnormal and indicative of foul play.<sup>166</sup> As Cooper testified, "[i]s it normal for somebody to run back there, close that door and get in the corner and pile themselves up with furniture, take the smoke alarm and take the battery out[?]"<sup>167</sup> This demonstrates, once again, that Cooper acted as a criminal investigator rather than a fire investigator and made assessments outside his area of qualification.

#### 4. The Utility Room

Innocuous explanations abound as to how the comforter came to be under the refrigerator: fire hoses, firefighters crawling around in high-heat, low visibility conditions, furniture removal efforts, or an investigator's misplaced boot could have pushed the comforter into the kitchen, and at no point did Cooper offer independent justification as to why he believed the comforter to be a trailer. In fact, Cooper testified that in previous investigations, he had found evidence "where the fire hose suppression just moved the evidence somewhere else."<sup>165</sup> This type of scene contamination may also provide an explanation as to how Cooper's floor samples tested positive for kerosene-range distillate when Porter's did not.

Given the failure to preserve the comforter, as well as the numerous sources of contamination, bias, and error, the CRU cannot credit conjecture that the comforter was intended to draw fire from the front of the house to the rear, which is its only evidentiary value.



<sup>168</sup> See Trial 2 transcript, p. 349-50; see also H.L. Mu et al., *Pre-evacuation Human Reactions in Fires: An Attribution Analysis Considering Psychological Process*, 52 *PROCEEDIA ENGINEERING* 290-96 (2013); Carol W. Runyan et al., *Risk Factors for Fatal Residential Fires*, 327 *NEW ENG. J. MED.* 859-863 (1992).

<sup>169</sup> H.L. Mu et al., *supra* note 168.

Contrary to Cooper's testimony, Garrett's account of Ms. Lance's behavior is generally consistent with fire victim behavior, particularly of someone under the influence of alcohol.<sup>168</sup> Ms. Lance had been burned severely and was inhaling noxious fumes and carbon monoxide, all of which have been known to produce irrational actions in fire victims. Hiding underneath or behind objects to block heat or avoid flames is a common behavior among fire victims as well.<sup>169</sup> Cooper's use of phrases such as "fuel load" and "combustible materials" was significantly





prejudicial, as Ms. Lance's body was covered with random, everyday objects stored in the utility

room.

Furthermore, there was no evidence to suggest Ms. Lance was forced into the utility

room. Ms. Lance died of smoke inhalation, indicating she was breathing in the utility room, and

there was no sign of struggle or physical altercation noted in Dr. Harlan's autopsy report.<sup>170</sup> The

door was not collected and was inadequately photographed, meaning it could not be analyzed for

evidence that Ms. Lance may have attempted to escape the utility room. Cooper's conclusion,

that Ms. Lance simply lay there after Garrett piled random objects on top of her, simply does not

conform to reality, nor is it clear how Cooper formulated this opinion given a complete lack of

evidentiary proof. The State's own witnesses testified that fire victims will often cover

themselves with items to shield their bodies from smoke and emanating heat.<sup>171</sup>

The smoke alarm, on its face, was a confounding piece of evidence for the CRU. FBI

Agent Poltorak reported identifying kerosene-range distillate on the smoke alarm and stated that

the smoke alarm operated when a battery was installed in the unit. Though Lentini's report

asserted that Agent Poltorak was uncertain if the distillate found on the smoke alarm could have

come from kerosene vapors or smoke deposition, the CRU finds this to be an overstatement.<sup>172</sup>

Poltorak admitted under cross examination that this might be a remote possibility, but was clear

that in her experience, she had never heard of such an occurrence. However, in the second trial,

when asked if the kerosene on the smoke alarm could have been there as many as two months

prior to the testing, Poltorak acknowledged "[testing] did reveal the petroleum distillate was

evaporated... It was weather; there was a time between the placement of accelerant and the

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<sup>170</sup> Harlan autopsy report (Marked Exhibit B).  
<sup>171</sup> Harlan autopsy report (Marked Exhibit B).  
<sup>172</sup> Lentini Report, p. 6 (Marked Exhibit I).

collection; the-subject to the fire and just subject to the air.”<sup>173</sup> This suggests that the kerosene

may have been on the smoke alarm for some time prior to the fire.

