

CHAPTER 7

Powers and duties of Investigation

Power to investigate cognizable and non-cognizable offences

- 154-1.** A police officer in charge of a police station is empowered to investigate every cognizable offence within the jurisdiction of that police station. Even if the police officer investigates a cognizable offence registered in his police station but beyond that jurisdiction, it cannot be questioned.
2. If a police officer intends to investigate a non-cognizable offence, he can take the orders of the court and investigate, but he shall have no power to arrest without a warrant.

Action when instructions received from the Court.

3. The Magistrate may under section 156(3) Cr.P.C. order the police officer to investigate any cognizable offence. Further, any Magistrate may direct an investigation to be made by a police officer on a private complaint received by him, of an offence, which may be either cognizable or non-cognizable. In both the cases referred for investigation either under section 156(3) or under section 202 Cr.P.C., the police officer has to necessarily register the crime in his police station and issue FIR immediately before taking up investigation. When a matter is referred by a Magistrate to a police officer under section 202 Cr.P.C., it is only that police officer, to whom the matter is

referred, has to investigate that particular case and he cannot further endorse the crime for investigation by any other or subordinate officer. After completing the investigation, the police officer in both the types of cases, has to submit his police report to the Magistrate under section 173 Cr.P.C.

Visit scene of Crime without delay

4. After registration of the offence and sending FIR, the police officer has to proceed in person or he shall depute one of his subordinate officers to proceed to the spot for investigation and also for taking measures for discovery and arrest of the offender (section 157 Cr.P.C.). In case the offence is not of a serious nature, the police officer need not proceed in person or depute a subordinate officer to make investigation on the spot. (Section 157 Proviso (a) Cr.P.C.). If it appears to the police officer that there is no sufficient ground for entering on investigation, the police officer need not investigate such a case (Section 157 Proviso (b) Cr.P.C.). Where the police officer does not investigate the case as no sufficient ground for investigation is found, then the police officer shall prepare case diary and send final report.

Further investigation

1. Even after submitting final report under section 173 (2) Cr.P.C. either by way of charge sheet or by way of final report the police officer is not precluded from collecting further evidence of the offence during further investigation. In case the police officer finds any relevant oral or documentary evidence even after filing charge sheet, the police officer has to forward the same to the Magistrate

by way of further report, which is generally termed as supplementary information or supplementary charge sheet under section 173 (8) Cr.P.C.

Investigation to be impartial

6. Investigating officers should have open mind in their investigation. It must be understood that the aim of investigation is only to find out the truth.

Examination of the scene of offence and incident control

155-1. As soon as the information about an offence is reported, SHO shall, by quickest available means, proceed to the scene of offence after registering the FIR or making arrangements for the same depending on the nature of offence reported. It is important that the Investigating Officer and his team proceeds to the scene of crime as expeditiously as possible and perform their respective functions. Particular care should be taken for preservation of the scene, collection of all material and other evidence. Steps should also be taken for arrest of accused or pursuit of the accused if warranted and justified for the investigation of the case. The instructions of the I.O investigating the case and authorized to investigate that case shall be complied with by all subordinates concerned.

2. The search of the scene and its surroundings should be made patiently, methodically and in a definite order and not in a hurried or haphazard way lest valuable clues are missed or lost.

Special attention should be paid to the floor, walls, ceiling, window sashes and all protuberances and edges, which are likely to bear traces. Nothing capable of bearing fingerprints or other trace should be ignored.

Protection of Crime Scene

156-1. The first action of the investigating officer who first reaches the scene should be to secure the crime scene from unauthorized persons by setting up barricades/tapes and cordoning off the area required. The best physical evidence is normally found at the place where use of force against persons or property has taken place. Sometimes valuable pieces of evidence may be discarded or dropped or it may fall off accidentally or inadvertently at some distance from the scene of crime. Such spots also need proper protection. All such critical areas should be secured from intruders and stray animals or neighbors, friends, sympathizers, curious onlookers, newspaper reporters, press photographers and others who are not officially connected. The whole area should be cleared of all unauthorized persons in quickest possible time. The Press and other Media should be requested to keep beyond the barricaded/secured area. The following steps should be taken for protection of the scene of the crime:

- A. Cordon off the scene and surroundings, access and exit points effectively.
- B. Identify and persuade to retain the person who first informed

the Police. Otherwise, note his address, telephone number etc.

- C. Persons who are likely to provide information, investigative leads and other pertinent details should be segregated and examined for collecting all possible information, Eye-witnesses should be requested and allowed to stay at earmarked place for examination.
- D. Physical evidence should be protected from pet animals like dogs, cats, rabbits, etc., and also rats, mice and birds, as also from adverse environmental influences such as wind, rain, sunlight, dust, smoke, moisture, etc.
- E. No physical evidence should be disturbed from its original position without properly recording it. Jewellery, keys, currency notes and other valuable items with evidentiary value, vulnerable to theft from the scene, should be removed and preserved after a seizure list is drafted.
- F. During the preliminary inspection of the crime scene care should be taken to ensure that nothing is inadvertently dropped such as cigarette butts, match sticks, empty packs of cigarettes, match boxes, ash, etc. and nothing is touched that may cause interference with the fingerprints, footprints, etc., and nothing is added such as hair etc.
- G. All physical evidence/traces should be lifted only after recording and thoroughly searching the crime scene. Where traffic is to be restored or place required for use, the examination of scene and other work should be completed as expeditiously as possible but with thoroughness.

H. It should be borne in mind that evidence may not always be visible to eye. Even if visible, it may escape a non-observant eye or may not appear relevant. It is therefore necessary that the scene or places be subjected to close scrutiny both by experts and the Investigating staff.

First aid to the injured

2. In the event of a person being dangerously wounded, the Police Officer who first arrives on the scene should render such first aid as is possible and necessary, without in any way disturbing the crime scene and take immediate steps to procure medical aid or send the wounded person without loss of time to the nearest hospital or dispensary for treatment. This should be done before entering on the formalities of the investigation etc., as the delay thereby incurred might cause serious risk to the life of the person so wounded. In nearly all cases, it should be possible for the Investigating Officer to note the position and nature of the injuries while arrangements are being made to procure medical aid or to send the injured person to a hospital.

Preservation of evidence

3. Simultaneous steps should be taken to preserve all valuable items or objects of evidentiary value at the scene. This is vital, as certain types of evidence is likely to get evaporated, decomposed, putrefied, degenerated or may undergo other chemical or biological changes with

time and other environmental factors. Suitable containers like polythene or glass bottles, polythene bags, paper envelopes, aluminum foils, etc. and preservative substances should be kept ready for proper preservation of evidence. Depending on the nature of evidence suitable preservatives should be added under expert advice.

