

# ROLE OF FORENSIC SCIENCE IN CRIMINAL JUSTICE SYSTEM

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## INTRODUCTION

Forensic science is a criminal investigation and trials are mainly concerned with materials and indirectly through materials with men places and time. Among them men the investigating officer is the most important person. In fact it is his work that determines success or failure of the application of forensic science in the processing of a criminal case. Forensic science processes, identifies and compares the materials. Based on the presence or absence of link between the crime the criminal, the victim the weapons, the offence the place and the time of occurrence interse.<sup>1</sup>

Two peculiarities characteristics of forensic science

1. It is multi professional

It is multidisciplinary.

The forensic Singh science has to depend upon the investigating officer on the other hand for proper functioning of forensic science, and on their presenting council and the judge on the other for its effective utilization in the dissemination of justice.

Social change:

The society is undergoing drastic social changes at a rapid pace. India changed from the colonial subject nation to democratic republic. Sizeable industrial complex has suffering up the transport facilities and the means of communication having revolutionized. A criminal may commit a crime and into Hours he may be anonymous figuring any metropolitan city.

Need of forensic science

- Social change
- Anomity
- Technical knowledge

<sup>1</sup> FORENSIC SCIENCE IN CRIMINAL INVESTIGATION AUTHOR B.S.NABAR

- Wide field
- Tremendous change in commission of offence
- Strengthen evidence beyond reasonable
- doubts
- Better evidence
- Development:

Forensic science for effective application in criminal investigation demands multi professional approach

1. The investigating officer has to know it.
2. The counsels have to you understood it.
3. The judges have to comprehend apprise utilize or discard it.

The investigator is the prima donna in the process. He collects the physical evidence reclude that he has to know:

- The nature of physical clues which are to be collected.
- Where they are located.
- How they are collected, preserved, packed, dispatch and maintaining their integrity, identity, authenticity and chain of custody.
- What standard samples for comparison purpose are necessary and where they are available.
- How much sample is required and how the sampling is done how is collected?
- What he expects from the analysis of the clues and what are the forensic possibilities of the forensic analysis
- How the analysis results fit with other evidence eyewitness accounts and circumstantial evidence.

## **FUNCTIONS:**

Forensic science performs any functions including the following:

### **1. CORPUS DELICIT:**

The case of the recovery of dead body.

Death could be natural, accidental, suicidal or homicidal. Forensic science ascertains the nature of death to establish whether the death was homicidal or non homicidal. Establishes the existence or non existence of Corpus delicti.

## 2. MODUS OPERANDI OF A CRIME

The examination of Corpus delicti, the crime scene, the evidentiary clues and the circumstances surrounding the occurrence indicate the possible modus operandi.

## 3. IDENTIFY THE CRIMINAL

Forensic science established their identity of culprit through many clues in many situations including the following

- The culprit's mobile telephone records me. The needle of suspicion towards the suspect.
- Is computer SMS email transactions give the details relating to the promotion of the crime?
- He may leave clues like a finger prints foot prints hair blood drops saliva semen other body fluids at the same on the victim the vehicle he used commission of crime on the arrival routes.
- He may pickup similar clues from the victim from the scene.
- . He may leave objects and materials at the same in the crime vehicle on the weapons of offence or with the victim.
- The time analysis of whereabouts at the material time may place at the crime scene.

## 4. IDENTIFY OF THE VICTIM

Forensic science through the personal clues on the person of the victim deceased helps to identify the unknown discussed skeletal remains.<sup>2</sup>

## PRINCIPLES OF FORENSIC SCIENCE:

### LAW OF INDIVIDUALITY

Every object natural or manmade has an individuality which is not duplicated in any other objects .it is unique name the nature has not duplicated itself nor can man. It's a fundamental in forensic science. Anything and everything involved in a crime has quality.

### PRINCIPLE OF EXCHANGE

Where two entities come into contact mutual exchange of traces take place. When a criminal his instruments of crime come into contact with the victim are the object surrounding him they live traces.

<sup>2</sup> FORENSIC SCIENCE IN CRIMINAL INVESTIGATION AND TRIALS AUTHOT B R SHARMA

## **LAW OF PROGRESSIVE CHANGE**

Everything changes with the passage of time. The impact of law on forensic sciences is immense. The criminal undergoes progressive change.

