



Crime Scene Forensic Sketching:

Techniques for Accurate Crime Scene Reconstruction

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OVERVIEW

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- Sketching Materials
- Steps in Sketching
- Types Of Sketches
- Perspectives in Crime Scene Sketching
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What is Sketching ?

- The crime scene sketch is the permanent record of the actual size and distance relationships between the crime scene and its physical evidence.
- The sketch must correlate and supplement the still photographs taken at the scene.
- The sketch further supports the relevancy, reliability, and validity of physical evidence found at the crime scene.



- Sketches are handy in depicting a scene of occurrence. In combination with the photographs, the sketches provide an ideal representation of the scene.
- They indicate inter-distances between relevant objects.
- They indicate relevant evidence only.
- Accurately portrays the physical facts
- Relates the sequence of events at the scene
- Establishes the precise location and relationship of objects and evidence at the scene
- Creates a mental picture of the scene for those not present



The crime scene sketch must include not only the measurements of the crime scene and the physical evidence but also other important documentation information. The information to be included in this portion of the sketch is as follows:

- Agency case number
- Offense or incident type (death investigation, burglary, etc.)
- Victim(s) name(s): never place a suspect's name on the sketch
- Address or location
- Scene describer (interior of house, outdoor area of scene, room 222, etc.), including weather and lighting conditions
- Date and time the sketch was started
- Sketcher's name, assistant sketcher's name, or verifier's name
- Scale used (for example, 1 mm = 1 inch)
- Legend (# = item of evidence) of physical evidence

Sketching Materials :



Paper



Pencil



Measuring tape



Ruler



Eraser



Compass



Clipboard



Pencil sharpener



Steps in Sketching the Crime Scene :

- ◆ Observe the scene
- ◆ Plan
- ◆ Measure distances
- ◆ Outline the area
- ◆ Locate objects and evidence within the outline
- ◆ Record details
- ◆ Make notes
- ◆ Identify the sketch with a legend and a scale

Types Of Sketches :



Rough Sketch



Finished / Final Sketch

Rough Sketch :

- A rough sketch is made at the crime scene before evidence collection. It shows all the evidence to be collected, major structures present in the crime scene, and other relevant structures in or near the crime scene. The rough sketch will show all the measurements taken to determine the size and distance relationships at the crime scene.
- The rough sketch is the first pencil-drawn outline of the scene and the location of objects and evidence within this outline.
- Usually not drawn to scale
- Although distances are measured and indicated in the
- Sketch after photographs are taken and before anything is moved.
- Sketch as much as possible



Final Sketch :

- A final or finished sketch, drawn to scale, is prepared from the rough sketch.
- The final sketch is normally prepared for courtroom presentation.
- It will show the relevant structures within the crime scene and all items of evidence.
- It should never show any measurements. It has a clean, uncluttered appearance.
- A precise rendering of the crime scene, usually drawn to scale.
- Finished sketch must reflect information contained within the rough sketch to be admissible evidence in a courtroom.