Examples: Tissue samples should be preserved in 20% Dimethyl Sulphoxide saturated with Sodium Chloride for DNA analysis and Viscera should be preserved in saline etc.

Recording of the Crime Scene

157-1. The police have a limited time and opportunity to make an in-depth study of the crime scene in an undisturbed state. No time should therefore be lost to record as accurately as possible the conditions existing when investigating officer arrives at the scene. Such a record will help the on-going investigations, reconstruction of the scene of crime and also presentation in the Court. The judiciary and defense counsel need convincing evidence to substantiate the conditions and circumstances reported prevailing at the time of the crime. It is therefore necessary to make a visual presentation that shows the various evidentiary items, witnesses and their interrelationship with the scene of crime. The methods of crime scene recording are Photography, Sketch, Observation notes, Videography and Audio tape recording.

Analog or Digital Photography

2. Photography is a useful method to make a permanent record of the crime scene and facilitates the reconstruction of the crime

scene and description of the method by which the crime was committed. Photography is the best method of recording, serving several purposes including:

- A method of recording and storing information more accurately and for a much longer period than the human mind.
 - A method by which evidence of transient and perishable nature can be recorded.
 - A method by which certain details of evidence not normally perceivable by the human eye can be arrived at.
 - A method by which vital and crucial facts can be illustrated two dimensionally.
3. Digital photographic cameras facilitate quick reviews and recall of photographs on the screen and also permit transfer of data to FSL, or any other location through computer and modem. Hence the IOs should prepare to capture the crime scene photo through Digital cameras.
 4. As per section 9 of the IE Act, photographic evidence is admissible to explain or introduce a fact. To ensure that the facts recorded by the photographic process represent a truthful picture, they should be (a) relevant and material to the case (b) faithful and truthful reproduction of facts, events, evidence etc. (c) free from distortion with correct tones, perspectives, positions and interrelationships and (d) should not be of a nature that arouses undue prejudice or sympathy.

How photographs should be taken

5. The scene of crime is available for a limited period only, with no

scope for trial and error. Care is essential to obtain as much information from it as possible, as early as possible both by still photography and videography.

- A. The scene of crime should be kept undisturbed before taking the photographs.
- B. The working condition of camera, lens, flash, batteries, film, etc. should be checked before attempting any photograph. The film or other recording medium such as tape, floppy, CD-R etc. used should be appropriate for the lighting conditions and capabilities of the camera.
- C. Before commencing the work, the whole area should be inspected and all the shots required should be carefully planned.
- D. While planning the number of shots, ensure that enough overlapping shots are included to sequentialise the scene.
- E. Initially sufficient number of shots should be taken to give an overall perspective of the place of occurrence, approach to the place, entry, access and exit points.
- F. While photographing evidentiary items, indoors or outdoors, enough overlapping shots and close-up shots should be taken to bring out interrelationships and to capture minute details. It is better to have three views taken viz.; overall view, mid-range view, and close-up view of all important items of evidence.
- G. All photographs should be taken at eye level. In some unusual cases aerial views or below normal views may be taken depending on the crime scene and surroundings.

- H. The chance fingerprints, footprints, etc. left at the scene of crime, should always be exposed from a close distance.
- I. A scale or foot rule should be placed beside evidentiary items such as footprints, knife, injuries, cut marks, etc. to indicate the actual size in the enlarged photograph.
- J. It is worthwhile to include separate numbered cards or plates for each evidentiary item so as to ensure proper identification at a later stage.
- K. After unloading the film and any other recording medium, it should be properly labeled, with details of the place, event, police station, date, case number, etc.
- L. The observation notes should cover the following points: -
- Name of the photographer and address
 - Date and time each photograph was taken
 - Distance maintained between the lens and the object and direction
 - Technical information such as Type of Camera, Focal length of lens, Speed of the lens, Effective aperture, Shutter speed, Film speed, Type of Flash. Similar information should also be maintained to digital still or video cameras.
 - Special techniques such as oblique light, flood lamps, flashlight, UV light, Filters etc., if used, should be noted against each shot.
 - Light and weather conditions in cases of outdoor shots.

Videography and Audio Tape Recording

6. Like photography, videography and audio tape recording are useful in making a record of a crime scene, which help in scene reconstruction at later stage. In certain crimes like arson, videography provides an overall view of the scene and allows investigators who could not be present at the scene to visualize the important pieces of evidence and their relationship to one another. Videotaping should be used to supplement the information that is collected from other recording procedures viz., photography, digital photography, sketching and observation notes. It is also possible to locate certain minute pieces of evidence recorded immediately after the incident but overlooked for collection. The process of video documentation is similar to still photography.

In a burglary case for example the Videography should start at the actual/suspected point of entry, cover the crime scene, point of exit and line of retreat. All-important spots can be focused through a zoom lens and more time can be allotted to cover from all angles. Further the *voice recording* capability can be used to describe what is seen while recording simultaneously. This capability can be also used in presenting to the Court to serve as a convincing proof. All the precautions suggested earlier for photography should also be followed for these recordings.

Sketching the Crime Scene

158-1 After the scene is photographed, it should be sketched, to provide measurements indicating the relative distance and position of the various items of evidence and their interrelationships.

2. The sketch is the first visual record of the condition of the crime scene. It portrays the crime scene and items within that scene that are of interest to the investigation. Sketches properly prepared are useful during the interrogation of witnesses, in making notes in the case diaries and in presenting information to the court. The sketch complements the photographs and notes made while observing the crime scene. The ultimate purpose of the crime scene sketch drawn as per set scale and plan, which is also known as crime scene planning, is to represent the facts of the crime with such clarity and precision that the crime itself may be reconstructed from the details. Courts rely to a great extent on sketch of the scene prepared.

3. The Investigating Officer should make a rough sketch of the crime scene on the basis of his own observation but not what is stated to him by witnesses as such a sketch will be hit by 162 Cr.P.C. Even if the sketch contains some out of his own observation and some out of what is stated by witnesses, such sketch will be inadmissible in courts, as admissible part cannot be separated from inadmissible part. The sketch need not be drawn to scale, but should indicate accurate distances between objects, dimensions of areas and relative directions. The items to be included in the sketch and the number of copies should be determined at the outset. All sketches should cover the following aspects.
 - A. In the case of indoor scenes, the size of the window(s) and room(s) and in the case of outdoors, area dimensions with reference to some fixed objects like trees, electric or telephone poles, lamp posts or other landmarks should be indicated.

