COMMONWEALTH OF MASSACHUSETTS

BERKSHIRE, SS.

BERKSHRE SUPERIOR COURT Docket No. CR86-0010-CR86-0013

COMMONWEALTH OF MASSACHUSETTS

v.

WILLIAM CASCONE

COMMONWEALTH'S SUPPLEMENT TO ITS RESPONSE TO DEFENDANT'S MOTION FOR NEW TRIAL: EXPERT REPORT

In its response to the defendant's motion for new trial, the Commonwealth indicated it had consulted with Sargent Paul Horgan of the Massachusetts State Police, Fire and Explosion Investigation Unit and provided an affidavit summarizing his opinion. In October 2022, the Commonwealth was able to secure a new arson expert, Michael Mazza, who had recently retired from the Massachusetts State Police and was previously unavailable to review this matter.

In light of this Court's order, dated October 18, 2022, and now, following the investiture of the new District Attorney on January 4, 2023, the Commonwealth supplements its response to the defendant's motion for new trial with the attached Expert Report and Opinion based on Trooper Mazza's review and investigation of the case file. Counsel and Trooper Mazza were able to recently meet with the new District Attorney to brief him on this case, which given the complexity and seriousness of this case, was appropriate before filing this report.

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¹ The Commonwealth had also retained an independent arson expert who ran into some personal issues and stopped communicating with the Commonwealth in August 2022.

As supported by this report, the Commonwealth's position remains the same as previously

stated in its initial response. Based on the newly developed fire-science standards and investigative

procedures that came into effect after this 1984 trial, the integrity of the investigation and evidence

revealed from the arson scene in this case is problematic because the evidence largely relied upon

at trial is no longer scientifically sound based on the new developments in arson science and

investigation standards under the NFPA 921. Moreover, the Commonwealth maintains its position

that although these developments in arson science may ultimately be deemed sufficient to allow

the defendant's motion for new trial, it is not enough to determine the defendant's innocence. See

Commonwealth v. Rosario, 477 Mass. 69, 81 (2017).

The Commonwealth seeks to submit the attached report as part of its response to the motion

for new trial, dated August 3, 2022, and for this Court's consideration on the defendant's motion

for new trial. In addition, the Commonwealth intends to call Michael Mazza as a witness, if this

Court deems an evidentiary hearing necessary in this matter.

Respectfully submitted,

TIMOTHY J. SHUGRUE

BERKSHIRE DISTRICT ATTORNEY

By: Jenniker Zalnasky

JENNIFER K. ZALNASKY

Chief of Appeals

Berkshire District Attorney's Office

7 North Street

Pittsfield, MA 01201

Tel. 413-443-5951 X137

jennifer.k.zalnasky@mass.gov

BBO# 650762

Date: January 13, 2023

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CERTIFICATE OF SERVICE

I, Jennifer K. Zalnasky, Assistant District Attorney, hereby certify that on this day a copy of the *Commonwealth's Supplement to Its Response to Defendant's Motion for New Trial*:

Expert Report by email upon the attorneys for the defendant:

Charlotte Whitmore: charlotte.whitmore@bc.edu

Sarah Elkins: <u>carlows@bc.edu</u>

David J. Grimaldi: david@attorneygrimaldi.com

Signed under the pains and penalties of perjury this 13th day of January, 2023.

Jennifer K. Zalnasky

Jenniker K. Zalnasky

Chief of Appeals

COMMONWEALTH OF MASSACHUSETTS

BERKSHIRE, SS.

SUPERIOR COURT

Docket No. CR86-0010-CR86-0013

COMMONWEALTH OF MASSACHUSETTS

 \mathbf{v} .

WILLIAM CASCONE

EXPERT REPORT AND OPINION:

On Wednesday October 12, 2022, I received a telephone request from Jennifer Zalnasky, Chief of Appeals, Berkshire County District Attorney's Office. She inquired if I would review documentation regarding a previous fire scene investigation conducted by others surrounding a 1984 triple homicide/arson investigation.

