

## CRIME SCENE MANAGEMENT IN CRIMINAL INVESTIGATION

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### INTRODUCTION:

Identifying, recording, and gathering physical and biological evidence at the crime scene is the aim of crime scene investigation. Because the case being investigated must be presented in court, this process must be carried out carefully and thoughtfully. Piecing together the facts to create a picture of what happened at the crime site will be essential to solving the crime. Securing the crime scene, taking pictures, doing a thorough search, documenting the scene methodically, and appropriately gathering, packing, preserving, and transporting all of the evidence found at a particular crime scene are all part of crime scene investigation. Most of the time, whether or not physical evidence will be used to solve or prosecute crimes depends heavily on the investigating officer who guards and investigates a crime scene<sup>2076</sup>.

GRASP - EDUCATE - EVOLVE

<sup>2076</sup> <https://dfs.nic.in> – Standard Operating Procedures For Crime Scene Investigation

The location where criminal activity is investigated is known as a crime scene. Investigative teams, comprising crime scene investigators (CSIs) and sometimes forensic scientists, will record and collect visual and tangible evidence at crime scenes. One of their most significant responsibilities is to preserve evidence and forward it along the appropriate chain of custody. Crime scenes are characterized by a great deal of documentation and any evidence that may be there.

Fingerprints, hair, blood, footsteps, the location of furniture in the room, and even the victim's wounds in the event of a violent crime can all be considered pieces of evidence. Crime scene investigators may look into a secondary crime scene, which is connected but not the actual crime scene, or the primary crime scene, where the crime really occurred. For instance, someone abducts a person from their home. The residence is the location of the crime, but in the case of the kidnapping, the hotel is a secondary crime scene when the victim is discovered alive and restrained at a hotel many miles away. There are three different kinds of crime scenes: the indoor, outdoor, and conveyance.

If not properly preserved, an outdoor crime scene is vulnerable to the weather. Even while an indoor crime scene is far less likely to be contaminated, it still needs to be properly documented and preserved. The actions one takes to commit a conveyance offense are part of the crime. For instance, investigators should search for evidence from indoor or outdoor crime scenes as well as modes of transportation. Is there evidence of footsteps leaving the murder scene? Is there a missing car that the offender might have used?<sup>2077</sup>

#### **Initial Response to Crime Scene:**

The Initial responding officer upon arrival shall access the scene. He should Note/log dispatch information (eg: address/location, time, date,

parties involved). Be aware of any persons or vehicles leaving the crime scene.

The duties of the first responder include the following:

- A. Assist the victim.
- B. Search for and arrest the suspect if that person is still present in the crime scene.
- C. Protect and secure the crime scene.
- D. Establish a crime scene security log to record any person who enter or exit the crime scene and limit the access<sup>2078</sup>.

#### **Protection of Crime Scene:**

Protecting the crime scene is the most crucial part of collecting and preserving evidence. To prevent contamination and preserve the reliability of the evidence, the crime scene must be heavily guarded until all of the evidence has been documented and gathered. The physical evidence's condition at the time of collecting and its placement may have an impact on the case's successful prosecution. It is important to properly inspect the entry and exit methods. The crime scene should be taken over by the first responder, who will also assess the scene's level of protection. To determine the true state of the crime scene and the location of the evidence, information about any change or disruption should be gathered from anybody who entered the area prior to the arrival of the first responder or investigating officer. To stop any further scene disturbance and contamination of possible physical sources, the crime scene and any other location that might yield important evidence should be sealed off. The crime scene should not be open to unauthorized individuals, and everyone entering or departing should leave a record<sup>2079</sup>.

#### **Crime Scene Searching Methods:**

Identification and recovery of physical evidence is the main part of crime scene investigation. Regardless of the nature of the crime scene, the investigator must choose the

<sup>2077</sup> <https://study.com>

<sup>2078</sup> <https://www.slideshare.net/slideshow/crime-scene-management>

<sup>2079</sup> <https://www.researchgate.net/crime-scene-investigation>

best approach right away in order to gather the evidence as intact as possible. The following are the basic search techniques used at the crime scene<sup>2080</sup>:

**Strip Method:**

The strip approach establishes a reasonable outside limit of the search area by dividing the area into portions ranging from four to eight feet, depending on which is easiest. The searcher moves in a straight line from end to end of the search area, walking or bending to his knees. After that, the searcher turns around and follows the same route again. Until the entire area is searched, this process is repeated.

**Grid Method:**

The grid technique and the strip method are identical; however, the searcher does a second strip method search perpendicular to the strip search pattern after the strip method is complete. It is also known as “double-strip method”.<sup>2081</sup>

**Spiral Method:**

The spiral search approach is another technique that may be applied to indoors as well as outdoors. Typically, the spiral search starts at the scene's outer edge and moves inward in a tight circle. One person using this approach in a tiny indoor environment is very suitable.