## **PRINCIPLE OF COMPARISON**

Only the likes can be compared. An emphasis that the necessity of providing corresponding samples/specimens standard for comparison with the questioned time.

## **PRINCIPLE OF ANALYSIS**

The analysis can be no better than the sample analyzed.

## **LAW OF PROBABILITY**

All identifications definite or indefinite are made consciously or unconsciously on the basis of probability. It's a mathematical concept.

## **FORENSIC SCIENCE INSTITUTIONS**

A forensic science laboratory is the main forensic science institution for assisting the criminal justice system in the dissemination of real justice. It has generally the following scientific departments.

- Forensic chemistry
- Forensic physics
- Forensic biology
- Forensic ballistics explosives
- Forensic toxicology narcotics
- Forensic serology
- DNA profiling
- Forensic psychology lie detector unit
- Voice analysis photography instruments
- Cyber crimes
- Scene of crime
- Finger prints
- CID
- Scientific sections chemical examines exam laboratories
- mobile Laboratory
- Medico legal institutes.

## FORENSIC SCIENCE IN TRIALS

It is difficult to see how to Reliance can be placed on the pinion unless it is supported by a good reason founded on the facts that warranted that option opinion. If the reasonable or good and convenience Singh and the factual data on the basis of which the opinion is formed warrant the opinion the court will relay on the opinion. Gujarat High court.<sup>3</sup>

Suleman Usman Memon vs state of Gujarat AIR (1961)2 crLJ78.

Cross examination of witness is considered the acid test to ascertain the truth full evidence and hallmark of the system.<sup>4</sup>

## EVIDENCES

Major type of evidence used in criminal trial.

Eye witness accounts, Confessions. Approver's evidence, Stock weaknesses, Circumstantial evidence, CCTV evidence, Mobile phone evidence, Noetic science ,Criminal profiling, Surveillance, digital video photography and sound surveillance evidentiary clues.<sup>5</sup>

## FORENSIC REPORTS IN TRIAL:

- It is concise, precise yet comprehensive intelligible convenience.
- It is simple intelligible language.
- It has preponderance of supporting data from its conclusion.
- It explains contradictory non supporting evidence.
- It has quality solutions to support the report.
- It is well reasoned and permits only the give an interpretation.
- It is self contained self explanatory self testifying.

Scene of occurrence

The success or failure of criminal investigation starts and ends at the crime scene. A scene of occurrence is the place where the incident has occurred a place where and incident related material is found the incident maybe a crime and accident or some other occurrence.

Making and breaking Scene of occurrence

<sup>3</sup> FORENSIC SCIENCE IN CRIMINAL INVESTIGATION AND TRIALS AUTHOT B R SHARMA

<sup>4</sup> AIR (1961)2 crLJ78.

<sup>5</sup> THE LAW OF EVIDENCE AUTHOR RATANLAL

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## MODERN AIDS

Keeping you the importance of the scene of occurrence the police department all over the world have organized system to improve facilitate and expedite the handling of the scene of occurrence.

- Investigators kit
- Examination kit
- Making and breaking kit
- Fingerprint kit
- Casting kit
- Blood testing kit
- Collection paraphernalia
- Recording equipments
- Identification of accused by sniffers dog <sup>6</sup>

Lalit Kumar Yadav versus state of Uttar Pradesh criminal appeal number 1022 2 of 2006 decided on 25th April 2014 supreme court

Since nobody was named in the FIR the investigating officer to the help of dog squad and the dog handler. Dog tracing proceedings was then and dog track the accused.

Dinesh borthakur versus state of Assam (2008) 5 SCC 697

The law in this behalf is settled that while the services of sniffer dog may be taken for the the purpose of investigation its facilities cannot be taken and evidence for the purpose of establishing the guilt of the accused<sup>7</sup>

## LOCATION OF SCENE

Raghunandan vs State of Uttar Pradesh AIR 1974 SC 463

We also find the trial court as well as high court has brushed aside the objection that the blood recovered from the place of occurrence was not sent for criminal examination. We thing that failure of police to send the blood

<sup>6</sup> FORENSIC SCIENCE IN CRIMINAL INVESTIGATION AND TRIALS AUTHOT B R SHARMA

<sup>7</sup> (2008) 5 SCC 697

for chemical examination in a serious case of murder such as one before as is to be depreciated. In such case the place of occurrences often disputed<sup>8</sup>.