Given the chaotic nature of the fire environment and the subsequent haphazard

investigation, the CRU is confident in suggesting scene contamination as an additional

hypothesis to explain the positive result on the smoke alarm. Conversely, there is no evidence to

prove a malicious explanation for the presence of kerosene-range distillate on this item.

Therefore, the CRU is unwilling to characterize the smoke alarm as inculpatory. The issue arose

only briefly at trial, played a minor part in the State’s theory, and can be explained by the same

scene contamination the CRU suspects played a major role elsewhere in this case.

## **5. Was Ms. Lance Locked Inside the Utility Room?**

The most crucial piece of evidence throughout this case was the sliding latch fixed to the

exterior door frame of the utility room. Put simply, if the latch was intentionally closed during

the fire, prior to firefighters arriving, this case is closed: Garrett would have been the only person

able to latch the door with Ms. Lance inside, and there would be no rational explanation outside

of an intent to kill. Under the State’s theory, this latch would effectively have been the murder

weapon. Inexplicably, and despite the enormous significance that was attached to the latch at

trial, both Cooper and Detective Miller failed to preserve the latch and photographed it

minimally, if at all.<sup>174</sup>

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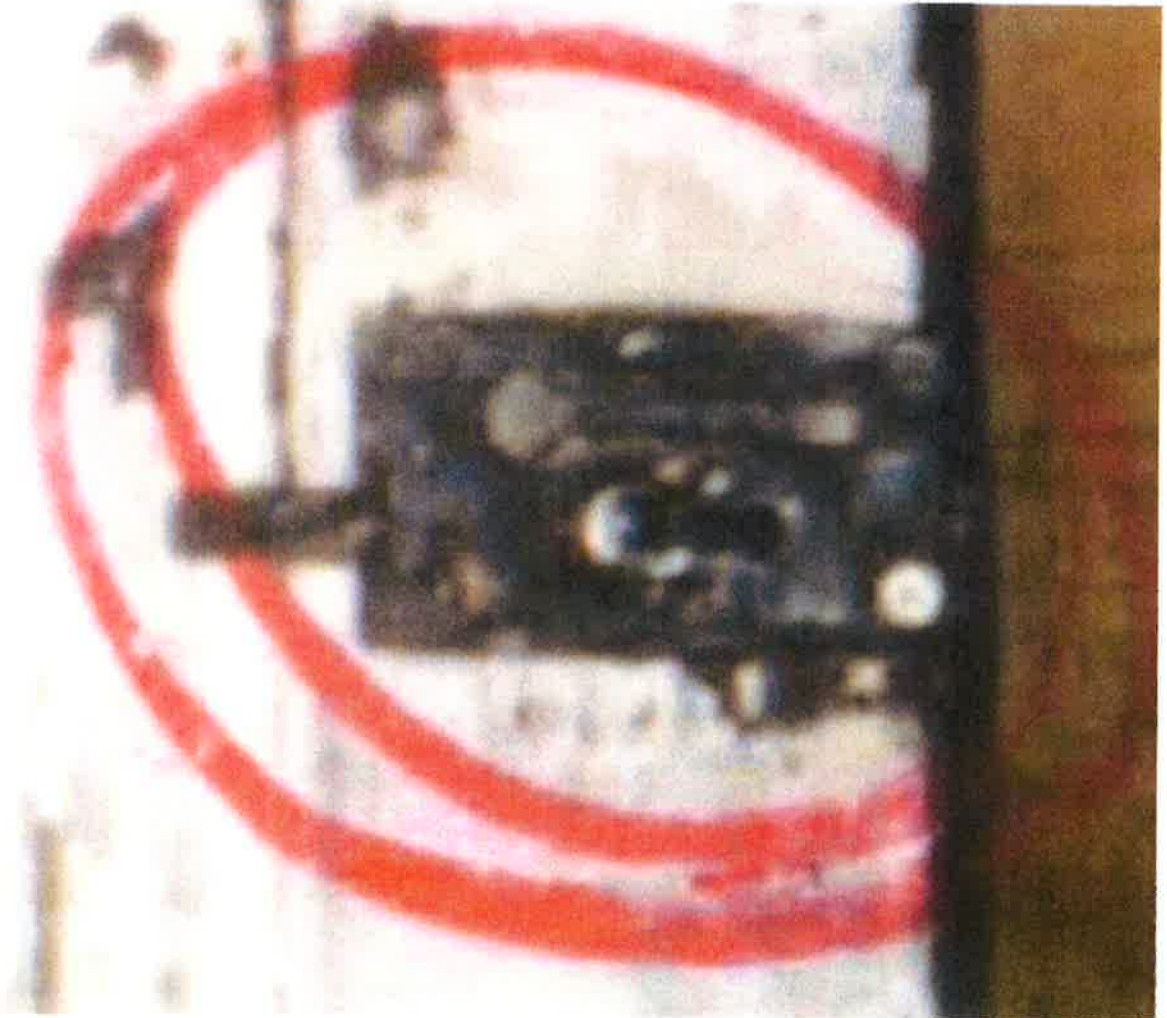
<sup>173</sup> Trial 2 transcript, p. 752.