**Zonal method:**

Search techniques created specifically to cover big regions are needed for outdoor scenes or extremely large indoors. For this, the sector search approach is commonly used. The scene is divided into equal sections or zones using this procedure. Each sector typically has one searcher assigned to it who is in charge of everything that takes place there.<sup>2082</sup>

**Wheel Search Method:**

Alternatively referred to as the “pie” or “ray” search pattern. By following this pattern, crime scene investigators begin at a crucial location, like the body, then go outward in straight lines or rays. Usually, this approach is reserved for special circumstances. It has few applications and is challenging to utilize in large searches.<sup>2083</sup>

**Random Search Method:**

Because it may be used anywhere, this is the approach that investigators use the most frequently. This approach does not require adherence to the aforementioned rule. This approach should also be taken into account for complicated crime scenes. Finding evident pieces of evidence, such as weapons, damaged objects, or apparent traces, is the main goal of the first quasi-search. It is typically carried out prior to the crime scene being officially documented. Before beginning documentation, this search helps investigators get to know with the structure of the crime scene. Investigators can gain a basic knowledge of the crime from the preliminary search, which helps them plan their strategy for the more thorough investigation that follows.

**Intensive Search Method:**

The intensive search is carried out following documentation, such as notes, sketches, and photos, but before the actual gathering and packaging of evidence starts. They are combined with other searches like zone, grid, and spiral. They have been shown to be more suitable indoors or at crime scenes with lots of objects and small spaces. There is a degree of intrusiveness to intensive searches; in order to prevent damaging evidence, increase the level of intrusiveness.

Here are examples of various levels of intrusiveness:

Least intrusive search method :

<sup>2080</sup> <https://ijrfvoice.com>

<sup>2081</sup> W. Mark Dale, MBA and Wendy S. Becker, Ph.D., The Crime Scene: How Forensic Science works, Northeast Regional Forensics Institute, pg.no 47

<sup>2082</sup> James N. Gilbert, Criminal Investigation, Seventh edition, pg.no 89, 90

<sup>2083</sup> Roy Fenoff, Jacqueline T. Fish, Larry S. Miller, Edward W. Wallace and Michael C. Braswell, Crime Scene Investigation, Fourth Edition, pg.no 56

The least intrusive search method involves documenting and gathering information after searching the crime scene with the naked eye or a lighting tool (ALS) without touching any objects.

#### More invasive Method:

After preliminary documentation and collecting, objects such as clothing, furniture, and other items are moved to reveal items that are hidden or less visible.

#### Most intrusive Method:

The most invasive method is destroying or damaging objects found at the crime scene in order to gather evidence. For instance, cutting sections of carpet with a bloodstain pattern, drilling holes in the wall to recover missiles, etc.

#### Link (Point-to-Point) Search Method :

By first assessing the different focus points inside the crime scene and then documenting and transmitting one after the other, link search methods concentrate on tracing a trail of evidence. Using this approach, the search starts at the first point of interest, such the front door or the evidence, and moves on to the next. This process keeps going back and forth until every topic of interest is covered. When there are several sites of interest at a crime scene and investigators need to create multiple routes to follow, this approach works well.<sup>2084</sup>

#### Sketching of the Crime Scene:

If the crime scene has previously been photographed or videotaped, why should it still be sketched? When creating investigative reports and questioning suspects and witnesses, sketches come in handy. Additionally, sketches are great photographic companions. Sketches give precise information on the placement of objects and illustrate the relationships and distances between them, whereas pictures provide precise details. An investigator's memory can be refreshed by using sketches, which can also help the prosecution and judge grasp the conditions at

the crime scene, represent the relationship of objects to the surrounding area, and improve images of the scene.

According to Geberth (2006), a sketch or diagram must fulfill the following conditions in order to be admitted in court: It needs to be included in the testimony of a qualified individual. It needs to remember what the person who prepared it witnessed. It has to accurately portray the location or scene.

When sketching a crime scene, the necessary physical evidence found within the scene and the overall scene are given the appropriate perspective and units of measurement. It's not hard to sketch a crime scene, but the investigator must be organized and plan ahead. There are two kinds of crime scene sketches: Finished or final sketches and rough sketches. Measurements for the crime scene sketch can be taken using three different methods:

1. Triangulation
2. Base line (fixed line)
3. Polar co-ordinators

The notes and photos acquired during the crime scene investigation are enhanced by a crime scene sketch. The sketch's goal is to convey precise information, not necessarily to be visually appealing. A straightforward line sketch with precise measurements is adequate. Certain outdoor dimensions can be calculated or derived from an automobile's odometer. However, exact measurements and an exact representation of the crime scene are crucial for a final report sketch. The first step in sketch preparation is to take a broad overview of the situation and choose which details to include. Next, the researcher has to choose a scale. Generally speaking, make an effort to use the largest scale you can. Divide the scene's longest measurement by the sketching paper's longest measurement to choose the appropriate scale. Paper measuring 8 1/2 x 11 inches is used for the majority of reports and records. Consequently, if the scene's longest measurement is 100 feet. To ensure that the drawing fits properly inside the

<sup>2084</sup> <https://lrfvoice.com>

11-inch length of the paper, let 1 inch equal 10 feet. Graph paper also makes it easier to draw objects while maintaining scale.