- B. The approach to the crime scene such as roadways, streets, by lanes, pathways, etc. should also be drawn to facilitate reconstruction.
- C. The orientation of the scene with reference to “magnetic north”.
- D. The apparently visible items should be indicated by accurate measurement from at least two fixed points.
- E. The position of eyewitnesses and accused persons and places indicating all stains, footprints, tyre or drag marks and other objects of victim or accused.
4. The following information must invariably be mentioned on the sketch.
- The ‘investigator’s full name, rank, address.
 - Crime number, section of law, police station, and district
 - Address of the crime scene, its position in a building, landmarks and compass direction
 - The visible items of physical evidence and critical features of the crime scene. A legend to the symbols may be used to identify objects or points.
5. The rough sketch once drawn should not be altered. A smooth or fair sketch should be prepared on the basis of the rough sketch. The smooth sketch also known as crime scene plan drawing is prepared as per a convenient scale and plan from the details of rough sketch. Color drawing will be helpful to distinguish various objects or the features of an object.

Methods of sketching

6. It is important that measurements shown on the sketch are as accurate as possible and are made and recorded uniformly. An erroneous measurement becomes difficult to explain and can introduce doubt in the minds of judges and others concerned not only regarding the authenticity of the crime scene processing, but also the competence of investigator. The investigator should therefore follow a standard method of sketching depending on the nature and background of a case. Standard methods normally adopted for sketching are described below.

A. **Coordinate Method or Baseline Method:** This method uses the principle of measuring the distance of an object from two fixed points. The fixed points are normally selected in such a way that they are straight and most of the evidence is located in the vicinity. The line joining these points is known as the baseline. In indoor scenes one side of a wall of the room where the crime occurred can be taken as the baseline. In outdoor scenes any two trees or other fixed points can be joined and taken as the baseline. Once the baseline is fixed all measurements should be taken by drawing a perpendicular line from the evidentiary item to the baseline. The distance between the nearest fixed point and the point where the perpendicular line meets the baseline should also be taken. These two measurements will help locate and fix the position of each item and its relationship with other items. The method is illustrated in figure 1.

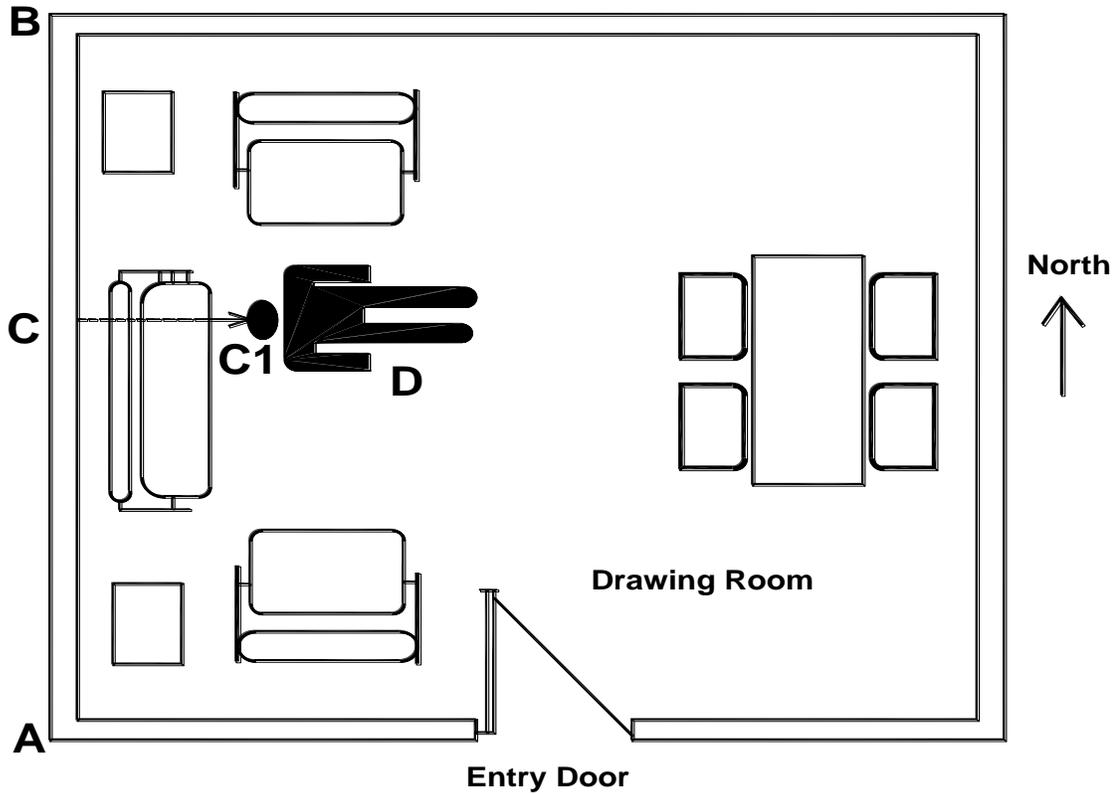


FIG.1: BASELINE OR COORDINATE METHOD

- A, B - Two fixed points (coordinates)
- AB - Baseline (side wall): D - Dead body
- CC1 - Perpendicular distance between the head portion of the dead body and baseline measured at floor level.
- BC - Distance between nearest fixed point and the perpendicular line.

B. **Triangulation method:** This method is particularly suitable for outdoor locations. Two or more fixed points should be located and they should be as widely separated as possible. The evidentiary item need not be very close to the fixed point but should be located by measuring along a straight line from the

fixed points. The method is illustrated in figure 2.