Dayal Singh versus state of Uttaranchal AIR2012 SC 3046

In this case the murder where the IO and the medical legal doctor showed extreme degree of dereliction of duty. The evil of the material. The doctor refuses to record injuries on the person of the deceased. Supreme Court felt that the dereliction of duties was deliberate. The discard evidence. The eye witness evidence was reliable and sufficient. The convicted the culprit and wrote to government to take action against the derelicts.<sup>9</sup>

## **RELEVANT PROVISION FOR CRIMINAL TRIAL**

### **INDIAN EVIDENCE ACT:**

Section 45 opinion of experts.

Section 46 facts bearing upon opinion of experts.

Section 47 opinion as to handwriting when relevant.

Section 48 opinion as to existence of right or custom when relevant.

Section 49 opinion as to usage, tenets when release.

Section 50 opinion on relationship when relevant.

Section 51 grounds of opinion when relevant.

Reconstruction of scene of crime

Section 65a 65b and 73 comparison of signature where admitted or proved.

Section 112 Birth during marriage conclusive proof of legitimate child.<sup>10</sup>

Relevant to expert witness.

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<sup>8</sup> AIR 1974 SC 463

<sup>9</sup> AIR2012 SC 3046

<sup>10</sup> INDIAN EVIDENCE ACT BARE ACT

## IDENTIFICATION OF PRISONERS ACT 1920

The main purpose of legal sanction of time specimen evidence from the accused suspect and convicted person.

Measurements finger and foot impression it is not a violation of fundamental rights.

Sec3 Taking measurement of convicted of any offence punishable with rigorous order to secure good behavior.

Sec4 taking measurement of non convicted person any person who was arrested in connected with offence punishable with one year imprisonment.

Sec5 Power of magistrate to order a person main measure or photograph with magistrate class 1.<sup>11</sup>

Section 6 resistance or refusals taking a measurement refuse to give measurement under section 186 of IPC.

Sec186 of IPC obstructing public servant in discharge of public function.

## EVALUATION OF SCENE OF CRIME

- Protection
- photography
- sketching search

## PROTECTION

Protection the role of investigator starts by police. The investigators not able to reach any person go and carefully reach the scene of life, remote of life, cooling off body. If any sign of life the person taken into the hospital minimum disturbance taken everything shall be recorded.

- All unauthorized man should not enter.
- The scene of occurrence should not altered should be fenced.
- Suspected witness should not discuss with one another. Near suspicious detail the person.
- Senior should be e also not entered only the officer in charge.
- Independent search should not carried by the investigation with the officer in charge.
- The officer should not introduce any material example smoke finger prints etc.
- Bathroom telephones the investigator not used.
- The scene of crime not cleaned

<sup>11</sup> CRIMINOLOGY PENOLOGY AND VICTIMOLOGY AUTHOR S S SRIVASTAVA



## PHOTOGRAPHY

One photograph of a scene reveals more than its description in thousand words

- The scene of occurrences photograph as a matter of routine. Digital photography has brought and revolution in photographic a scene.
- The photographs of the scene of occurrence are very useful. It is rather for the judges the jury the lawyers to visit the scene of occurrence proper photographers of the same bring the scene to the court room.
- The pressure of work main force and investigating officer to overlook certain details proper photographs of the scene.

## SKETCHING

- Sketches are handy in depicting important evidence at the scene of occurrence.
- The sketches provide an ideal presentation of the scene.
- Indicate the basic setup of the crime scene.
- Indicate inter distances and position of the the relevant evidentiary close only.
- The sketch of the scene is prepared at the site and not in the office residence of investigating officer

## SEARCH

Search for the clue materials requisite careful and through examination of the scene of occurrence. The search technique vary from one scene to another. The following methods are common

- Zonal method
- spiral method
- strip method
- crosshatch screen method<sup>12</sup>

## CONCLUSION:

The forensic science helps the criminal investigation it plays a vital role in the criminal justice system in the modern era for the heinous crime. It gives a fair idea of the rarest case this girls were putting the forefront by giving them the place of pride in the criminal trial. It helps to sort out the cases as earlier. The relief surely will be a beneficial to the victim and the relatives of victim.

<sup>12</sup> FORENSIC SCIENCE IN CRIMINAL INVESTIGATION AND TRIALS AUTHOT B R SHARMA