

## Systematic Perspectives to Proceeding a Scene of Crime: An Overview

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### Abstract

Crime scene investigation is a crucial part of any investigation. It is the connecting point of science, logic, and law. The examination of a crime scene is a time consuming and labour intensive process that includes relevant documentation, photography, or videography of the situation or condition at the scene, as well as the position of the evidence. Forensic science principles govern criminal proceedings from the examination of a crime scene to the conviction of an accused in a court of law. Law enforcement created the forensics protocol, a methodical strategy or procedure that must be followed for evidence to be reliable and admissible in court. The goal of this article is to propose a systematic approach for dealing with crime scene evidence in the context of forensic and law enforcement specialists to avoid contamination, deterioration, and loss of (value) evidence.

**Keywords:** Crime Scene; Evidence; Investigation; Contamination; Photography.

## INTRODUCTION

The scene of the crime is the location where the police has conducted their investigation. Investigative teams will gather physical data and visual evidence at a crime scene, and it

includes crime scene investigators (CSIs) and even sometimes forensic experts. Evidence collected at the crime scene could create a picture of what had happened there for the court to evaluate during its deliberations, crime scene management skills are an extremely important task component of an investigation.<sup>1</sup>

Crime scenes are inconsistent in nature and diverse enough to be categorized in different ways. First, crime scenes can be categorized based on where the original criminal activity occurred. According to this classification, the primary crime scene is the location of the initial or first criminal conduct, and all later crime scenes are considered secondary. This classification just indicates the order of the locations and implies neither priority nor importance of the scene.<sup>2</sup>

Outdoor, indoor, and transportation crime scenes are the three major different categories. If

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not properly preserved, an outdoor crime scene could be vulnerable to the elements. Despite the significantly lower risk of contamination at an interior crime scene, it must nevertheless be adequately kept and recorded. The early forensic advancements in criminal investigation show the need for investigators to acquire the knowledge and abilities to explore and use physical evidence that enables circumstantial links between people, places, and events to prove the facts of criminal cases.<sup>3</sup>

### *Moving toward modern investigation*

Today, the term "criminal investigation" refers to a broad range of specialties that work to understand how events happened and to create a pattern of facts based on evidence that can be used to demonstrate an accused person's guilt or innocence in a criminal incident. A criminal investigation is not always a difficult task when a person is detected committing a crime and caught red handed on the spot. However, the criminal investigation procedure becomes more difficult and is drawn when the criminal incident is found after the fact or when the perpetrator is not immediately evident. The duty of a crime scene investigator is to collect forensic evidence from crime scenes that will eventually help to identify and apprehend perpetrators. To visualize, capture, and recover evidence from crime scenes, one has to process the scene using specialized methodologies.<sup>4</sup>

### *Forensic Science Acceptability in the Criminal Justice System*

As technology has developed, the number of scientific experts has been rising quickly. The scientific techniques for gathering evidence are advanced and have become more predictable in the criminal justice system. It is imperative to use science as a tool to make the most of criminal investigations. Effective investigation can also be beneficial, particularly in criminal circumstances. Science and technology assist in gathering the shards of evidence, investigating, examining the evidence, suspected documents, thorough files, and physical evidence. Immediately following a crime, a group of forensic professionals arrives to gather any circumstantial evidence that might have been tampered with as a result of the delay. Law enforcement, criminal, civil, and judicial concerns are all handled by the forensic team using its fields of study and scientific skills.

All the forensic reports or opinion of experts or opinion of third party when relevant, are

admissible under Section 45 of the Evidence Act, of 1872. The Court must express an opinion regarding the following in accordance with Indian Evidence Law: foreign law, science, art, and identity of handwriting (or finger impressions). Numerous instances in India's courts have defined an expert as someone with specialized knowledge that is not required to be studied in a university. He is a person who possesses expertise or experience in any art, trade, or profession that has been gained through practice, rigorous study, or observation and goes beyond the scope of common knowledge.<sup>5</sup>