On Tuesday October 25, 2022, at approximately 1230 hours, I met with District Attorney Andrea Harrington, ADA Zalnasky, Edward Culver, and Trina Farnam at the office of the Berkshire District Attorney's. At that time, I was provided a copy of the case file of Commonwealth of Massachusetts vs William Cascone. I was also provided with an Analysis of the Investigation of the Fire at 279 State Street, North Adams, MA which occurred on October 27, 1984, prepared by Craig L. Beyler, Ph.D. I learned that the case was reviewed by Dr. Beyler for the Boston College Innocence Project.

CASE BACKGROUND

On Saturday, October 27, 1984, at approximately 0533 hours, the North Adams Fire Department responded to a reported structure fire at 279 State Street in the City of North Adams, MA. According to fire reports, the fire department received both a telephone call and a box alarm reporting the fire. Upon fire fighters' arrival there was heavy smoke and fire emanating from the four story, wood frame, combination commercial and multi-family dwelling house. Encountered by first-responding police and fire officials were multiple people suffering from serious injuries in front of the building. Fire fighters were advised of other persons being trapped in the building on the fourth floor. Fire fighters made their way up to the second-floor landing, through the front doorway. There, they encountered heavy fire traveling across the ceiling spreading from the open door of the second-floor apartment. Fire fighters were prevented from going any higher than the stairwell leading to the third floor due to heavy fire conditions and the stairwell being compromised. In the aftermath, as a result of the fire, the building was a total loss. All that remained was a portion of the first-floor commercial retail space and an apartment. The third and fourth floors collapsed into what was the second floor.

One occupant had been transported to North Adams Regional Hospital by a private party. Four others were transported by local ambulance. The deceased bodies of two young children and a teenage male were later discovered in the fire scene.

SCENE EXAMINATION

On the same date, at approximately 0800 hours, an investigation into the origin, cause and circumstances was initiated by Trooper Robert Scott of the Berkshire County Crime Prevention and Control Unit. Trooper Richard Smith was summoned to respond to the scene a short time later. Tpr. Scott was first to arrive and upon arrival met with Incident Commander, Commissioner Robert Perry. Tpr. Scott learned of the serious injuries and potential loss of life. Tpr. Scott performed an exterior scene examination and a cursory interior examination to attempt to locate the missing persons. During the exterior examination, Tpr. Scott noted that the building was a four-story wood frame structure built on a slab foundation. He noted both asphalt shingles and aluminum siding on the standing portions of walls. The building had been almost completely consumed by fire and the fire department was still conducting suppression operations. Attempts to locate the missing were ongoing with negative results.

Tpr. Scott's exterior examination commenced on the A side of the building and moved in a counterclockwise direction. On the front, A side, there was a store front on the first floor that did not appear to suffer from any fire damage. On the northeast corner, A and D side, there was a ground floor level apartment that did not appear to have suffered from fire damage. Tpr. Scott noted that in the middle of what was remaining of the front wall of the building, there was a large void in the exterior wall, a "V" pattern, extending upward from floor level of the second floor to where the now missing roof would have been. Much of the upper exterior walls on the D side remained intact.

The rear or west side of the building, C side, was noted as being a concrete slab and wall built into the graded-upward sloping ground. Much of the exterior wall above the second floor was missing due to the fire and subsequent collapse. Much of the third and fourth floors collapsed downward towards the rear wall. A small portion of the second-floor clapboard porch in the corner of the D and C side remained recognizable.

Tpr. Scott conducted most of his interior examination from the fire department ariel ladder while searching for the three victims. Tpr. Scott limited his interior examination of the first-floor commercial store front and the apartment occupied by Luis Booth to a very short period due to the potential of the existing walls and floors collapsing down into the first-floor units. No photographs were taken inside the first floor and only a limited number of exterior photos were taken. Tpr. Scott later concluded that due to the lack of any notable fire damage that the first floor at street level was not where the fire originated.

