Journal of Advances and Scholarly Researches in Allied Education
Vol. 16, Issue No. 1, January-2019, ISSN 2230-7540

Investigating the Activities, Procedure and Searching Physical Clues of Crime Scene

Dr. Rakesh Kumar Ray*

Assistant Professor, Department of Forensic Science, Swami Vivekananda University, Sagar, MP

Abstract – An extraordinary climb in greatness of crimes has been seen during most recent couple of years everywhere throughout the country. It is finished up from the survey of writing in the present examination that there are extremely less research work has been done in India particularly thinking about the importance of forensic evidence. This situation recommends the solid need of evaluating the present working of our crime investigators and forensics. Forensic science assumes a crucial role in crime investigations and court procedures. The present investigation is directed to assess court judgments to find that up to what degree the Forensic Science Laboratory reports were helpful and powerful in conveying judgments to Criminal Justice System. To acknowledge completely the potential estimation of physical evidence, the investigator must have a comprehension of the contrast among class and individual attributes. At the point when the attributes of physical evidence are regular to a group of items or persons, they may be named class. The main aim of this paper is to Investigating the protection, documentation, sketching, preservation, packaging, forwarding and search for physical clues of crime scene. The Notwithstanding how altogether analyzed, such evidence must be put into a general classification; an individual identification can't be made as there is a probability of more than one source for the material discovered ' Examples of this sort of evidence incorporate blood, hair, soil, glass fragments too little to be in any way coordinated to broken edges, and device narks or shoe prints in occurrences where infinitesimal or coincidental markings are inadequate for positive individual identification. Evidence with individual qualities can be recognized as having started with a particular person or source; it is the capacity to establish individuality, which distinguishes this sort of physical evidence from that having just class attributes.

Keywords – Crime, Scene, Investigation, Criminal, Justice, Forensic Science

----------X----------

1. INTRODUCTION

The investigation of crime is in certainty a dynamic procedure of detailing and testing of theories of crime. A hypothesis is planned in the light of the scene of crime and the data got from the person in question, suspects, onlookers, and others present there before arrival of the Investigating Officer. The mastery and experience of the Investigating Officer additionally assumes an important role in detailing the hypothesis. The crime scene investigation yields physical hints of crime. The hypothesis is tried in the light of the New actualities accessible from the investigation of the scene of crime. In the event that the realities do not fit in the hypothesis, it is changed and tried again after scientific assessment of the physical intimations. Extra data, as and when accessible, require the testing and amendment, if necessary, of the hypothesis of crime. This procedure proceeds until the crime is reproduced and unraveled. A systematic and steady investigation of the scene of crime is of fundamental significance in testing and verifying the hypothesis of crime past sensible questions. The physical intimations of crime give answer to the who, what, when, where, why, and how inquiries of occasions and elucidate the circumstances of a crime.

2. ACTIVITIES OF CRIME INVESTIGATION SCENE

The objective of crime scene investigation is to help establish what happened and to identify the perpetrator. Crime scene investigation is a difficult and time-consuming job and there is no substitute for careful and. thoughtful approach. The crime scene investigation can be divided, broadly, into the following activities:-

2.1 Protection of the Scene of Crime

The most important part of evidence gathering and safeguarding is ensuring the crime scene. This is to keep the appropriate evidence uncontaminated until it very well may be recorded and gathered. The fruitful prosecution of a case can rely on the condition of the physical evidence at the time it is gathered. The insurance of the scene starts with the arrival of the main cop at the scene. While moving

toward the scene of crime the Investigating Officer, ought to be alert for disposed of evidence. The methodology and escape courses ought to be examined cautiously. He should assume responsibility for the crime scene and ought to determine the degree to which scene has up to this point been secured. The data in regards to any change/aggravation ought to be acquired from persons, who have entered the scene before the arrival of the Investigating Officer, to know the original conditions. The crime scene and whatever other areas, which may yield valuable evidence, ought to be restricted to avoid any further unsettling influence of the scene and contamination of potential physical pieces of information. Unauthorized persons ought not to be permitted to enter the crime scene and a record ought to be kept of the individuals who enter/leave the crime scene.