## **AUTHORIZATION**

It is the responsibility of the government law enforcement apex body to authorize the agency as to who may enter the crime scene. It is crucial to take proper authorization to inspect the scene of the crime, and obtain authorization from the investigating officer that specifically mentioned the log dispatch information, address and location, time, date, call type, and persons before entering the crime scene.<sup>6</sup>

### *Initial Response at the crime scene*

The initial responding officer (s) have as their top priority of the physical safety and well being of themselves, other people, and the crime scene. Any risky situations or tricky people must be identified and controlled by the first responding officer (s) at the scene. Check that there is no immediate danger to other emergency personnel and search the area for sights, sounds, and odour's that could be dangerous (e.g., hazardous materials such as gasoline, and natural gas). Before accessing the scene, the proper persons or agency should be contacted if the issue concerns a covert drug lab, biological weapons, radiological, or chemical hazards. Gloves will be worn at all times when handling blood and biologically stained materials and/or other potentially hazardous chemicals at a crime scene.<sup>7</sup> Gloves also are worn while handling bodies, if there are any. Additional protective clothing such as disposable lab coats, booty, gloves, and caps can also be worn as needed.<sup>8</sup>

### *Crime Scene Security*

In addition to establishing a security system to prevent any unauthorized individuals from entering the crime scene and to avoid any contamination, it must delineate the crime scene with a perimeter tape. A security officer is tasked with controlling people's access to and exit from

the crime scene for this reason. It becomes the sole responsibility of the designated security officer to secure the crime scene and only allow those who are involved in the investigation.<sup>9</sup>

### Identify Scene Dimensions

Before initiating the investigation, a mental strategy has to be framed by the officer that how the crime scene will be examined. Every component of

the crime scene investigation must be documented with several notes, photographs, and diagrams with pertinent dates. A walk through the area following the "trail" of the crime will typically be the first step in the assessment of the scene. The trail is the location where all of the seeming criminal activity has occurred.<sup>6</sup> The following Diagram depicts the systematic steps for the investigation of the scene of the crime (Fig. 1).

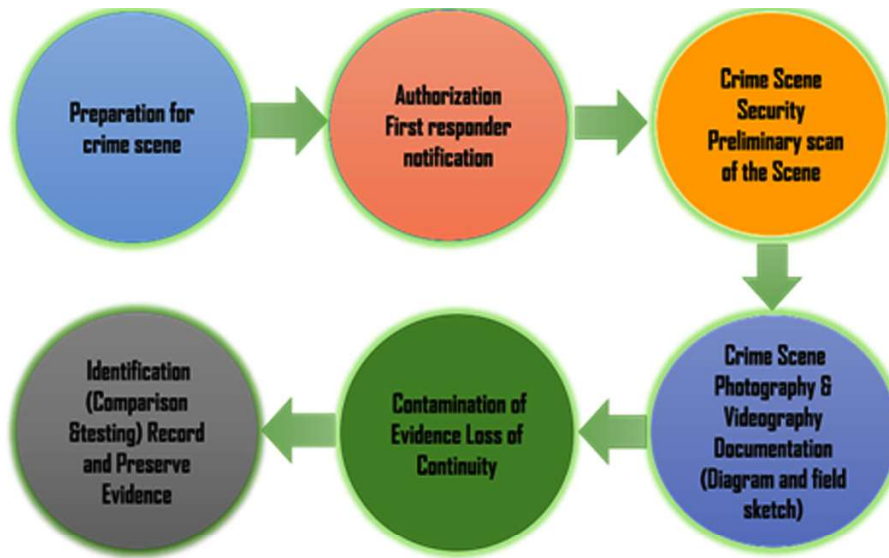


Fig. 1: Schematic diagram of crime scene investigation.