Tpr. Scott utilized burn patterns to assist him with his determination of the origin of the fire. He found that the lowest and greatest point of fire damage was in the south corner of the rear porches of the second floor at ground level. Further, Tpr. Scott relied on "V" patterns and "overlapping" to help him determine the path of fire travel.

As part of his investigation, Tpr. Scott was provided with photographs that were taken by a passerby, Stever Gramaldi, early in the development of the fire. He also had the opportunity to review a video recording of the fire taken by Robert Davis.

On the same date as the fire, at approximately 0904 hours, Tpr. Scott conducted an interview with the owner/occupant of the building, later identified as Simon SIMON. Mr. Simon advised Tpr. Scott that building was not insured. Mr. Simon indicated who occupied each of the rental properties in the building. Tpr. Scott learned that the heating systems in the building consisted of natural gas fired stoves within each of the apartments. Simon went on to report that the building was last rewired approximately 10 years prior to the fire. The only apartment that had working smoke detectors was his own, which was the entire second floor of the building. Of the four apartments on the third and fourth floor all but one was occupied at the time of the fire. The fourth-floor left unit had been rented but the tenants had yet to move in.

Simon described his observations about the fire. He reported that he was first alerted to the fire by the third-floor left tenant, Christopher Moorhouse, yelling that there was a fire. At almost the same time, Simon reported hearing a banging on his apartment door. Simon first observed the fire when he looked out his back door on to the south end of the porch and from his kitchen window which also looks towards the south end of the porch. He went out to the north end of the porch which is separated from the south end by a solid dividing wall and found no fire on the north side. When he returned to his kitchen with a pail that he had retrieved from the north side porch, the fire had grown to the point where any attempt to extinguish the flames was unlikely to be successful. Simon and his wife exited the building through the front doorway.

Tpr. Scott interviewed Kathy Monette who lived with Christopher Moorhouse on third floor left apartment. She got up at 0500 hours, as is customary for her, and went into her kitchen at rear of the apartment. Monette reported that she thought she smelled smoke but thought it was from the cigarette which she was smoking. Monette went into her bathroom, at the rear of the apartment, for approximately five minutes. After she returned to the kitchen, she could see fire on the rear porches outside her apartment. She woke up Moorhouse, and he alerted Patricia Marsh, their neighbor on the third floor.

Christopher Moorhouse reported to Tpr. Scott that he was alerted to the fire by Kathy Monette when she woke him up at 0515-0520. He saw fire out the kitchen window. He exited the building with Monette, Marsh and her two girls. Moorhouse re-entered the building to retrieve his cat. He observed people jumping from the rear of the building when he first exited the apartment building.

On the same date, at approximately 0937 hours, Tpr. Scott spoke with Bernard Marsh who was up early to go hunting. Between 0230-0300 hours, he had to pound on the ceiling because of the loud party in the apartment over his. Marsh reported hearing a fight break out above him. During that fight, he heard people rolling around and someone yelling "Get him the fuck out of my house." While Marsh was outside waiting for his ride, he saw two guys come from the back of the building, drive away, and return a short time later. He concluded that they never had any electrical problems, heat, brown outs, etc. or anything like that while he lived in the building.

First floor occupant, Louis A. Booth, was alerted to the fire by his dog. When he exited his apartment, the police were on scene and people had already jumped from building.

Summary of the statements taken on October 27, 1984, of those who were at Jeanette Scott's Apartment on the night of the fire:

Michael Ritcher reported to Trooper Smith that the following people got together at Jeanette Scott's apartment: Michael Ritcher, Jay Deeley, Glen Sumner, Sherry Tatro, Buddy Tatro and William Cascone. The fire was discovered at approximately 0500. Cascone left the apartment about 15 minutes earlier. Michael, Jeanette and Jay were all up in the kitchen when they discovered the fire. When they opened the front door there was already something preventing them from exiting. This was presumably fire and/or smoke. Shortly after that they were able to jump from the windows.