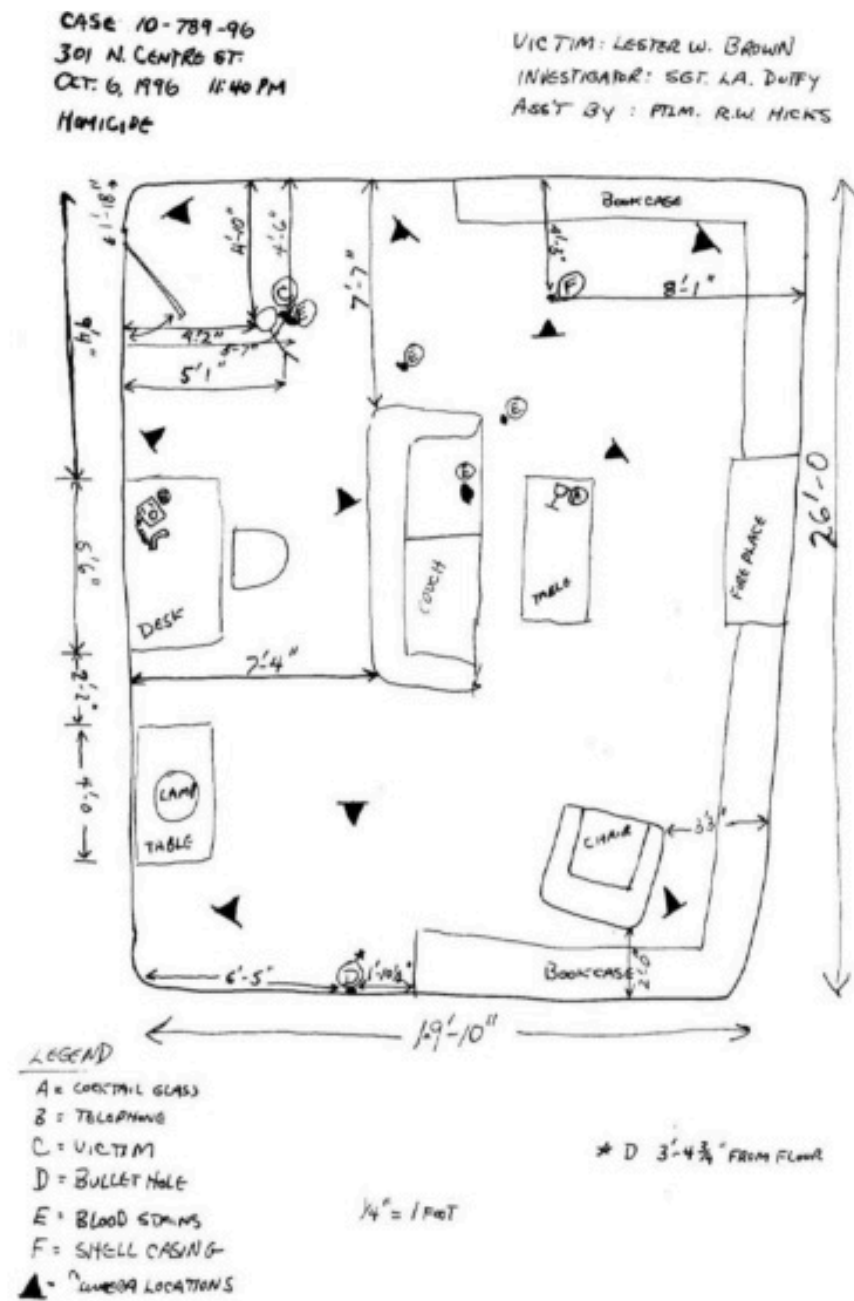


Fig : Rough Sketch

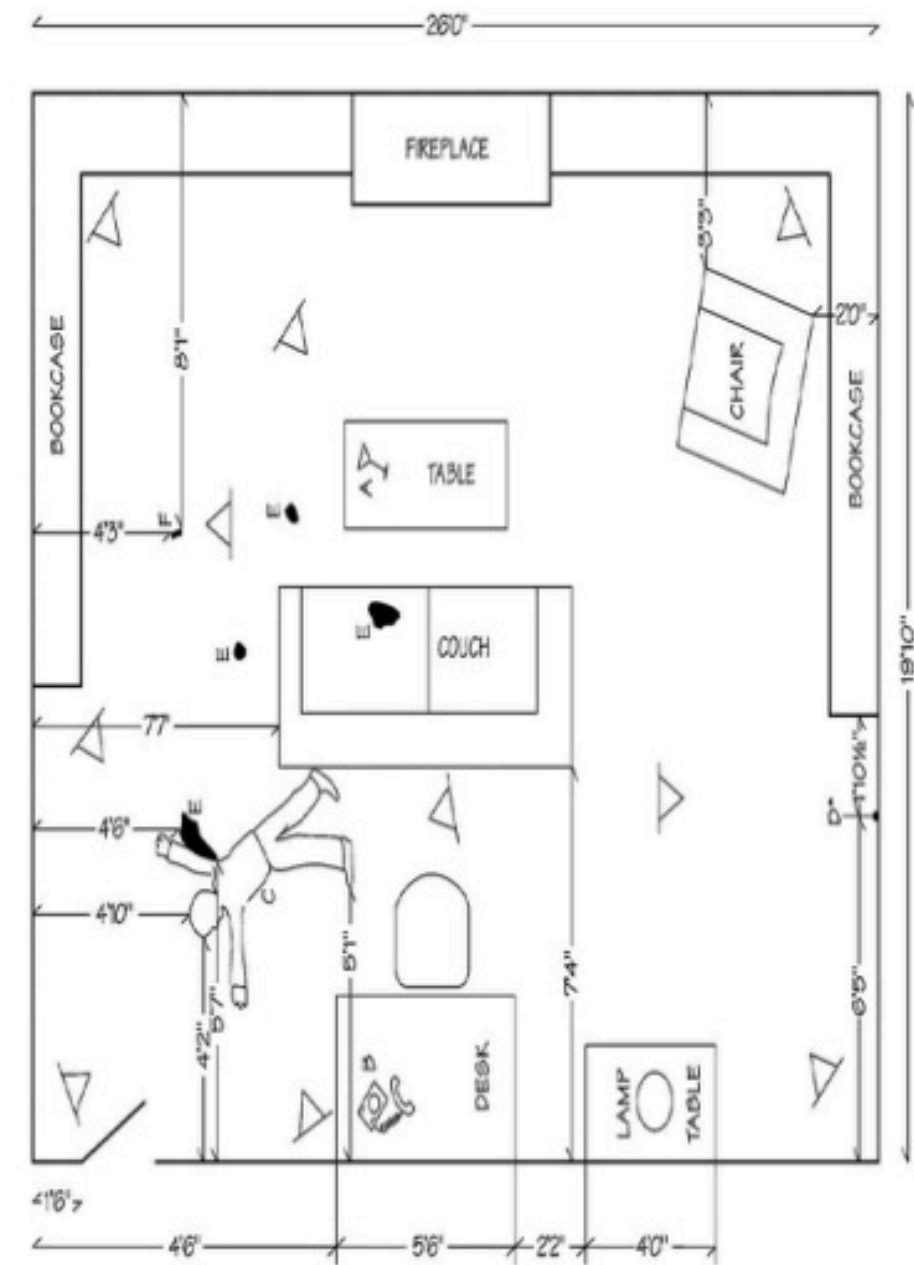