### Attention to Originating Stages of Evidence

Determining the location of a criminal event or the affected area is one of the major challenges in crime scene management. The investigator can locate potential places for crime scene evidence by making these determinations. It's not always as simple as going to one place or focusing on the criminal occurrence for a certain period. There are three possible time phases in the investigation where evidence can be found. These three phases are the pre-crime, criminal event, and post-crime phases. It's important to keep in mind that each origin stage of evidence offers opportunities for gathering information that could link the suspect to the crime.<sup>10,11</sup>

1. The Pre-Crime Stage starts when an inquiry reveals signs of planning or preparation. It may also involve pre-crime contact with the victim or the accomplices, research, sketches, or items used in the crime. When pre-crime artifacts, like hair and fiber, are later found at the crime scene, provides a chance to connect the suspect to the crime.<sup>12</sup>

2. Most of the victim offender communications occur at the Criminal Event Stage. The strongest chance for evidence transfer is present during these contacts. Even the most vigilant offenders occasionally leave behind some indication of their, identity such as fingerprints, shoe prints, glove prints, tire prints, tool impressions, shell casings, hair or fiber, or DNA.<sup>13</sup>
3. As the suspect leave traces at the crime site, the post-crime stage begins. Suspects have a history of throwing away pieces of evidence that can be recovered and studied to help identify them as they flee the crime scene. The suspect starts to worry about tidying up the scene during this post-crime phase. Despite a suspect's best efforts, evidence transfers from the crime scene are frequently missed.

### Criminal investigation as a Process of Thinking

Investigators must be aware of various legal rules, concepts, principles, doctrines, and protocols while conducting an investigation and it must be incorporated into their thought process as well.

When an officer first arrives at a crime scene, they have to move frequently and make bold judgments based on scant information in an ongoing dynamic setting with ongoing incidents. Following a criminal incident, the investigator is responsible for maintaining the crime scene, gathering evidence, and developing an investigation strategy that will result in the formation of reasonable grounds to identify and apprehend the offender.<sup>14,15</sup>

### ***Conduct Primary Survey***

The investigators should always carry notebooks, flashlights, pens, etc. when they rush towards the crime spot. This would definitely prevent undesirable fingerprints from being left behind at the scene. Finally, the investigators should look out of the box during the walk through. Such important evidence as blood splatter and bullet holes may be found at these places. After the walk through is finished, the scenario needs to be captured on film, in pictures, or in sketches.<sup>16</sup>

### ***Crime Scene Photography***

Before commencing any intrusive procedure of examination, the crime scene must always be photographed. Never let it alter from anyone without getting it first photographed. A body or object that has been relocated cannot ever be retrieved in its original position. Crime scene photography is a crucial part of any crime scene. All the photographs should be taken using a scale device for size determination. The scene of crime photography commences with the location fixation. The location fixation is accomplished by taking long range shots showing the scene of the crime along with some permanent landmarks such as buildings kilometre reading, road signs, sign boards, and other features characteristics of the scene.<sup>17</sup>

The crime scene is always captured in a sequence from clockwise or anti-clockwise i.e., outside to the centre or to the outside of the crime scene. Often, the surrounding environment and places are also significant. A crime scene always covers the largest area with different positions and angles. While taking photos of a crime scene, the perpetrator's entrance and exit points are always visible. Photography of all evidence must be taken with the help of an "L" shaped forensic scale because it helps to identify the actual size of evidence and the exact length of the object to maintain proof that this object was used for the crime and may be used in future references of evidence in the laboratory or reconstruction of the crime scene. Some physical pieces of evidence need a closer view of

photography with proper lighting at the crime scene, if it's a night crime scene then an additional light source must be available.<sup>18,19</sup>

In a homicide case, the dead body must be photographed from a different angle on each side. If the body has been removed, then one should take a photograph of the scene with the appropriate labels. The recording of objects present on the dead body or in the hands must be photographed. If any identification mark is found on the body of a dead person, it must also be photographed with scale. The crime scene photographer also covers the signs of different types of injuries, like abrasion wounds, etc. In burglary cases, broken glasses, doors, windows, wooden almirahs, etc., and any scratch marks present on these things or the walls then they would also be captured, and showing any sign of struggle then it must be photographed.<sup>19</sup>

## **CREATING A CRIME SCENE DIAGRAM AND FIELD SKETCH**

A rough sketch is drawn at the scene and is normally not scaled. It includes the location, date, time, case identifier, preparer, weather conditions, scale or scale disclaimer, compass orientation, evidence, measurements, key, or legend.