Glenn Sumner was at the party at Jeanette's. He was unaware if any arguments occurred. He was on couch when he was awoken at time of fire. The fire was on the rear porch and he saw fire coming through the wall.

Sherry Tatro observed Jeanette throw Cascone out of the apartment way before the fire. Cascone could have come back and could have left again. She fell asleep on the couch.

Jay Deeley reported that Jeanette threw Cascone out of the apartment 10-15 minutes before the fire because he was being belligerent.

Summary of interviews with Fire Fighters:

Fire fighters, Jim Hayes, Tony Saco, John LaClair Jr. and Brian Collins put the fire in the rear of the building. They made entry into the front of the building. Fire was coming from the second floor through an open door of the apartment and across the ceiling. They made it up as far as stairs leading to the third floor in front of the building but due to fire and declining conditions, they had to evacuate.

Fire fighter, acting Lt. Anthony Saco reported to Tpr. Scott that upon his arrival on the scene, the rear porches were on fire from the ground level up to the top of the building.

Prior to securing from the scene on October 27, 1984, Tpr. Scott determined that the point of origin of the fire was on the ground level rear porch in the south corner adjacent to the rear doorway. He based this on: his exterior and interior observations of fire damage patterns, the area of lowest and greatest fire damage, witness statements from the owner, occupants and visitors of 279 State Street, fire fighter observations, a review of the Gramaldi photographs and the Davis video tape.

On Tuesday, November 1, 2022, at approximately 1300 hours, ADA Zalnasky, Edward Culver, Ryan Dickinson and I met with Robert Scott and Richard Smith at the Berkshire District Attorney's Office. After speaking with the two investigators, I was under the impression that it was not until after most of the interviews had been conducted that the origin of the fire was determined. Furthermore, I learned that Smith conducted several tests with lighted cigarettes in various substrates. None of his tests were successful in getting a smoldering cigarette to transition to a flaming material. There was no documentation of these tests contained in the case file.

On Monday December 12, 2022, I was able to view exhibits in possession of the Berkshire Superior Court Clerk's office. Trial exhibits 1,2,3,4,5,6,11,12,13,14,15,16,17, and 26 were made available to view. Items 1,2,3,4,5,6, were enlarged copies of the Grimaldi photographs that were in the case file. Items 14, 15, 16, 17 were enlarged architectural diagrams of the building. Item 26 was a panoramic collage of four photographs depicting the rear of the building after the fire.



Earliest image captured by Steve Gramaldi while he was driving north on State Road. Fire can be seen on the rear porches and second floor center window.



Fire on rear porches. Fire showing 2nd floor front center window.

Trial Exhibit #3 shows greater fire



Fire spread from 3rd to 4th floor. Fire spread out to third floor front.



Counter and concurrent flame spread on rear porches

Concurrent flame spread and drop-down fire onto front store roof



Continued progression both front a rear of structure



Pre-fire image of "A" side, front of building



Post fire image of "A"," D" corner

ORIGIN AND CAUSE ANALYSIS:

NFPA 921 Guide for Fire and Explosion Investigation:

Prior to the inception of NFPA 921 Guide for Fire and Explosion Investigations, much of what was taught to fire investigators in the public sector consisted of what we now know to be based on out-of-date rules of thumb, myths, old wives' tales and misconceptions. Examples may include but are not limited to such things as spalling, crazing of glass, rainbow sheens in water, alligator char, and depth of char in relationship to time of damage to wood. As such, NFPA developed a guide to assist in improving the fire investigation process and the quality of information on fires from that process. The first edition of NFPA 921 was established in 1992. It contained 122 pages. Today the 2021 edition is the latest, containing 449 pages. The guide is updated approximately every three years. The Basic Methodology called for changes to include the systematic approach.