Fig : Final Sketch



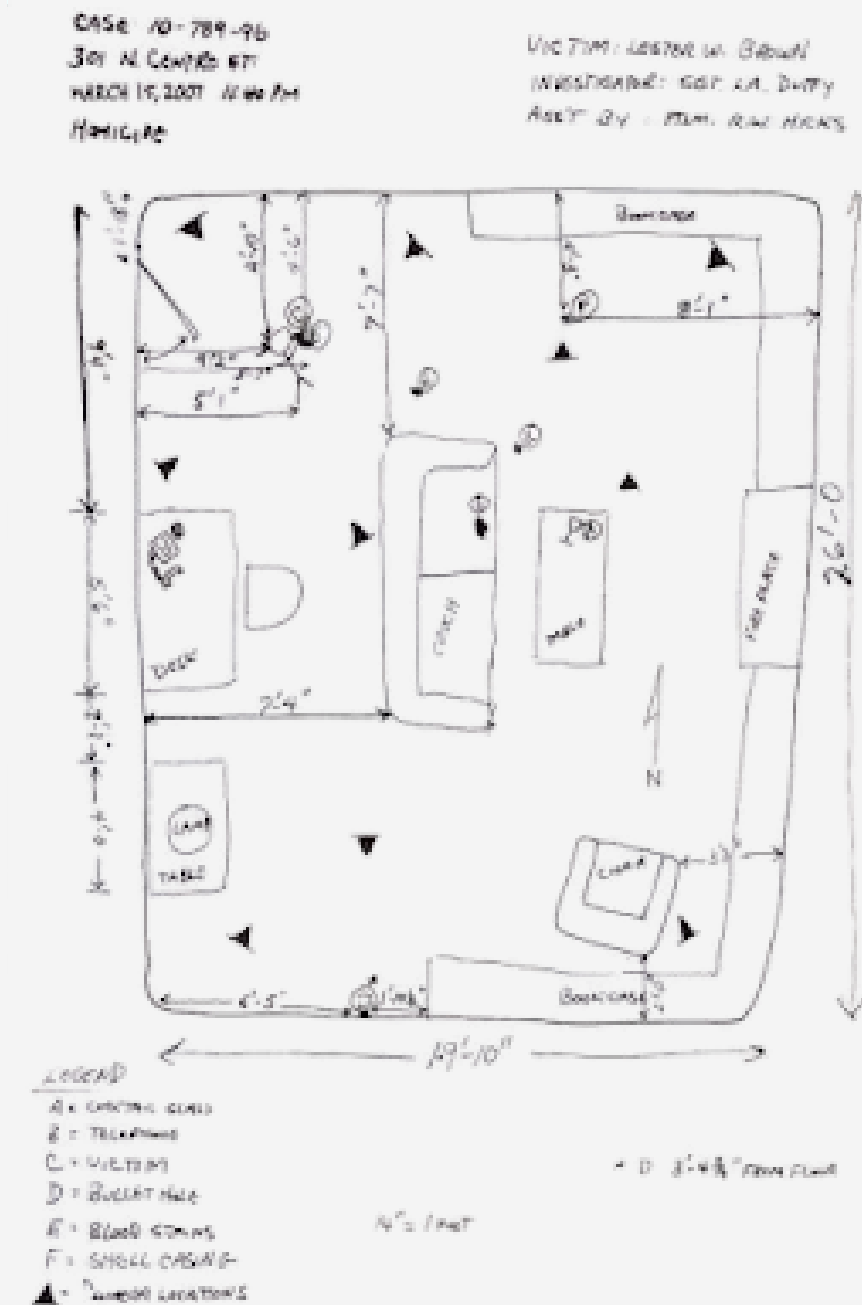
Perspectives in Crime Scene Sketching :