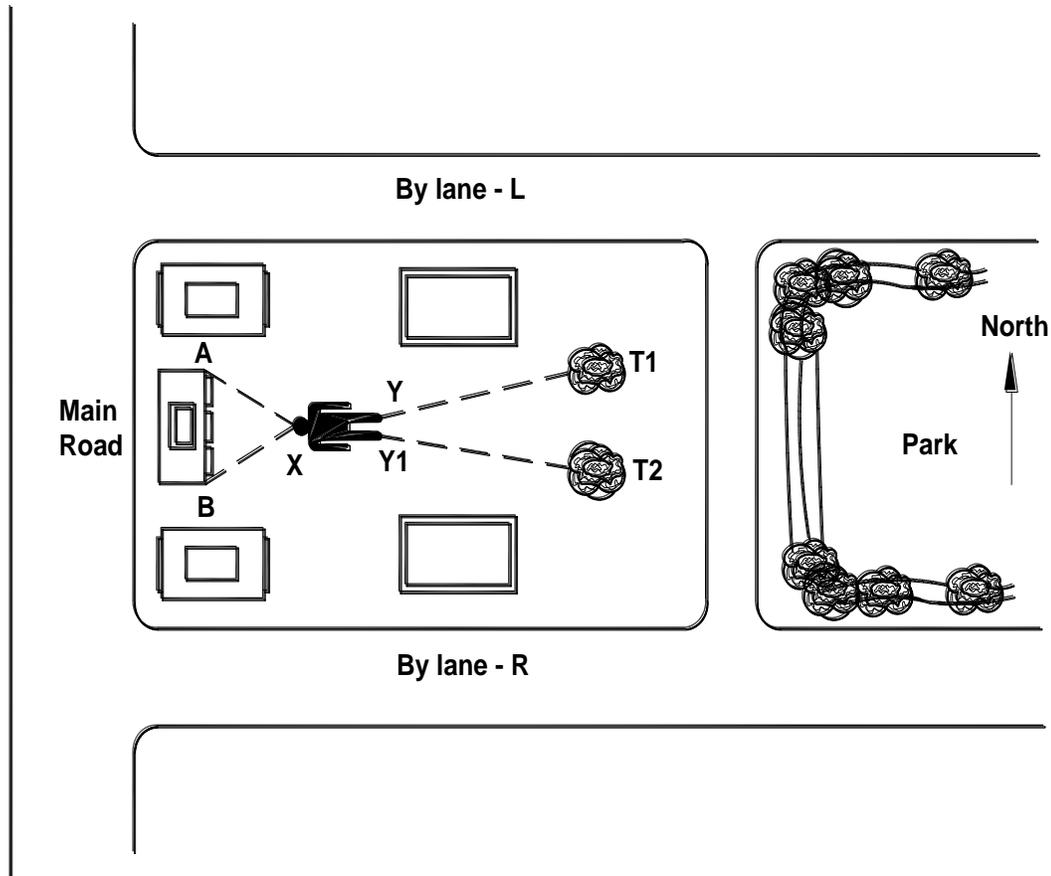


FIG.2: TRIANGULATION METHOD

- AB - Two fixed points of the building
- T1,T2 - Two trees
- AX,BX - Distance between two fixed points to the head of deceased.
- T1Y, T2Y1 - Distance between the two trees to the legs of deceased.

C. **Cross-projection method:** The cross-projection method of sketching is useful when the evidentiary items are on the ceiling, wall or elsewhere in an enclosed space. The walls, windows and doors in a cross projection sketch are drawn as though the walls are extended flat on the floor. The measurements are taken from any two wall

corners or roof corners to the evidentiary item. This method is illustrated in Figure 3.

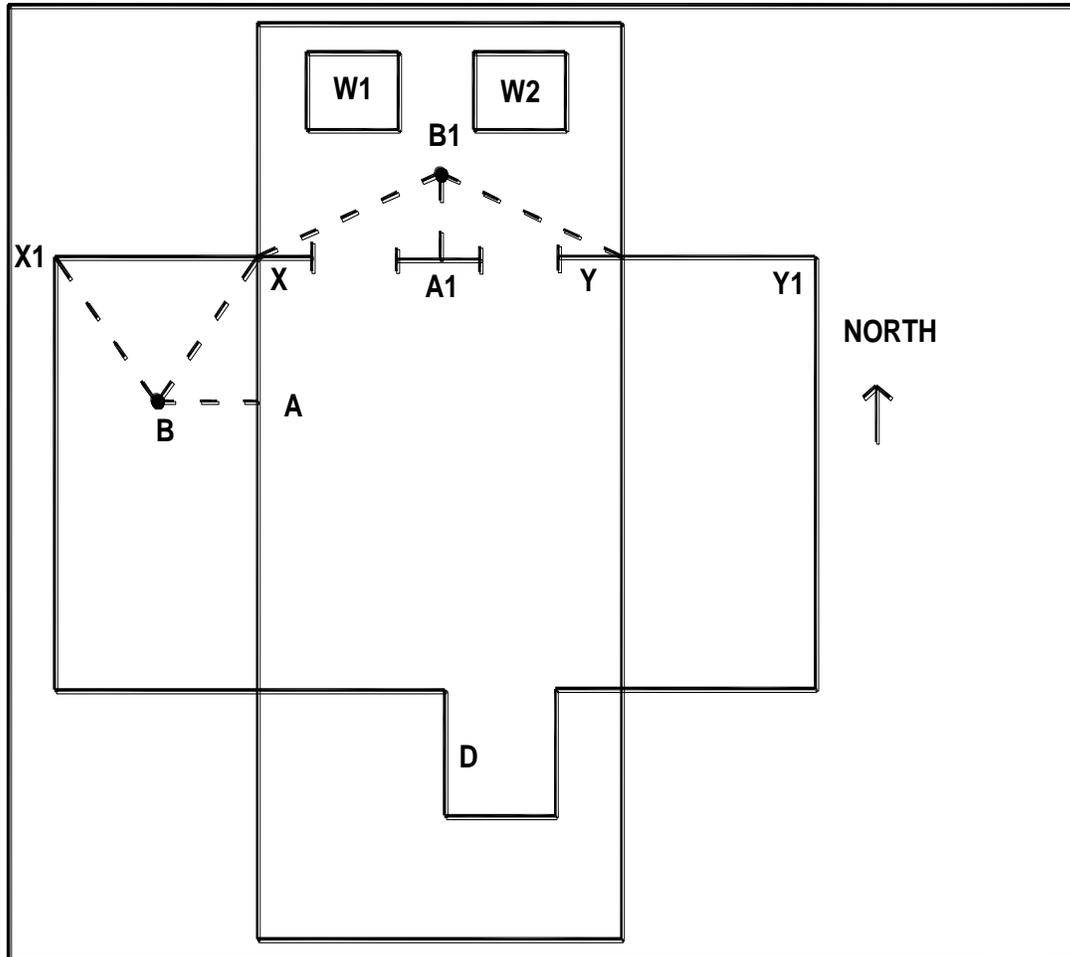


FIG.3: CROSS PROJECTION METHOD

- X,Y - Two fixed points on the ground
- X1, Y1 - Two fixed points
- B - Bullet Hole; B1- Blood stain
- D - Door, W1,W2 - Windows
- XB1, YB1 - Distance from two fixed points to blood stain
- XB, X1B - Distance from two fixed points to bullet hole
- BA, B1, A1 - Perpendicular distances to the ground

Signs and symbols useful for sketching

6. The following items are needed for sketch drawing.

Items needed for sketch drawing

- A steel tape -100' (For overall dimensions)
- A steel tape -20' (For measurement from a baseline)
- A ruler -12"
- A magnetic compass
- A graph paper or square lined paper
- A soft lead pencil
- A clip board for mounting the paper
- A set of sketch pens of assorted colours