Chapter 4:

- 4.2 Systematic Approach. The systematic approach recommended is based on the scientific method, which is used in the physical science. This method provides an organizational and analytical process that is desirable and necessary in a successful fire investigation.
- 4.3 Relating Fire Investigation to the Scientific Method. The scientific method is a principle of inquiry that forms a basis for legitimate scientific and engineering processes, including fire incident investigation. It applies using the following 7 steps:

- (1) Recognize the need, (Identify the problem)
- (2) Define the problem
- (3) Collect data
- (4) Analyze the data
- (5) Develop hypotheses (inductive reasoning)
- (6) Test the hypotheses (deductive reasoning)
- (7) Select final hypothesis
- 4.3.1 Recognize the Need. A problem existed. There was a fire, there were three fire related deaths
- 4.3.2 Define the Problem. A proper origin and cause examination should be conducted. This is done by the scene examination in addition to conducting interviews of witnesses and other knowledgeable persons and the results of any scientific testing.
- 4.3.3 Collect Data. Information about the fire is collected by observation, experiment, or other direct data-gathering means. This data is called empirical data because it is based on observation or experience and is capable of being verified or known to be true.
- 4.3.4 Analyze the Data. The scientific method requires that all data collected be analyzed. This is an essential step that must take place before the formation of the final hypotheses.
- 4.3.5 Develop Hypotheses (Inductive Reasoning) Based on the data analysis, the investigator produces hypotheses to explain the phenomena, whether it be the nature of fire patterns, fire spread, identification of the origin, the ignition sequence, the fire cause, or the causes of damage or responsibility for the fire incident. This step is known as inductive reasoning. These hypotheses should be based solely on the empirical that the investigator has collected through observation and then developed into explanations for the event, which are based upon the investigator's knowledge, training, experience, and expertise.
- 4.3.6 Test the Hypotheses (Deductive Reasoning) The investigator does not have a valid or reliable conclusion unless the hypothesis can stand the test of careful and serious challenge. Testing of the hypothesis is done by the principle of deductive reasoning in which the investigator compares the hypothesis to all known facts as well as the body of scientific knowledge associated with the phenomena relevant to the specific incident. Testing of the hypothesis should be designed to disprove, or refute, the hypothesis. This may also be referred to as falsification of the hypothesis. Working to disprove a hypothesis is an attempt to find all the data or reasons why the hypothesis is not supported or not true, rather than simply finding and relying on data that support the hypothesis or why the hypothesis is true. This method of testing the hypothesis can prevent "confirmation bias" which can occur when the hypothesis or conclusion relies only on supporting data.
- 4.3.6.1* Any hypothesis that is incapable of being tested either physically or analytically, is an invalid hypothesis. A hypothesis developed based on the absence of data is an example of a hypothesis that is incapable of being tested. The inability to refute a hypothesis does not mean that the hypothesis is true.

4.3.7 Select Final Hypothesis. The final step in applying the scientific method—is to select the final hypothesis. Once the hypothesis has been tested, the investigator should review the entire process to ensure that all credible data are accounted for and all feasible alternative hypotheses have been considered and eliminated. When using the scientific method, the failure to consider alternative hypotheses is a serious error. A critical question to be answered is," Are there any other hypotheses that are consistent with the data". The investigator should document the facts that support the final hypothesis to the exclusion of all other reasonable hypotheses.

Chapter 18 Origin Determination:

- 18.1 Introduction This chapter recommends a methodology to follow in determining the origin of a fire. 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 generally, 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 location at which the fire began.
- 18.1.2 Determination of the origin of the fire involves the coordination of information derived from one or more of the following:
- (1) Witness Information and/or Electronic Data. The analysis of observations reported by persons who witnesses the fire or were aware of conditions present at the time of the fire as well as the analysis of electronic data including but not limited to security camera footage, alarm system activation, or other such data recorded in and around the time of the event.
- (2) Fire Patterns. The analysis of effects and patterns left by the fire, which include patterns involving electrical conductors.
- (3) Fire Dynamics. The analysis of fire dynamics [i.e., the physics and chemistry of the fire initiation and growth and the interaction between the fire and the building systems.
- 18.4.1.2 Sequence of Patterns. While fire patterns may be the most readily available data for origin determination, the investigator should keep in mind that the damage and burn patterns observed after a fire represent the total history of the fire.
- 18.4.1.3 Pattern Generation. The investigator should not assume that the fire at the origin burned the longest and therefore fire patterns showing the greatest damage must be at the area of origin. Greater damage in one place than in another may be a result of differences in thermal exposure due to differences in fuel loading, the location of the fuel package in the compartment, increases in ventilation, or firefighting tactics. For similar reasons, a fire investigator should consider these factors when there is a possibility of multiple origins.