- ◆ Overhead View (Bird's Eye View)
- ◆ Elevation View (Side View)

Note: Sketchers can combine both perspectives and include photographs for thorough documentation.

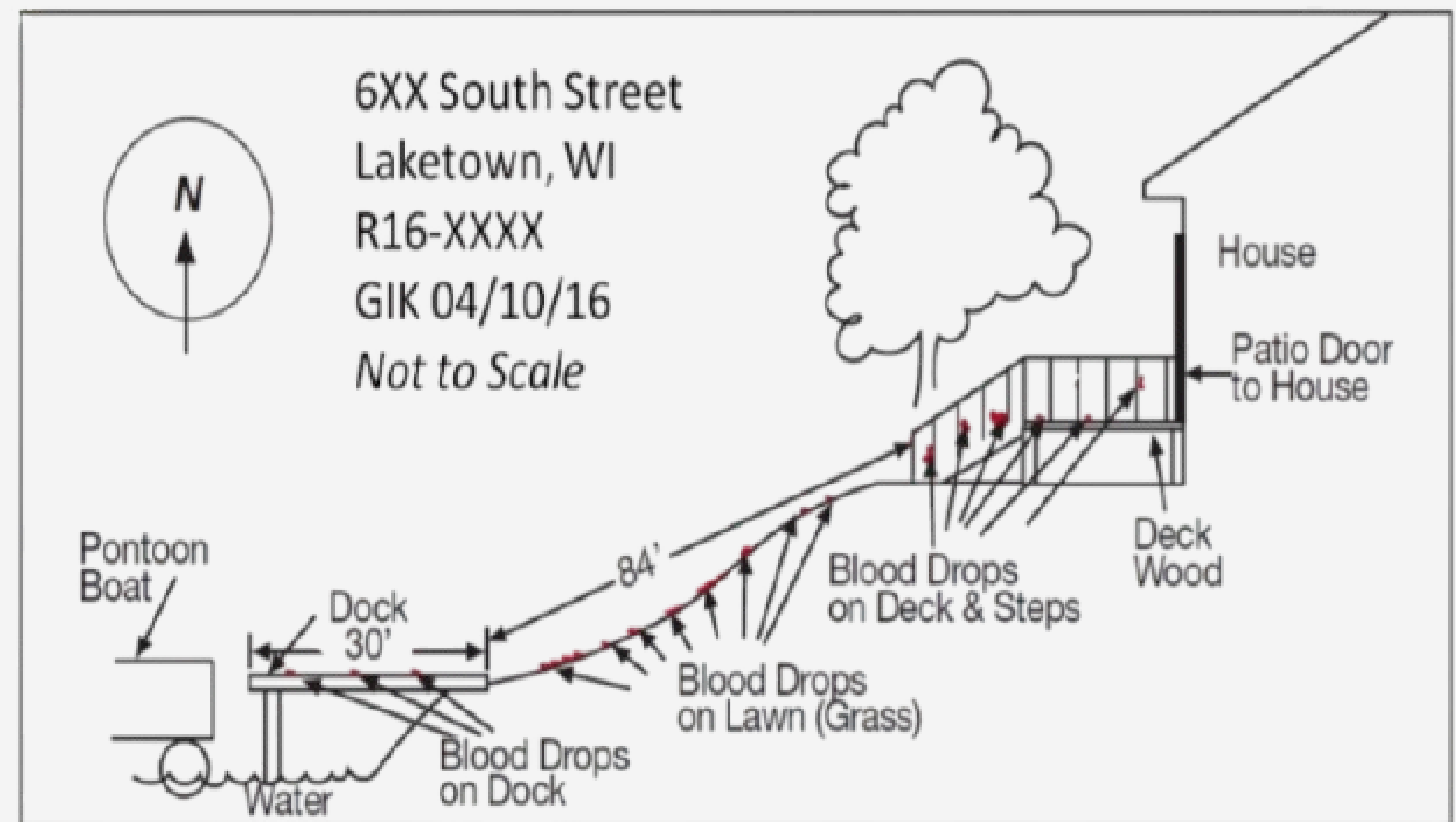
1. Overhead View (Bird's Eye View)