2.2 Documentation of the Crime Scene Conditions

The reason for the perception and documentation of crime scene conditions is to take note of the area of potential evidence and to mentally plot how the scene will be examined. The crime scene conditions ought to be painstakingly watched and transient details, for example, lighting (on/off), and paper. on the entryway/in-house, shades (open/shut), climate, temperature, movement of furniture, or other disturbances endeavored in the life-sparing endeavors, conditions which would bolster or discredit suicide/self-preservation (shot residue, position of firearm in instances of shooting), and so on ought to be recorded. It is additionally important to have the option to perceive what ought to be available at a scene of crime yet is not there, for example victim's purse, watch, ornaments, vehicle, and so on. Essentially, the items, which give off an impression of being strange and might have been left by the culprit, ought to be observed. On the off chance that vehicles are engaged with a crime, details of permit (identification) number, position of key, gear move position, meter perusing, steering position, measure of fuel in the tank, lights turned on or off, and so on ought to be recorded.

A decent technique to utilize inside on hard floors is the oblique lighting technique (otherwise called side lighting). A decent spotlight with a solid concentrated bar is the main instrument required. The electric lamp is held around one inch from the floor. The pillar is then calculated with the goal that it just spreads over the floor surface and is practically parallel to the surface. The light is then moved forward and backward. Any evidence, for example, follow evidence and shoeprints, will show up significantly. Under ordinary lighting conditions, this evidence might be scarcely obvious or very undetectable. Notwithstanding the floors, the roof ought to likewise be examined extensively. This may yield such valuable evidence as blood spatters and bullet holes.

2.3 Photography/Sketching of the Scene of Crime

After the preliminary review and perception of the crime scene has been conducted, it ought to be recorded thoroughly by photography/sketcl1ing. It might be mentioned here that regardless of whether the recording of the scene of crime has been done, it is essential that still photographs be taken. The photographs of numerous physical hints like fingerprints, impressions, blood spatters, bullet holes, and so forth are essential for the examination and assessment of the significance of the pieces of information. Before capturing, it ought to be painstakingly arranged and all the photographic endeavors ought to be recorded systemically. The in general, medium, and close-up perspectives on the scene ought to be photographed progressively. Reasonable scale or other size assurance devices ought to be utilized, at whatever point material. Areas adjoining the crime scene, for example purpose of passage and exit, and so forth ought to likewise be photographed. In the event that feasible, endeavors ought to be made for ethereal photography too. The things, places, and so forth that substantiate the statement of observer, victim and suspects ought to likewise be photographed. One ought not to delay to photo notwithstanding something, which has no obvious significance around then, since it might demonstrate to be important later. The photographs ought to be taken from eye level when feasible so they display the scene, as it would be seen by ordinary view. The physical pieces of information ought to be photographed set up before its collection and packaging utilizing size assurance device, if fundamental.

2.4 Search of the scene of crime for physical clues

The things mentioned above are some regular instances of physical evidence that an investigator may experience. They can be examined with respect to both their class attributes and their individual qualities. The class attributes serve to sort the evidence itself. A tire impression might be recognized as having been made by a specific make and model of tire dependent on the track design. A murder weapon might be distinguished as a caliber.38 exceptional dependent on the width and weight of the bullet. Of these distinguishes neither a particular tire nor weapon, however it narrows them down to a restricted class inside the general classifications of tires and firearms. Individual qualities are these that recognize a particular thing or person. Through wear, a tire will create scratches and abnormalities in the track that will separate it from every other tire and each weapon barrel will grant its very own remarkable example of striations to the bullets it discharges. In spite of the fact that the class qualities are helpful, the best estimation of physical evidence lies in its capacity to individualize. The more individual qualities a thing has, the littler

the probability is that it can happen twice in a similar structure. For instance, a touch of white cotton fiber found under a victim's fingernail would be of generally little esteem since cotton is available in such a significant number of textures, though a reasonable fingerprint found on a murder weapon can be of extraordinary esteem since it is one of a kind. The ideal piece of evidence would be one that recognizes a particular person as the blameworthy party. Unfortunately, the ideal case only from time to time happens. Indeed, even the fingerprint on the murder weapon just proves that someone in particular dealt with the weapon, not that the individual committed the murder.

Types of Physical Evidence –

The following types of physical evidence may be found in diverse types of crimes:

- **Blood, semen and other physiological fluids**: All suspected blood, semen, and other physiological fluids, whether liquid or dried, creature or human might be available to propose a connection to the offense or person engaged with a crime.
- **Fingerprints:** All scenes of crime chance prints may help to identify the criminal. Fingerprints may also help to identify victims.
- **Footprints**: May establish presence of suspect at the scene of the crime. It might give data on the quantity of suspects and their identification.
- **Teeth marks**: Teeth marks on the. Fruits or other food or bite marks on the victims may lead to identification criminal.
- **Impressions**: Tyre marks or track marks may make it possible to identify the vehicle suspects in an offence.
- **Documents**: Any written by hand or typewritten document submitted to determine realness or source. It will incorporate paper, ink, indented works, obliterations and burned or charred documents.
- **Drugs**: Include any substance in the form of powder, pill, capsule, vial, etc., seized in cases of poisoning or trafficking and/or violation of laws regulating the sale, manufacture, distribution or their use.
- **Explosives:** Any device containing an explosive substance, as well as all objects removed from the scene of an explosion that are suspected to contain the residues of an explosive.
- **Fibres and fabric**: Any regular or synthetic fiber whose move might be valuable in establishing a connection among articles or potentially persons. On the off chance that a sufficient bit of a fabric is discovered, it might be appeared to have been torn from a particular garment.
- **Firearms and ammunition**: Any firearm, released ammunition, for example, bullets, shells, wads and pellets or even flawless ammunition suspected of being associated with a criminal offense may empower the master to recognize the weapon and the ammunition with the offense.
- **Glass**: Any glass molecule or fragment that may have been moved on a person or item associated with a crime and window sheets of structures or vehicles containing holes made by a bullet or other projectile are incorporated into this category.
- **Hair**: Any animal or human hair present that could link a person with a crime.
- **Viscera**: Body organs and fluids submitted for toxicology examination to detect possible presence of drugs and poisons. This category will include blood for the presence of alcohol and other drugs.
- **Paint**: Any paint, liquid or dried, that may have been transferred from the surface of one object to another during the commission of a crime.

2.5 Preservation, packaging and forwarding the physical clues

Most things of evidence will be gathered in paper compartments, for example, parcels, envelopes, and packs. Liquid things can be transported in non-weak, watertight compartments. Pyro-crime evidence is generally gathered in sealed shut, clean metal jars. Just huge amounts of dry powder ought to be gathered and stored in plastic sacks. Wet or wet evidence (blood, plants, and so on.) from a crime scene can be gathered in plastic holders at the scene and transported back to an evidence getting area if the storage time in plastic is two hours or less and this is done to forestall contamination of other evidence. Once in a protected location, wet evidence, whether bundled in plastic or paper, must be evacuated and permitted to totally air dry. That evidence would then be able to be repackaged in another, dry paper compartment. By no means should evidence-containing moisture be packaged in plastic or paper containers for more than two hours. Moisture permits the development of microorganisms, which can pulverize or modify evidence.

Any things, which may cross defile one another, must be bundled independently. The holders ought to be shut and verified to avoid the mixture of

evidence during transportation. Every holder ought to have the gathering person's initials; the date and time it was gathered; a total portrayal of the evidence and where it was found; and the investigating agency's name and their record number.

3. HOW A CRIME SCENE INVESTIGATION IS PERFORMED

The circumstances that investigators experience at the scene will largely dictate the approach used to process the scene. A murder will probably require diverse treatment and processing than a robbery. Be that as it may, to guarantee a thorough procedure, the seven stages sketched out underneath are regularly pursued. These means can be conducted in an alternate order, combined or even skipped altogether to address the issues of the situation.

3.1 Establish the scene dimensions and identify potential safety and health hazards

Investigators at first find the "focal point" of the scene, the primary area of aggravation. This could be a stripped room, the area where an assault happened, or the room wherein a victim was found. Transmitting out starting there, investigators establish an area that is sizeable enough to probably contain all significant physical evidence that might be available. It is simpler for investigators to condense the size of a scene at a later point than to find that delicate evidence outside the scene has been damaged or destroyed by different responders, media or spectators. Likewise, potential ways of perpetrator passage/exit are recognized. Safety is of vital importance during the underlying approach to the scene. Weapons, biohazards, compound hazards and even purposeful traps could be sitting tight for responders. In the event that therapeutic, fire or coroners will be on scene, they should be prompted seeing evidentiary issues too.

3.2 Establish security

According to Locard's Exchange Principle, each person who enters or leaves the scene will include or subtract material from the crime scene, so it is crucial to quickly verify the area. To control get to, the scene might be cordoned off with yellow crime scene tape, cones or by different methods. What's more, a typical gateway is frequently established that all crime scene personnel will use to enter and leave the scene and all individuals entering or leaving the scene are documented once the limits have been established. Extra areas for consultation and evidence storage may likewise be established if fundamental.