TPR. SCOTT'S ORIGIN AND CAUSE EXAMINATION:

Tpr. Scott reported during both his direct and cross examination that he had determined that the origin of the fire was on the rear porches in the south corner adjacent to the rear exterior door. Tpr. Scott testified that he had come to that determination prior to his departure for the day on October 27, 1984, at approximately 1330-1400 hours. (Tr vol. VII, p. 1406, Cross examination). In part, he considered burn

patterns, "V" patterns and witness statements. He concluded that the point of origin was in the south corner on the ground level because that was where the lowest and greatest fire damage was.

ELIMINATION OF ACCIDENTAL FIRE CAUSES:

Smoking materials:

Tpr. Scott, in his determination that the fire was incendiary, after eliminating all accidental causes, had done so with the belief that an improperly discarded cigarette would take anywhere from one- and one-half hours to as long as to probably three hours to start a fire.

Even though an improperly disposed cigarette is unlikely to have caused this fire, the possibility cannot be eliminated knowing that the time frame for an improperly disposed cigarette could take as little as 10 minutes. Multiple people had been smoking while at the fourth-floor apartment of Jeanette Scott throughout the night. William Cascone is the only person to have been questioned about his smoking.

Q Now, Trooper Scott, did you consider the

possibility that accidental disposing of smoking materials,
either cigarettes or matches, provided the heat source that
started the fire on the southwest corner?

A Yes.

Q And in considering that, did you speak in
particular to William Cascone about what he had observed
when he went out onto that back porch?

A Yes.

Tr. Vol. VII, p. 1348 of direct examination

Q And over how long a period of time would you

expect a cigarette to incubate before it could start -
before a glowing fire could become an open combustion fire?

A I would estimate minimum times would be in the

range of an hour and a-half to probably three hours. I've

seen it go as long as eight or ten hours.

Tr. Vol. VII, Page 1355 (direct examination).

Relevant NFPA 921 Guidelines provide the following:

5.7.4.7.2* The time required from smolder initiation to transition to flaming is not predictable. Transitions to flaming in upholstered furniture have been observed in times ranging from 20 minutes to many hours. Times for transitions to flaming in large piles can be measured in days and months. Because transition to flaming is governed by changes in airflow and the creation of holes or channels, the time to transition to flaming combustion, if it happens at all, appears to be largely random.

5.7.4.7.3 When flaming combustion is initiated by a smoldering source such as a cigarette, or by self-heating, the process leading up to the appearance of the first flame may be quite slow. Once flaming combustion begins, however, the development of the fire may be faster than if the original ignition source were a flame, due to the preheating of the fuel.

Based on burn tests that I have personally be involved with while assigned to the Massachusetts State Police, Fire & Explosion Investigation Section, assigned to the State Fire Marshal's Office, the MA Chapter of the IAAI and New England Fire Investigation Research & Education, I have been able on several occasions to get open flame resulting from within a container with a smoldering cigarette and paper products in under 10 minutes. I have also found that improperly discarded cigarettes are not very reliable in causing fires when discarded in all different types of substrates.

Electrical System:

I suspect that Tpr. Scott relied solely on the statement provided to him by Mr. Simon that there were no electrical services on the rear porch. Mr. Simon later testified to the fact that there was a terminated electrical socket. The following is an excerpt from the cross examination of Tpr Scott regarding his examination of the electrical system associated with the building. In it Tpr. Scott explains that he did not do an examination of the electrical system prior to the elimination of same. For that reason, the electrical system cannot be conclusively eliminated as a potential cause.