Signs and symbols useful for sketching

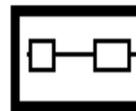
Distance (Measurement) Line		Television	
Items of Evidence	1, 2, 3 Etc.	Bed	
Light Pole		Dresses	
Traffic Signal		Bath (Tub)	
Gun		Shower (Stall)	
Knife		Water Closet (Toilet Bowl)	
Road or Driveway		Stove (Range) (Circles Indicate Number of Burners)	
Fence		Refrigerator	
Railroad		Door	
Tree		Sink	
Hedge, Low Shrubbery		Built-in (Place Open Side Against Wall)	
Footpath, Walkway		Counter (Located in Kitchen, Merchandise in Store or Showroom)	
Vehicle		Cash Register	
Bicycle or Motorcycle		Safe	
Camera (Position)		Door	
Blood		Double Door	
Body (Victim)		Sliding Door	
Chair		Folding Door	
Sofa, Couch, Day Bed		Wall (Building Interior or Exterior)	
Table (Coffee or Large)		Casement Window (Drawn in Extension of Wall)	
Table (Small)		Stairs (Arrow Indicates Up)	
Table (Round)			
Lamp			



WALL



WALL & GATE



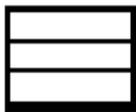
CANTONMENT
BOUNDRY



BAZAR
BOUNDRY



FOOT PATH



MAIN ROAD
METALLED



UNMETALLED
ROAD



CART TRACK



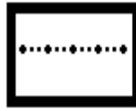
ROAD
EMBANKMENT



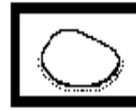
RAILWAY LINE
DOUBLE & SINGLE



TRAFFIC
SIGN



POWER LINE



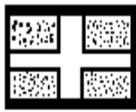
TANK
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WET CULTIVA-
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DRY
CULTIVATION



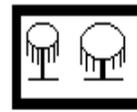
FLOWER
GARDEN



PALMYRA
TREES



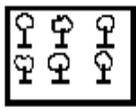
COCONUT
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BANYAN TREES



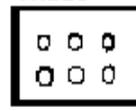
BAMBOO TREES



FRUIT
GARDEN



WOODS



TREE
PLANTATION



CONTOURS



LOW JUNGAL



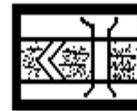
SAND



TANK & POND



ROCKY
GROUND



CANAL BRIDGE
LOCK



STREAM



CEMETRY



LINE OF TREES



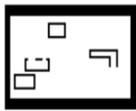
HEDGE



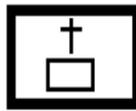
VILLAGE WALLED



GRAVES



SCATTERED
HOUSES



CHURCH



TEMPLE



MOSQUE



BARREN LAND



ROAD
BRIDGE



RIVER



NORTH
DIRECTION



RAIL OVER
ROAD



ROAD OVER
RAIL

External wound sketch

7. The methods discussed above are used to record the position of various items of evidence including any deceased persons but do not include the position of wounds on the victim. To record wounds, an external wound sketch, may be used. A wound sketch showing a wound of a shooting victim with a bullet wound in the forehead is illustrated in figure 4. Different sketches given in the figure can be conveniently used for showing the position of the wounds on any part of the body of the victim.

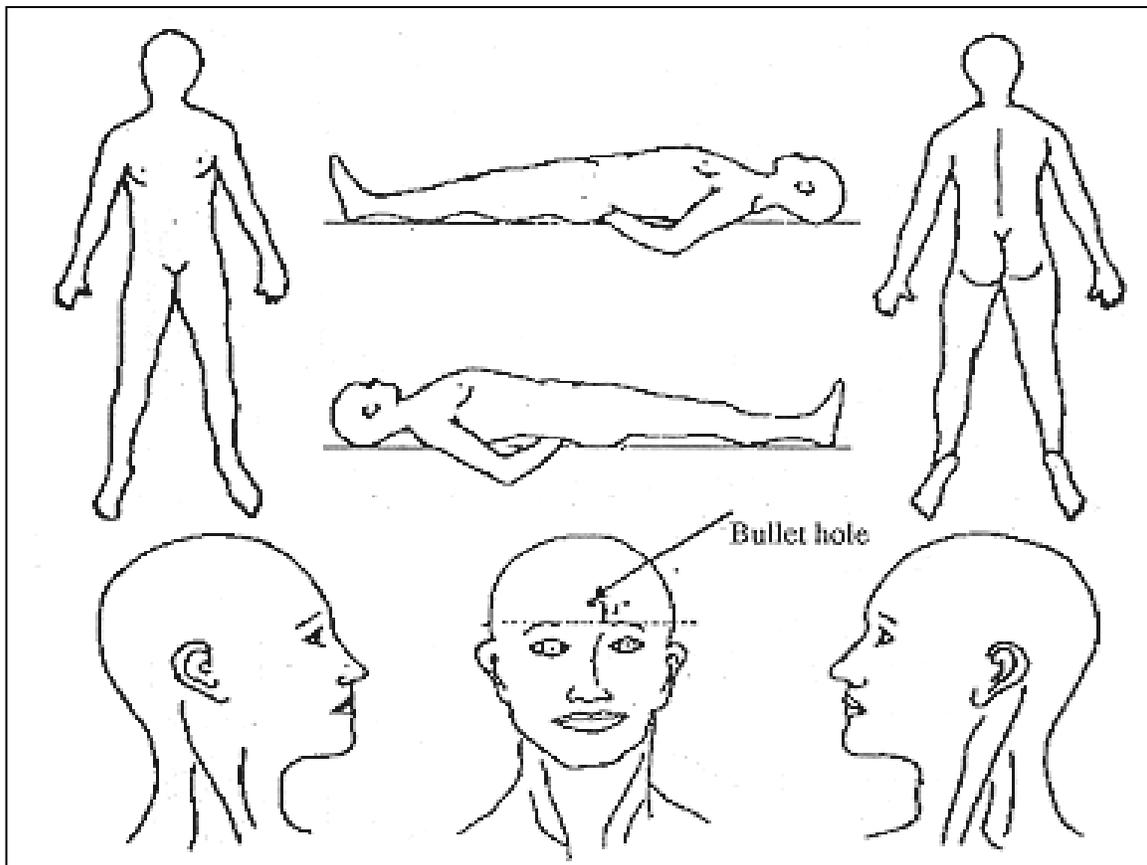


FIG.4: EXTERNAL WOUND SKETCH METHOD

Crime Scene Observation Notes

- 158-1.** The officer making the search should take down accurate and detailed notes, supported by accurate sketches drawn to scale, showing the whole layout and the exact places where the articles, etc. were found. It is not sufficient to say that an article was in a certain room or on a particular table, but its exact position must be noted and, if necessary, an enlarged sketch of that portion of the scene must be drawn. In all-important cases, photographs, video graphs and where possible laser impressions should be taken of the scene and of the objects on which any useful clues are found.
- 2 The successful investigation of a case rests on the ability of the investigating officer to gather maximum information from various sources in a limited time in order to use it subsequently. The Police officer cannot easily and accurately recall past events for crime scene reconstruction or for court testimony after a lapse of time. Sometimes many seemingly unimportant details may prove to be of utmost utility as evidence and in the investigation process. Hence the investigating officer should enter all details, observations, data, statements as and when they occur in his observation notes and case diaries and should personally get these sketches prepared taking fullest assistance of his team, scientific

personnel and other experts. He should see that the team members work efficiently, professionally and cohesively. The need for observation notes arises at various stages of investigation and it serves the following purposes:

- A. Future evaluation of evidence, preparation of charge sheet and deposition in the court. The courts and defense counsel may also demand the detailed notes and records maintained.
- B. Photographs provide only a two-dimensional representation of the crime scene, whereas sketches are useful for fixing the location of various items at the scene. Other intricate details such as the colour, design, pattern, type, model, brand, serial number, etc. of the various items, which may be required for the investigation, can only be recorded in the observation notes.

Guidelines for recording observation notes

- 3-A. **Method of Recording:** The notes should start with the time of receipt of first information. The notes can be recorded as and when the observations are made and need not be in sequence.
- B. **Date, time and location:** The time and date of arrival at crime scene and the details of its location, environmental conditions (smoke, rain, dusk, dawn, etc.), the names of persons present at the scene on arrival, should be recorded.
- C. **Description of the victim and clothing:** The name, age, height, weight, complexion, colour of hair and eyes and, if possible, the date of birth of the victim should be noted. Outer garments should be described in terms of type of garment and colour.
- D. **Wounds on the victim:** The exact location of a wound or

injury, its type, size and in the case of a bruise, its colour.

- E. **General Description:** Damage to items and any apparent disturbance of the normal arrangement of furniture or other objects and also the presence of objects that seem unusual in the context of the scene.
- F. **Recognition of each significant item of evidence:** The description of each significant piece of evidence found or identified with special techniques with complete details, such as the time when it was found, the exact location, who found it, how it was marked, sealed and packed.
- G. **Missing items:** The purpose of this entry is to note items that should have been normally associated with the crime being investigated, but which are absent at the crime scene or on the victims or deceased. For example, an item of clothing missing from the victim's body that could not be located at the scene of crime and which, if found later from the suspect or elsewhere, should be useful in linking evidence and suspect or vice-versa.
- H. **Other important information:** The condition of doors, windows, locks, wrist watches, clocks, water taps, electric lights, and other household gadgets as well should also be recorded carefully.
- I. **Miscellaneous:** Any other details not included in photographs and sketches such as condition of surroundings, minute details on various items of evidence such as serial number, model, make of firearm, etc., should be recorded. The investigating officer can reorganize all these notes for preparing his case diary and charge sheet.

Searching the Crime Scene for Physical Evidence

159-1.A. The primary purpose of inspecting the scene of crime is to

search for any evidence left behind by the criminal while committing the crime. Such evidence will be invariably present in all scenes of crime is based on the principle of exchange propounded by Prof. Locard in 1928, which says” *Whenever any two objects or materials, animate or inanimate, come into contact with each other, there is always transference of material from each object on to the other*”. Such transference may be large or small, visible or invisible, detectable readily or difficult to detect, but such transference does occur. It is therefore the primary responsibility of Investigating Officers to search, identify and collect such evidence independently or with the assistance of expert.

- B. The crime scene is highly dynamic and is constantly undergoing change. It is also fragile, in the sense that the evidentiary value of the items it contains can be easily lost or downgraded. Usually there is only one opportunity to search the scene properly. Hence making a good overall survey of the scene is quite essential.
 - C. A competent search of a crime scene requires a thorough understanding of crime, its nature, and extent of damage, people aggrieved, property lost or damaged and the manner in which the offence was committed. All items should be searched with equal care and concentration. The search should be carried out carefully, avoiding unnecessary disturbance of the scene.
- C. Based on the initial survey the investigator should first develop a hypothesis that will serve as the initial framework of the investigation.

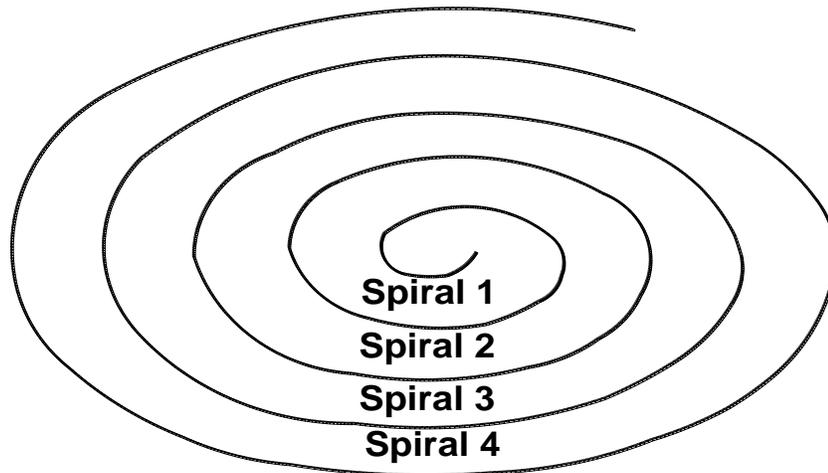
The hypothesis is simply a set of rational assumptions about how the crime was committed and the general sequence of acts that were involved. The hypothesis must be constantly reassessed in the light of each new fact or clue that is uncovered. There is often a tendency to arrive at unfounded assumptions. For example, if the Investigating Officer has substantial evidence that a murder was committed where the body was discovered, he may be tempted to ignore a fact or clue that does not fit the framework of that idea. Such inflexibility must always be avoided in the crime scene search. The Investigating Officer must be willing to modify or change altogether his initial ideas concerning any aspect of perpetration of crime. It is only through such a process of reassessment that the full value of the Investigating Officers experience can be realized.

D. By the time an initial survey of the scene is completed, the investigator should have noted the obvious items of evidence to be collected, and decide in what order he will collect evidence, what should be searched for, and how the tasks and areas have to be divided. The methods of searching the crime scene for physical evidence is given below.