A compass or orienting compass arrow pointing north, a legend or key explaining the characters, numbers, or symbols used, and a note of the scale being used should be included in every sketch. The Sketch should mention whether it is day or night by drawing sun or moon.<sup>2085</sup>

### **Documentation of the Crime Scene:**

Observing and documenting the crime scene serves the dual purposes of mentally preparing and outlining the process for the examination of the scene as well as noting the location of any evidence. Conditions at the crime scene, including lighting (on/off), newspapers, on the door or inside the house, curtains (open/closed), weather, temperature, furniture movement or other disturbances made during life-saving efforts, conditions that would support or refute suicide or self-defence (gunshot residue, firearm position in cases of shooting), etc., should be closely observed and documented. Additionally, it's critical to be able to identify items that should be at the crime scene but aren't, such as the victim's purse, watch, ornaments, vehicle etc.

In the same way, items that seem out of place and may have been left by the offender should be noted. Details like the license (identity) number, key position, gear shift position, steering position, meter reading, fuel level, lights on or off, etc., should be documented if a vehicle is involved in a crime. On hard floors, the oblique lighting approach is a useful indoor lighting method. A decent flashlight with a powerful, focused beam was all that was required for this procedure. Make use of this light, which is nearly parallel to the floor and simply stretches out across it.

After that, the light is adjusted. Any evidence, including shoe prints and trace evidence, will show up dramatically even though they might

not be apparent at all in regular lighting. The ceiling should be thoroughly examined in addition to the floor. It can pick up important evidence like bullet holes and bloodstains. The conditions of crime scenes can be documented using photography and videography. It may offer a clearer view of the layout of the crime scene. In order to demonstrate the shape, size, and location of the evidence as well as its significance to the crime scene, photography and videography should start with a broad overview of the scene and its surroundings. They will then use wide-angle and close-up (long, middle, and close-up range) shots to cover the crime scene.

### **Conclusion:**

An essential component of any investigation is the examination of the crime scene. It is where logic, law, and science all come together. All items that can prove or disprove the existence of a crime or establish a connection between a crime and its offender or victim are considered physical evidence. The crime site is where forensic science starts. In this case, investigators need to appropriately preserve and identify the evidence for laboratory testing. Securing the crime scene is the first responding officer's main responsibility. Following the site's protection measures, the appropriate investigators document the crime scene by taking pictures, sketching, and taking notes. The investigator should perform a preliminary analysis of the crime scene as left by the offender before processing it for physical evidence.

A crime scene must be thoroughly and methodically searched for tangible evidence. The size of the scene, the location, and the number of collectors involved in the search all influence the search pattern that is used. Anything from massive things to minute remnants might be considered physical evidence. Many pieces of evidence are frequently readily apparent, while others can only be identified through analysis in a crime lab. Because of this, it's crucial to gather

<sup>2085</sup> Bruce L. Berg, Criminal Investigation, Fourth Edition, pg.no 39, 40

potential carriers including clothing, vacuum sweeping, and nail clipping in addition to the more obvious objects. Every distinct or comparable item gathered from several locations needs to be put in its own container. Individually packaging evidence avoids both cross-contamination and contact damage.

A record of the evidence's whereabouts must be kept by the chain of custody at the time of evidence collection. For comparison at the crime scene and in the lab, adequate standard/reference samples, such as hair, a buccal swab, and fiber, must be taken from appropriate people. Following the proper search and seizure protocol is essential when removing any evidence from a person or crime scene. The investigator's lack of scientific expertise on how to properly gather, preserve, store, and transport crime scene evidence can lead to inappropriate analysis, which lowers the evidence's value in court. A biological sample's purity and quantity, rate and level of degradation, and other elements all play a part in producing a satisfactory report. "No biological evidence is immune to degradation." As a result, careful gathering and packaging of crime scene evidence might yield valuable insights. Therefore, it is crucial to take the right precautions when gathering and preserving evidence from crime scenes. It is hoped that this analysis would assist law enforcement and forensic experts in handling crime scene evidence to prevent contamination, deterioration, and loss of biological evidence's value.<sup>2086</sup>

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<sup>2086</sup> <https://www.researchgate.net/crime-scene-investigation>