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(by Mr. Cohen) With regard to an accident caused
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       electrical problems, okay?
3 1
               I'll limit it just to electrical problems now.
4
    Could you tell us what steps did you take to eliminate the
    electrical short or electrical malfunct on as being the
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7
                          That was from my physical observation
8
                              I would have expected to see in
9
     of the back porch area.
10
     spite of the amount of debris from that area that there
    would be some evidence of electrical wiring in the area of
                 That was done primarily, however, through
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13
     witness interviews to determine that no wiring had been at
14
     or near the point of origin.
               Let me ask you this: You didn't actually dig or
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     sift for purposes of recovering any electrical wiring, did
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17
18
               I did not.
19
               You didn't actually go through the area where the
     back porch was located, the point that you determined to be
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     the point of origin, to see whether there was indeed some
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kind of electrical wire back there, did you?

Tr. Vol. VII, p. 1439 of cross-examination

AREA OF ORIGIN ANALYSIS:

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After careful consideration of the Fire scene patterns, witness statements, Gramaldi photographs, the Davis video and the trial exhibits, it is my opinion that the fire originated on the rear porches of 279 State Street in the City of North Adams on October 27, 1984. The witnesses from the 2nd, 3rd and 4th floors all noticed the fire at relatively the same time. The first person to have observed flames was Kathy Monette, 3rd floor left, around 0515. However, she also reported detecting the odor of smoke, 10-15 minutes earlier and she discounted the odor as being the cigarette which she was smoking. Immediately upon discovering the fire she alerted her boyfriend, Chris Morehouse, who first sought out to see the fire, and then alert his next-door neighbor, Patricia Marsh and her two daughters. While Marsh was getting her daughters ready to leave their apartment, reportedly she was the first to observe flames inside her apartment as the shower curtain adjacent to her bathroom window which looked out onto the rear third floor porch caught on fire. Morehouse in the meantime was yelling to the owner occupants of the second floor to alert them to the fire before exiting his own apartment with his girlfriend. Meanwhile the occupants on the fourth floor had also observed fire on the fourth-floor rear porch and were trying to escape. After exiting their own apartment, Morehouse alerts the Simons of the fire. Mr. Simon sees flames on the south side of his divided porch. But after going to retrieve a pail from his north side porch, in an attempt to put water on the fire, he gathers his wife, and they exit.

Essentially at the same time, people are jumping from the fourth floor as they are observed on the ground at about the same time the second and third floor occupants exit the building.

All interviews are consistent with the fire being on the rear porches and not inside any of the apartments. Fire fighters reported seeing fire on the rear porches. The Gramaldi photos, although capture images only from the south end looking towards the north, show fire initially burning on the rear porches with the progression both upwards and downwards.

Trial exhibit 1 shows heavy fire at the rear porches along with a glow in the second-floor center front stairwell window. The overall design of the rear porches was not uniform. The second-floor porch at ground level was concealed from the outdoors with full walls from the floor to the ceiling. There was a full dividing wall separating the south and north sides of the second-floor porch. The 3rd and 4th floor were open sided halfway up from the floor to the ceiling. Also, the fuel load packages on each floor were different. The third floor had a mattress and cloths lines with hanging clothing. The fourth floor had boxes with household goods. The first floor south had various household goods being stored.

I would agree that the first observation of flames was by Kathy Monette on the third floor. A fire burning, or originating, on the second floor first might explain why Kathy Monette smelled smoke 10-15 minutes prior to seeing the fire. Generally, Counterflow Flame Spread is slow as a result of limited ability to heat fuel ahead of the flame front. Concurrent flame spread would seemingly travel, in this case upward, and much more rapidly. Once fire was observed on the third floor, within moments it was observed on both the second and fourth floors. Accessing each floor was an open walled staircase with stairs with risers and treads, as well as a partial open exterior wall on the third and fourth floors.