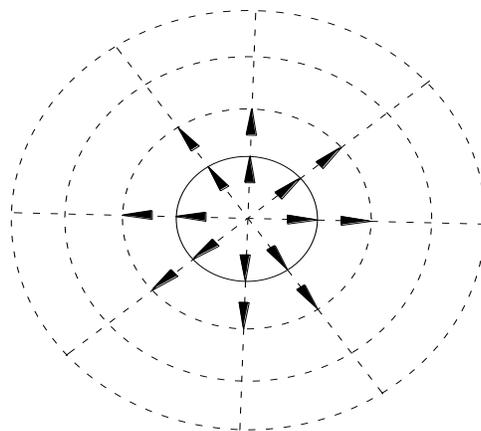
Search methods

2-A. **Spiral method:** The search is conducted following a spiral pattern working from outside to inside towards the centre or focal point (towards the body, safe or any other key feature) or vice versa, either clockwise or anti clockwise. It is an effective search pattern for single person search, with a very high probability of locating minute evidence like fingerprints, footprints, etc. Also, there is not much likelihood of the

evidence being destroyed by the investigator's movements.

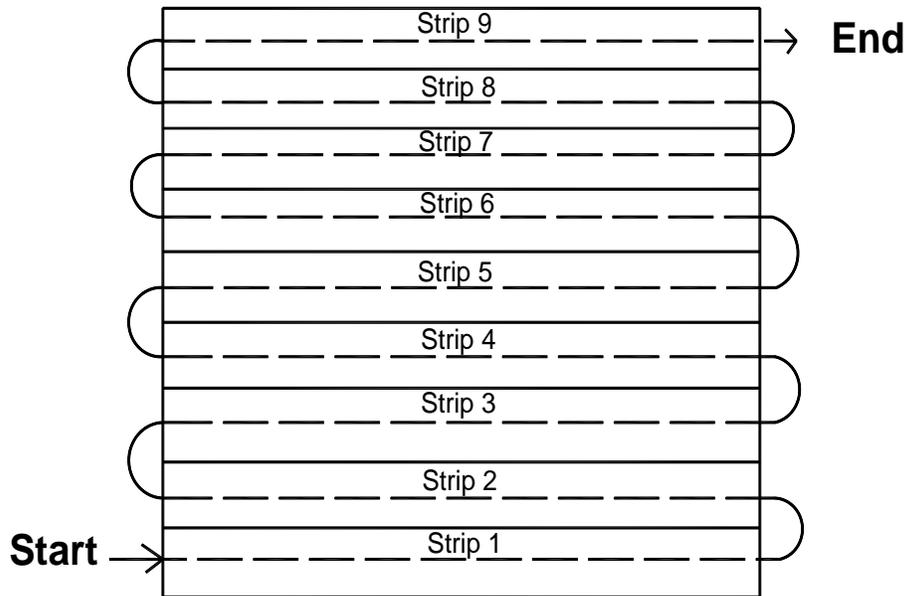


B. **Radial method** : In this method, the investigator works outward from the centre along the radial, and moves in circles of increasing circumference repeatedly. This method provides a double check on the searched area and is one of the best methods available for both indoor and outdoor searches. This method is preferred if more than one officer is conducting the search.



C. **Strip method**: This is a sector search, useful both for indoors and outdoors, in which the crime scene is divided into segments or strips. The method works well if the area to be searched is square or rectangular in shape with clearly marked boundaries. The search

may be conducted by one or more officers depending on the size of the area and availability of officers.



D. **Grid method** : Grid method is a slight modification of the strip method. This method is useful for small areas especially indoors. The area is divided into grids. In this method a single person can search the entire area by moving at right angles, and covering all the squares of the grid.

<u>Body fluids</u>	Blood, semen, saliva, sweat, tears, milk, urine, faecal matter.
<u>Body parts and body materials</u>	Skull, flesh, teeth, bones, nails, and broken bone pieces, viscera materials preserved during autopsy.
<u>Containers</u>	Containers of powders, chemicals, drugs, poisons, narcotics, inflammable liquids, miscellaneous substances including glass, plastic, tin, phials, bottles, cans, drums, gunny bags, and any other enclosed articles.
<u>Documents</u>	Papers, books, cheques, receipt, counterfoils, bills, files, carbon papers, letter pads, writing materials viz., pens, ink, seals, stamps and their impressions, photocopies, negative and positive photos etc.
<u>Explosives</u>	Remnants of an explosion, springs, wires, timing devices, chemicals, stones, cotton, paper, fillers, residual and unexploded portions of explosives, explosive devices.
<u>Fibres</u>	Natural or synthetic fibres adhering to clothes, upholstery, seat covers, drapery, or any other articles.
<u>Fingerprints</u>	Fingerprints - latent, visible, semi-visible
<u>Foot prints</u>	Footprints - cast, lifted.
<u>Fire, arson</u>	Burnt remains, inflammable materials, fire remnants

and burnt remnants accelerants, other arson related articles.

Firearms

Firearms - country made, factory made

Ammunition

Live-cartridges, empty cartridge cases, bullets, pellets, wads, gunpowder, discharge residues from hand, etc.,

Glass

Fragments, pieces, sheets, bangles, articles.

Hair

Animal or human hair.

Impressions

Impression metals Serial numbers on metals - cast, engraved, etched or punched. Other marks on metallic parts, filed, erased, stamped, etc. Impressions not included in any other category such as type writer impressions, shoe prints, glove impressions, tooth impressions, fabric impressions, bite-mark impressions, lip impressions, etc.

Soil and dust

Soil, dust, debris, mud, dirt, occupational dust in the form of stains, lumps, particles, powder, etc.

Tools & Implements

Khukuri, Bamphok, Razor blades, penknives, screwdrivers, hammers, punches, files, engravers, needles, crowbars, hacksaws, cutting pliers, sickles, spades, axes, swords, and any other sharp metallic house hold or industrial implements.

Tool marks

Cut marks, shear marks, punching marks, levering marks, file marks, chisel marks, drill marks, struck marks, depressed marks.

<u>Wood and</u>	Any fragments of wood, sawdust, or any vegetable matter on clothing
<u>Vegetable matter</u>	shoes, tools, body etc., and materials like seeds, bark, leaves, etc.
<u>Miscellaneous</u>	Stains, impressions, prints, articles or other materials that is likely to link the crime or criminal with the victim or scene of crime.