The next stage is to draw a diagram or make a field sketch of the crime scene which has to be used as documentation. The field sketch differs from the Crime Scene Diagram in that it is a rapid, crude representation of the incident, as suggested by the name.<sup>6</sup>

- If the scene is a building, the address, entrances, exits, windows, positions of the rooms and furniture, and locations of all exhibits related to the crime must be displayed.
- It is quite difficult to determine and record the exact location of a crime scene if it is outdoors. An outdoor scene's geographic location must be determined concerning another known place, such as a road crossing, a mile marker, or even by attaching GPS coordinates to a permanently fixed object in the crime scene.
- Each exhibit will be given a number on the diagram once the basic diagram elements are finished and evidence is gathered from the crime scene. This number can be cross-referenced with the exhibit log that a designated exhibit custodian, a member of the crime scene management team, will fill

out.

## DOCUMENT AND PROCESS SCENE

It is essential to adhere to suitable collection methods to prevent any kind of contamination or destruction of evidence. Physical evidence typically serves as the trail's identifier. This could comprise the entrance point, the crime scene, any clean-up locations used by the suspect, and the exit point. If relevant evidence is in danger of being lost, a walk-through could become less important in some circumstances. In such situations, it is important to collect and preserve this evidence as soon as you can.<sup>16</sup>

### *Contamination of Evidence*

In any crime scene, there are two big challenges for the physical evidence which are contamination and loss of continuity. For investigators, contamination is a fact of life. The unintentional alteration of evidence that can compromise the integrity of the original exhibit at the crime scene is known as contamination. This unintentional alteration of the evidence may erase the original evidence transfer, muddle a sample, or add false new materials to an exhibit. Contamination can undermine the analysis of the original evidence transfer to the point where the court may not accept the analysis and inference that the analysis might otherwise have shown, just as evidence transfer between a suspect and the crime scene or the suspect and victim can establish a circumstantial connection. When crime scene investigators don't follow the right crime scene management procedures, it might lead to exhibit contamination or cross-contamination between exhibits.<sup>20</sup>

## PATH OF CONTAMINATION

A crime scene's potential for contamination cannot be completely ruled out. Only through careful monitoring and documenting the contamination continuously the forensic integrity of the crime scene and the evidence could be preserved. It is important to capture in notes or a statement from each person what contamination they have caused the site after victims, witnesses, suspects, first responders, and investigators have been removed. What sort of evidence has been transported, and handled, and by whom it will be documented, and by whom the information is being acquired? The investigator can construct a baseline or state of the current contamination at the crime

scene using this information. Before the lockdown, if something was moved or handled in a way that contaminated the item, it might still be possible to obtain an appropriate analysis of the item, if the contamination can be identified specifically and measured quantitatively.<sup>20</sup>

## LOSS OF CONTINUITY

Protocols to secure the integrity of the evidence include developing and preserving the continuity of evidence, just like controlling contamination. The judge must be convinced that the exhibit provided in front of the court is the same article that was taken from the crime scene for any evidence so that it can be accepted by the court. The "chain of continuity," which follows each exhibit from the crime scene to the courtroom, must be shown by the evidence.<sup>1</sup>

## RECORD AND PRESERVE EVIDENCE

The crime scene is often a nexus of events and consequently, it requires a systematic approach to ensure that the evidence gathered will be acceptable in court. Exhibits, such as blood, hair, fibre, fingerprints, and other objects requiring forensic analysis, may illustrate spatial relationships through evidence transfers.<sup>21</sup> Other types of physical evidence may establish timelines and circumstantial indications of motive, opportunity, or means. All evidence within the physical environment of the crime scene is critically important to the investigative process. Conduct another walkthrough to ensure everything has been processed and recorded.<sup>22</sup>

## SUMMARY

We have discussed the important facts of crime scene management, safety, evidence identification, collection, protection, contamination, and documentation. These are the most crucial abilities that a detective must pick up and incorporate into their arsenal of investigative techniques. These skills of crime scene management and evidence management will become the procedural norms and the fundamental operational habits for proper and professional investigative activity, once they have been mastered and applied in daily practice.

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