<sup>174</sup> The record seems to indicate the only photos of the utility room door and lock were taken by Dr. Harlan but the CRU has been unable to confirm.

<sup>175</sup> Captain Otis Jenkins circled the latch on this photo in red ink while testifying on direct examination (Trial 1 transcript, p. 354). This photo is cropped and zoomed from a larger photo showing the utility room and the door; it is today the best available documentation of the latch.  
<sup>176</sup> Miller report, p. 5 (Marked Exhibit R). This report was withheld at discovery and was found to constitute a Brady violation that earned Garrett his second trial.

firefighters about the latch:

first trial that he did not know whether the door was latched and that he had not talked to investigators on the scene as being overly suspicious at the time. Cooper even admitted at the based on Miller's and Cooper's failure to preserve the latch, that the latch did not strike the entry into the utility room, told him that the door was not locked.<sup>176</sup> It is also reasonable to infer, In Detective Miller's report, he noted that Captain Jenkins, the firefighter who made



Zimmerman: Are there any mechanisms on that door that you found that can latch the door or close the door?  
Cooper: Yes, sir. You can see this latching system here, and Detective Miller and I were discussing that. And I told Detective Miller that the door was closed and I thought the door was locked, but the best person to answer that would be the fireman who actually made entry into that room, that utility room... I really don't know until you talk to the firefighter. Because he'd be the only person that could really answer that because he made entry in there.<sup>177</sup>

As the Tennessee Criminal Court of Appeals held in 2001, the first trial was defective because ADA John Zimmerman failed to provide Detective Miller's report to the defense.<sup>178</sup> This report, drafted close in time to his investigation and the fire itself, stated unequivocally that Captain Jenkins told Detective Miller the utility room door was not locked. This report was therefore unavailable for impeachment use at the first trial during Jenkins's testimony or for refreshing the recollection of Detective Miller.  
It goes without saying that the first trial would have been the best opportunity for a jury to make a determination as to the reliability of witness testimony and to inspect available evidence. All witness recollections were closer in time to the fire and uncontaminated by the passage of time, and evidence was available for inspection that had been lost by the second trial. Because of the failure to disclose critical *Brady* material, Garrett was not granted a fair first trial and we will never know what the decision of the jury may have been had this not occurred. Between the two trials, Cooper and Miller transformed from not offering conclusions about the status of the latch, as was their testimony in the first trial, to insisting the latch was closed at the second trial. In the intervening decade since the first trial, their testimony became perfectly aligned and accounted for critical discrepancies. During the second trial, for the first

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<sup>177</sup> Trial 1 transcript, p. 504.  
<sup>178</sup> *Garrett*, LEXIS 206 at \*36.

talk to the fire fighter, because he would be the only person that could really answer, because he made entry.”