FIRE CAUSE

Tpr. Scott testified that he had determined the origin of the fire by no later than 1400 hours on October 27, 1984, and the cause was determined at approximately 2000 hours after concluding his interview with William Cascone. For him to have come to that conclusion, he only could have considered his own observations, the observations of Tpr. Smith, information provided by other police and fire officials and other witness interview information provided to him. These interviews included:

Simon Simon, Jane Simon, Bernard, Marsh, Kathy Monette, Fred Altier, Michael Ritcher, Sheri Tatro, Glenn Sumner, Norman Tatro, Brenda Pelletier, Lynn Tatro, Bob Tatro, Terry Peters, Linda Wincek. Steve Gramaldi, Robert Davis, William Cascone, as well as various police and fire officials.

It was after Tprs. Scott and Smith interviewed William Cascone on October 27, 1984, that Tpr. Scott determined that the fire was incendiary in nature and that the cause was the application of an open flame to the available materials. Additional sources of information may have proved that information to be true, but to have made that determination at that time was both premature and speculative.

19.6.5 Appropriate Use. The process of elimination is an integral part of the scientific method. All Potential ignition sources present or believed to be present in the area of origin should be identified, and alternative hypotheses should be considered and challenged against the facts. Elimination of a testable hypothesis by disproving the hypothesis with reliable data is a fundamental part of the scientific method. However, the process of elimination can be used inappropriately, Identifying the ignition source of a fire by believing to have eliminated all ignition sources found, known, or suspected to have been present in the area of origin, and for which no supporting evidence exists, is referred to by some

investigators as *negative corpus*. Determination of the ignition source must be based on data or logical infrences drawn from that data. Negative corpus has been used in classifying fires as incendiary, although the process has also been used to characterize fires as accidental. The negative corpus process is not consistent with the scientific method, is inappropriate, and should not be used because it generates untestable hypotheses and may result in incorrect determinations of the ignition source and first fuel ignited. Any hypotheses formulated for the casual factors must be based on the analysis of facts and logical inferences that flow from those facts. Those facts and logical inferences are derived from data, observations, calculations, experiments, and the laws of science. Speculative information cannot be included in the analysis.

19.6.5.1 Cause Undetermined In circumstances where all hypotheses have been rejected, or if two or more hypotheses cannot be rejected, the only choice for the investigator is to conclude that the fire cause, or specific casual factors, is undetermined. It is improper to base hypotheses on the absence of any supportive evidence. That is, it is improper to opine a specific cause, ignition source, or fuel, that has no evidence to support it even though all other such hypothesized elements were eliminated

CONCLUSION:

After considering all the witness statements, transcripts, testimony, pre-fire photographs, fire photographs, post-fire photographs, a video recording, exhibits, diagrams and sketches. It is my opinion that the fire originated on the rear porches located at 279 State Street in the City of North Adams in the morning hours of October 27, 1984. However, it is further my opinion that there is insufficient documentation and illustration to define a more specific area of the porches beyond the second or third floors as the origin of the fire. Furthermore, based on current data, not relied upon in 1984, smoking materials causation and the time frame surrounding same, prohibits the exclusion of the improper disposal of smoking materials as a cause for this fire. The reliance solely on Mr. Simon's statement as to there being no electrical wiring on the porch is an insufficient examination of the electrical service prohibiting the exclusion of that as a cause.

Respectfully submitted.

Michael Mazza, CFI-IAAI

REFRENCES

NFPA (1992, 1995, 1998, 2001, 2004, 2008, 2011, 2014, 2017, 2021), Guide for Fire and Explosion Investigations, NFPA 921, National Fire Protection Association, Quincy, MA.

NFPA (2009, 2014, 2022), Standard for Professional Qualifications for Fire Investigator, NFPA 1033, National Fire Protection Association, Quincy, MA.