Instructions for lifting, packing and forwarding physical evidence

- 161-1** A. Physical evidence should be described in detail with full information as to when and where such evidence was found; who found it, handled it and how it was disposed.
- B. Each item should be packed separately so as to avoid breakage, loss or contamination in transit.
- C. Tweezers, forceps and similar tools are used to collect and place traces and small items into containers. It is advisable to use rubber gloves to handle such physical evidence.
- D. An “evidence box” such as wooden box, clean empty cartons, cardboard boxes, etc. should be utilized for transporting the items of evidence. An evidence box with pegboard sides allows for tying or wiring small and medium sized objects in place. A series of drilled holes and appropriately sized clamps can serve the same purpose.
- E. Items of evidence that need comparative analysis for possible

commonness of origin should be packed in separate containers to avoid any allegation of cross contamination.

- F. Thoroughly clean and dry containers, wrapping paper, corrugated paper boxes and sealing tape are the basic safeguards for physical evidence in transport. No wet or solid materials or boxes should be used.

- G. Documentary evidence should be first placed in transparent envelopes without folding or bending, and then placed between two pieces of rigid cardboard and packed in a suitable cloth-lined envelope cover.

- H. Plastic pill bottles such as used medicine containers with lids are unbreakable and can be easily sealed with tape. They make excellent containers for hair, fibres, and other small trace evidence. They are ideal for spent bullets, empty cartridge cases, and cartridges because they can be packed with absorbent cotton to minimize movement. Plastic envelopes and bags are suitable for packing many materials. However in case of soil, debris or clothing impregnated with bloodstains, this may result in bacterial action contaminating the blood sample, and should be avoided.

- I. If the stain is on a solid object that can be moved, such as a Khukuri, Bhamphok, knife, crowbar, fire arm or any other weapon, it is preferable to transport the whole object, protecting the area of the stain or completely enclosing the object in a package (if it is small enough).

- J. If the stain is on clothing, the garments should be wrapped separately in paper, marked appropriately and packed. This is better than any other technique such as scraping for forwarding a movable sample of the stain for analysis. Garments and other clothing such as bed sheets, towels, tablecloths and similar evidence should be folded as small as possible and without pressure. The specific areas of such fabric which contain trace evidence should be folded in such a way as to protect such areas to avoid loss of such materials by falling off, peeling off, etc.
- K. It is preferable to send a soil-stained or mud-soaked object to the laboratory rather than to attempt to remove and send the soil or mud as separate items. When such traces are picked up as individual items of evidence, it is vital that every precaution is taken to keep the evidence in separate sealed containers to avoid any accidental loss or mixing in transit.
- L. Bed sheets, carpets, woolen materials from the scene of arson may be wrapped in metal foil and sealed in airtight containers. Smaller objects, such as paper and rags or solid samples should be sealed in the container in which they were found or placed in airtight bottles or cans. This protects the fire accelerants and their residues from evaporation.
- M. Pills and other non-caustic substances should be left in their original containers for transport to the laboratory. Such containers often contain useful information. The investigating officer should count the number of pills and capsules or accurately determine the bulk quantity of fluids or powders and should include such data in observation notes. Caustic or

corrosive poisons should not be transported until their safe transit is ensured by suitable means. Appropriate containers such as glass bottles with a glass lid should be used for transporting substances such as acids.

N. Food and edible substances should be placed in as many separate moisture proof bottles or containers as necessary to avoid any contamination. In case of suspected food poisoning the packages should be marked clearly as suspected or known samples of poison.

O. Trace evidence, such as hair, fibers, etc. should be sealed in folded paper or placed in clean, sealed envelopes.

P. Adequate and appropriate samples should be collected. Bulky articles, samples in huge quantities e.g., cots, mattress, flooring stones, a drum of petrol or diesel oil, etc. or articles unconnected with the case should not be sent.

Q. Tag or mark all the articles. If the articles can be enclosed, put a mark on the container or the box. If special handling is required, it must be indicated and specific instructions provided on the packing itself, e.g., material is fragile or perishable.

R. Indicate any special priority that should be given to the case.

S. Notify the laboratory if the case is associated with any previous

submission or evidence.

T. Always obtain a signed receipt whenever evidence is transferred (chain of custody) from place to place or person to person.

U. All evidence should be forwarded or received only in a sealed condition.

V. Label, initial and seal all envelopes and the packages without fail. The seal should be legible and intact and all knots of stitching ropes must be sealed.

W. Ensure prompt delivery of all items of interest to the laboratory.

X. Record all the procedures adopted for location, recording, lifting, packing and forwarding, in case diaries.

Y. Wherever feasible, it is advisable to bring the physical evidence in person and discuss the circumstances and history of the case so that the scientist will endeavor to bring out the right information from the scientific studies.

2. A table indicating the method of collection, packing, and preservation and forwarding different types of samples is given in the Chapter "Scientific Aids to investigation". The Investigating Officers are advised to contact the FSL for getting the information with regard to unusual types of material objects.

Chain of custody of physical evidence

- 162-1.** Continuity of possession or the chain of custody of evidence is an important aspect whenever evidence is collected, until it is presented in the court as an exhibit. The chain of custody assures continuous accountability. If it is not properly maintained, an item may become inadmissible in the court. Failure to substantiate the chain of custody may lead to serious questions regarding the authenticity and integrity of the evidence and the examination rendered upon it, making the whole process an exercise in futility. There are cases where failure to mark the items for subsequent identification in the court of law has resulted in the acquittal of the accused. Similarly, failure to account for certain items during a certain period or with a particular agency such as court, laboratory, police station, etc., at a particular time results in inadmissibility of the evidence itself.

2. The Investigating Officer after receiving the complaint and reaching the Scene of Crime having made preliminary observations should fill the Crime Scene Investigation and Physical Evidence retrieval report given in the Chapter ("Scientific Aids to investigation". The form should also contain details of the condition of the person/body in case of wounded and deceased persons found at the scene of crime. Physical evidence retrieved and the controls seized/recovered from various sources should be properly recorded in the form.

Letter of Advice

3. All material objects forwarded to the expert should be accompanied by a letter of advice in Form . A copy of the forwarding letter should invariably be enclosed in the parcels, so that exhibits can be connected with the relevant case.

Letter of Advice – Supplementary Information

4. In poisoning cases, supplementary information in Form should be sent with the letter of advice. Omission to supply the essential supplementary information leads to unnecessary correspondence and delay in the disposal of the case. Background of the subjects in polygraph cases, method of collection, preservation etc. in DNA cases, and other relevant case history in sensational cases is essential for deciding the analytical sequence.

Forwarding Authority and Time period for forwarding the samples

5. Physical Evidence can be forwarded for examination, to concerned experts by investigating officers through the judicial magistrates having jurisdiction informing the SDPOs etc. Physical evidence should be forwarded at the earliest to FSL or other test laboratories as the case may be. In case of delay over one month, a D.O letter from the concerned SP should be sent.