Cooper: That's correct, sir. That's exactly why Captain Jenkins came back out, sir.

Scott: Well, now, this testimony was quite a bit after the event, Mr. Cooper.

Cooper: My testimony?

Scott: Yes, sir.

Cooper: Yes, sir, Yes, sir.

Scott: You testified at that proceeding-

Cooper: Mr. Scott, I clarified-

Scott: - you didn't know whether it was locked or not.

Cooper: Until- Mr. Scott, we examined the latch system. We asked Captain

Jenkins to come back out, and he came back out. He explained what he did and that confirmed our observations. I am testifying today the door was not locked

it was latched.<sup>183</sup>

Cooper later amended his narrative, stating he interviewed Captain Jenkins on a different

day:

Cooper: I just remember, sir, we- Detective Miller and I- he went in and I closed- we closed the door. And I worked the latch to see if it worked. That's all I did to that latch. That was my primary concern, was that latch working. And it was working. To let Detective Miller out I had to unlatch the door. I did not examine it anymore than that.

Scott: So you found out that night- Captain Jenkins told you that the door was locked. Is that what you're saying?

Cooper: No, sir. And I already testified I did not- I can't remember. I didn't

interview Captain Jenkins that night. I did interview him shortly after our fire scene. And he told me the door was latched not locked.

Scott: Could you have examined that door to see if there were striations in the

carbon buildup?

Cooper: Could I?

Scott: Yes.

Cooper: Probably. I didn't. Again, I wasn't focusing on that. I was just concerned if that latch was working, and how Ms. Lance went back-

Scott: It was your most important piece of evidence, wasn't it?

Cooper: No, sir. You know what the most critical piece of evidence- Mr. Scott-

is, how did Ms. Lance go back there and lock the door from the inside?

That's your significant piece of evidence, Mr. Scott. I don't care about the carbon on that latch.<sup>184</sup>

<sup>183</sup> Trial 2 transcript, p. 846.

<sup>184</sup> Trial 2 transcript, p. 872.

Captain Jenkins was inconsistent in his recall about the status of the lock and what actions he took to get the door open. After recounting the poor visibility and smoke-filled conditions he was dealing with during his search and rescue mission, Captain Jenkins described encountering the utility room door. He definitively testified the door was locked,<sup>185</sup> but also admitted “not knowing exactly or having perfect recall of what type of latch it was, just knowing that the door was locked and that I had to turn and move a knob to get the door open.”<sup>186</sup> It is undisputed that there was no knob on the door.

On direct examination, Captain Jenkins said several times he was certain the door was locked. However, upon cross examination, it became clear he did not recall how he opened the door. He testified he “pulled on the door, pulling, there was something on the door and it was locked, or it wouldn’t open.” He further explained that he either turned or pulled something so he “assumed the door was not jammed... had to do something to get it open,” and that it “came open fairly easily.”<sup>187</sup> He repeated that there was “something up there that I messed with that opened the door.”<sup>188</sup> He admitted it was improbable, but not impossible, that he himself hit the lock and latched it while tumbling in the dark with his thick gloves.<sup>189</sup>

According to Captain Jenkins’ own testimony at the second trial, he was operating in zero-visibility conditions while attempting to rescue Ms. Lance. Captain Jenkins continued to assert that he believed the door was latched, but he also could not rule out the possibility that it was simply jammed and that he could not see well enough in the smoke or feel well enough

<sup>185</sup> Trial 1 transcript, pp. 353, 356.

<sup>186</sup> Trial 1 transcript, p. 355.

<sup>187</sup> Trial 1 transcript, p. 358.

<sup>188</sup> Trial 1 transcript, p. 360.