3.3 Plan, communicate and coordinate

Before gathering evidence, investigators should initially build up a theory regarding the sort of offense that happened. Knowing the kind of crime will enable investigators to envision the evidence that could be available. This may require gathering information from observers or persons of intrigue. In light of this information, the crime scene group will build up an evidence-collection technique mulling over climate conditions, time of day and different factors. Extra forensic resources may likewise be mentioned to deal with special situations.

3.4 Conduct a primary survey/walkthrough

An underlying overview of the scene is then conducted to prioritize evidence collection. During this walkthrough, the lead investigator will recognize potentially valuable evidence; take notes and catch beginning photographs of the scene and the evidence. The crime scene is documented to record conditions, for example, whether lights were on or off, the situation of shades and doors, position of versatile furnishings, any scents present, the temperature of the scene, and so forth. To encourage this procedure, crime scene specialists may make a without evidence pathway prompting the primary area of enthusiasm by directing a thorough breadth for evidence in that area.

3.5 Document and process the scene

With an arrangement set up, the crime scene group leads a thorough, coordinated investigation of the scene, gathering all probative evidence. This involves point-by-point documentation with advanced and camcorders or, if accessible, a 3-D scanner. Situations, outlines and charts are likewise made. During the evidence-collection process, it is crucial that the crime scene investigator pursue legitimate techniques for gathering, packaging and safeguarding the evidence, especially in the event that it is of an organic sort. Natural evidence can be destroyed or damaged by climate conditions, individuals can unintentionally contaminate it, or it very well may be overlooked completely if interchange light sources are not used to assess the scene.

Figure 1 - Crime Scene Investigation

4. CONCLUSION

The physical clues of crime gathered from the scene of crime/victim/perpetrator are the most valuable evidences to corroborate/demonstrate different circumstances of the crime. In this manner, the collection of significant physical clues from the scene of crime and from different sources like the victim

and so on is important. Notwithstanding, apparently straightforward errand of gathering physical clues of crimes requires a scientific approach and scientific information. The evidence, which is destroyed, traded off or left at the scene of crime, cannot add to the arrangement of the crime. Scientific inquiries should be framed right on time during the crime scene investigation. Without the correct inquiries, being attentively and painstakingly framed there is a little any expectation of finding all the significant solutions to corroborate. Demonstrate, or recreate the circumstances of crime. On the off chance that physical clues are not searched cautiously and important inquiries are not framed, in addition to the loss of valuable information, misleading information might be generated.

There has been appreciable development and advancement in the scene of crime innovation in the ongoing years. The greater part of the advancement in this field is worried about expanding utilization of lighting and imaging techniques in the underlying examination of crime scenes. Lasers were favored as lighting source to search and record the presence of fluorescent piece of information materials. Nevertheless, with the development of fantastic obstruction type hindrance channels of radiation solid sources like Xenon curve lights are utilized to get radiation of little data transfer capacities in various areas of the range. The accessibility of various recurrence groups of radiation from the lighting source facilitates creating contrast/fluorescence for search of duty on various substrates out of sight. In addition, it permits the recognition and separation of firmly related examples. The short wave ultraviolet reflection photography has likewise been utilized successfully to identify and improve idle fingerprints on different substrates.

5. REFERENCES

1. Sabyasachi Nath and H.K. Pratihari (2018) – “Gang Rape and Murder”, Journal of Forensic Sciences & Criminal Investigation ISSN: 2476-1311.

2. Government of Canada. (2017) – “Conspiracy. Retrieved January 11, 2017”, from http://laws-lois.justice.gc.ca/eng/acts/C-46/section-465.html

3. Bennett, M. (2015) – “Unspringing the witness memory and demeanor trap: What every judge and jury needs to know about cognitive psychology and witness credibility”, Wahington: American University of Law.

4. Welding S. (2012) – “Locard’s exchange principle”, Forensic Handbook.

5. Ritter, N. DNA (2010) – “Solves Property Crimes (But Are We Ready for That?)”, *NIJ Journal*. [Online].

6. Essentials of Crime Scene Investigation (online training program). National Forensic Science Technology Center, Largo, FL (2011).

7. Nordby J. J. (2006) - “Final Analysis Forensics”.

8. Scientific Working Group on Bloodstain Pattern Analysis (2009) – “Scientific working group on bloodstain pattern analysis: recommended terminology. FBI-Standards and Guidelines”.

9. (2004) - “The use of BPA modeling in investigations”, Peter Lamb, p. 8.

10. (2004) - “City of windsor homicide case. Scott Lamont”, p. 11.

Corresponding Author

Dr. Rakesh Kumar Ray*

Assistant Professor, Department of Forensic Science, Swami Vivekananda University, Sagar, MP