<sup>189</sup> Trial 1 transcript, p. 359. The CRU was unable to obtain a firefighter’s glove from 1992 but was able to examine a modern firefighter’s search and rescue glove. The gloves are heavy, bulky, and severely limit dexterity and fine motor skills.

through his gloves to know what he did to the door.<sup>190</sup> Finally, Captain Jenkins had no

recollection of ever talking to Cooper.<sup>191</sup>

The most ardent proponent of the door being locked and its impact on this case was

always Cooper. His sole source of evidence was hearsay. This conversation with Jenkins, if it

occurred, took place away from the scene, several hours to several days after the fire. Jenkins

was a firefighter who, when perceiving the scene, was on a hero's mission to rescue a person

trapped in a fire. He was battling unspeakable conditions of a house filled with dark smoke and

intense heat while his oxygen supply ran critically low.<sup>192</sup> Despite the carbonization of the lock

being a testable element in answering the question of whether the door was latched, Cooper

dismissed available scientific methodology:

Cooper: I really don't care about that carbon on that latch. What I care about is

you actually have a fire fighter that told me that he went up there and the door

was latched, not locked. And he unlatched it to go in and rescue Ms. Lance.<sup>193</sup>

Cooper failed to preserve or analyze physical evidence on the latch and relied strictly on what he

claimed Captain Jenkins said about its status. Instead of taking actions in line with his role as a

fire investigator, such as analyzing the carbon deposits on the latch or drawing upon his

firefighting experience to assess the conditions in which Jenkins observed the latch, he simply

concluded the door was locked and made a culpability assessment based on that conclusion. As

the lead criminal investigator, Detective Miller was also negligent in his failure to collect or

document the door or latch.

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<sup>190</sup> Trial 2 transcript, p. 416.

<sup>191</sup> Trial 2 transcript, p. 407.

<sup>192</sup> Trial 2 transcript, p. 400. Jenkins ran out of oxygen and had to exit the house immediately after opening the door to the utility room and discovering Ms. Lance. He swapped his tank outside and returned to assist in extracting Ms.

<sup>193</sup> Trial 2 transcript, p. 875.

Dr. Candace Ashby, a certified fire scientist from Indiana, with the help of the Ruthertford

County, Tennessee Fire Department, conducted an experiment recreating the conditions of this

fire to test the hypothesis that the latch was in the locked position during this fire. Dr. Ashby

concluded in her report, based on the carbonization differences between a latch in an unlocked

position during the fire and a latch in a locked position, that the latch was in the unlocked

position during the fire.<sup>194</sup>



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<sup>194</sup> Ashby report and photos from her experiment. Dr. Ashby prepared a report with a full analysis of the relevant evidence in the case. She credited the findings of Lentini and Dr. Beyler reached the same conclusions as every other fire scientist or investigator who has reviewed the evidence (Marked Exhibit N).



While the CRU gives limited weight to the findings of Dr. Ashby's experiment given the lack of specificity regarding the conditions under which it was conducted, what the report does demonstrate is the testability of this hypothesis and how important it was for the latch to be preserved and documented. Once again, due to the inadequate investigation and poor evidence preservation, the CRU can give no probative weight to the status of this latch in assessing Garrett's culpability.

Evaluating Ms. Lance's skin burns was another available means to assess the hypothesis that Ms. Lance was locked in the room before the fire. Cooper failed to engage in this analysis. According to Stuart Bayne, a fire science expert with more than 38 years of experience:

The striking similarities between the two sets of burn patterns on Mr. Garrett and Ms. Lance point directly to the undeniable fact that both bodies were in the same location, at the same point in time, facing the same intensity of heat exposure, from approximately the same distance to the heat source, for approximately the same duration."<sup>195</sup>



Bayne illustrated his conclusion with the aid of a diagramming program, which he used to demonstrate how “matching, radiant burn patterns were imposed on the same body parts of two, separate human bodies.”<sup>196</sup> Viewing this evidence in conjunction with the testimony of Dr. Harlan, a report prepared by fire science expert John DeHaan,<sup>197</sup> and the burn diagrams of the bodies of both Ms. Lance and Garrett, the CRU finds a likelihood that Garrett and Ms. Lance suffered burns when they were together and exposed to the living room fire environment, which conforms to Garrett’s consistent account of what transpired.<sup>198</sup>

Other experts have similarly offered opinions that Ms. Lance’s burns could not have been sustained while she was in the utility room. As Beyler notes, Ms. Lance’s burns were on her hands, face, front of her neck, and on her left shoulder. The burns on her face, neck, and shoulder were highly directional.<sup>199</sup> In the absence of any flame in the utility room, there was no source of directional heating. Photographs of the room showed no melting of plastics, indicative of a modest thermal environment. With the heat greatest in the upper part of the room, a person exposed to such a thermal environment would naturally shelter in the lowest part of the room, normally in the fetal position, and exposing oneself to facial and front neck burns would not be expected. Thus, the directional burns to the face and neck front are not consistent with having been caused in the utility room. Conversely, the burns are consistent with exiting the bedroom into the living room and facing a growing fire in that room during her attempted escape from the fire.<sup>200</sup>

<sup>196</sup> Bayne report (Marked Exhibit D).

<sup>197</sup> DeHaan report (marked Exhibit F).

<sup>198</sup> Roland recorded interview; Beyler report, p. 11 (Marked Exhibit E).

<sup>199</sup> Beyler report, p. 11 (Marked Exhibit E).

<sup>200</sup> Beyler report, p. 11 (Marked Exhibit E).

<sup>201</sup> Bayne report (Marked Exhibit D); Kemp analysis, Tetrahedron Committee report (marked Exhibit S).  
<sup>202</sup> The CRU does not fully credit Garrett's account of what took place but only takes note as to its consistency with what the physical evidence demonstrates.

The jurors who convicted Garrett were not armed with enough reliable testimony or meaningful data to weigh the question posed to them. Today, modern, data-driven scientific understanding allows us to analyze the evidence fairly and discern between feeling and fact. Interpreted in light of new scientific advances and guided by the professional analysis of ten experts who have reviewed the evidence in this case, there is no basis whatsoever to believe that

however, the case against Garrett is nonexistent.  
 demonstrably unreliable testimony, faulty investigative methods, and baseless speculation, prove, beyond reasonable doubt, that he committed a truly heinous act. When stripped of What we are left with is the evidence introduced against Garrett, a record that purports to provable conclusion emerge as to how the fire actually started.<sup>202</sup>

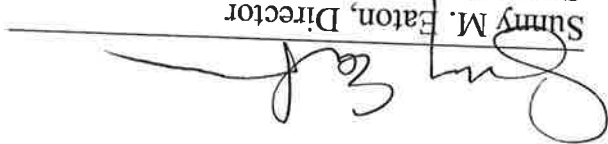
sound.<sup>201</sup> Despite these theories, at no point during the CRU's investigation did a definitive, African fire expert, Gary Kemp, has reviewed Bayne's analysis and agreed the hypothesis is stated Ms. Lance had fallen asleep earlier in the night, likely from a discarded cigarette. A South has provided a detailed analysis suggesting the fire originated in the loveseat where Garrett suggested plausible alternate theories related to accidental causation. Stuart Bayne, for example, morning of February 24, 1992, at 114 Broadway in Old Hickory, Tennessee. Fire experts have The inescapable reality is that we will never know for certain what occurred in the early

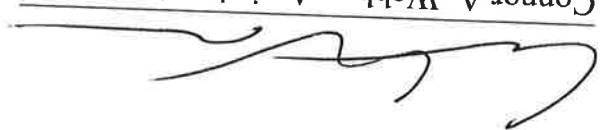
### III. CONCLUSION AND RECOMMENDATION

The evidence makes it highly unlikely that Ms. Lance was in the utility room before the fire started and there is no evidence proving she was locked inside the room at any point during the fire.

an incendiary act by Garrett caused this fire any more than a hypothesis suggesting accidental cause.

The CRU respectfully submits that the Office of the District Attorney should, in accordance with our obligation under Tenn. R. Sup. Ct. 3.8(g), formally recommend the conviction of Claude Francis Garrett for the death of Lorie Lee Lance be vacated.

  
Sunny M. Eaton, Director  
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FILED UNDER SEAL

**IV. EXHIBITS**