- Drawn from above (looking-down perspective)
- Most commonly used and easily understood
- Helps show layout and position of evidence clearly
- Recognizable by investigators, prosecutors, and juries



2. Elevation View (Side View)

- Used when evidence is placed at various heights
- Shows vertical relationships (e.g., items on walls or shelves)
- Often supplements photographs and overhead sketches
- Useful for presenting complete scene documentation

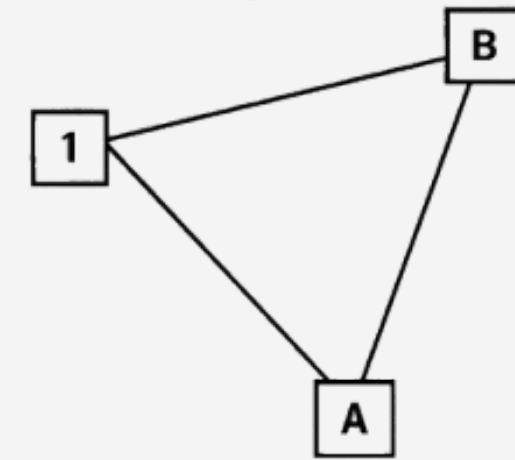


Measuring Techniques for Sketching :

- ◆ **Triangulation**
- ◆ **Polar coordinates**
- ◆ **Base line or fixed line**
- ◆ **Cross projection Method**

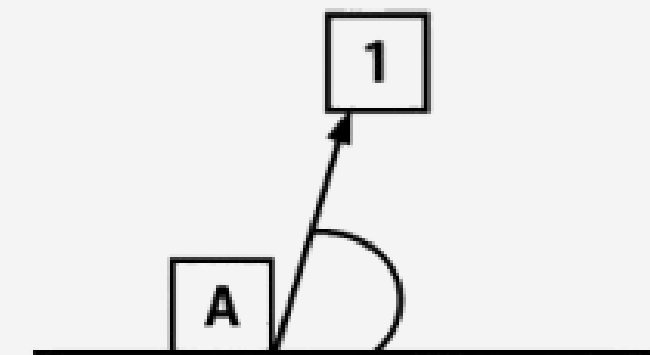
1. Triangulation : Select two fixed points, measure the distance between them, and prepare a basic layout sketch of the scene with the points included. Every item of evidence is then measured from these two points.

Triangulation



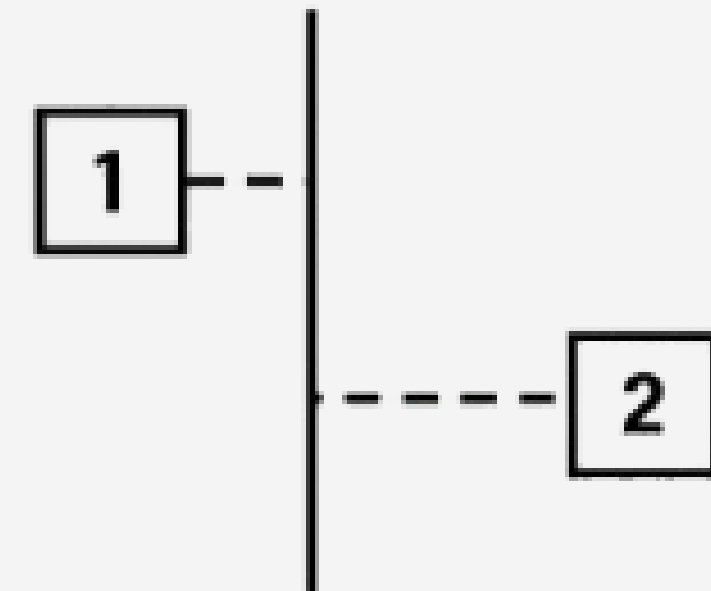
2. Polar coordinates : From a fixed point, all evidence is measured for distance from the point and is measured for direction or angle. The angle is measured by the use of a protractor or other survey instruments (laser transit equipment is frequently used)

Polar coordinates

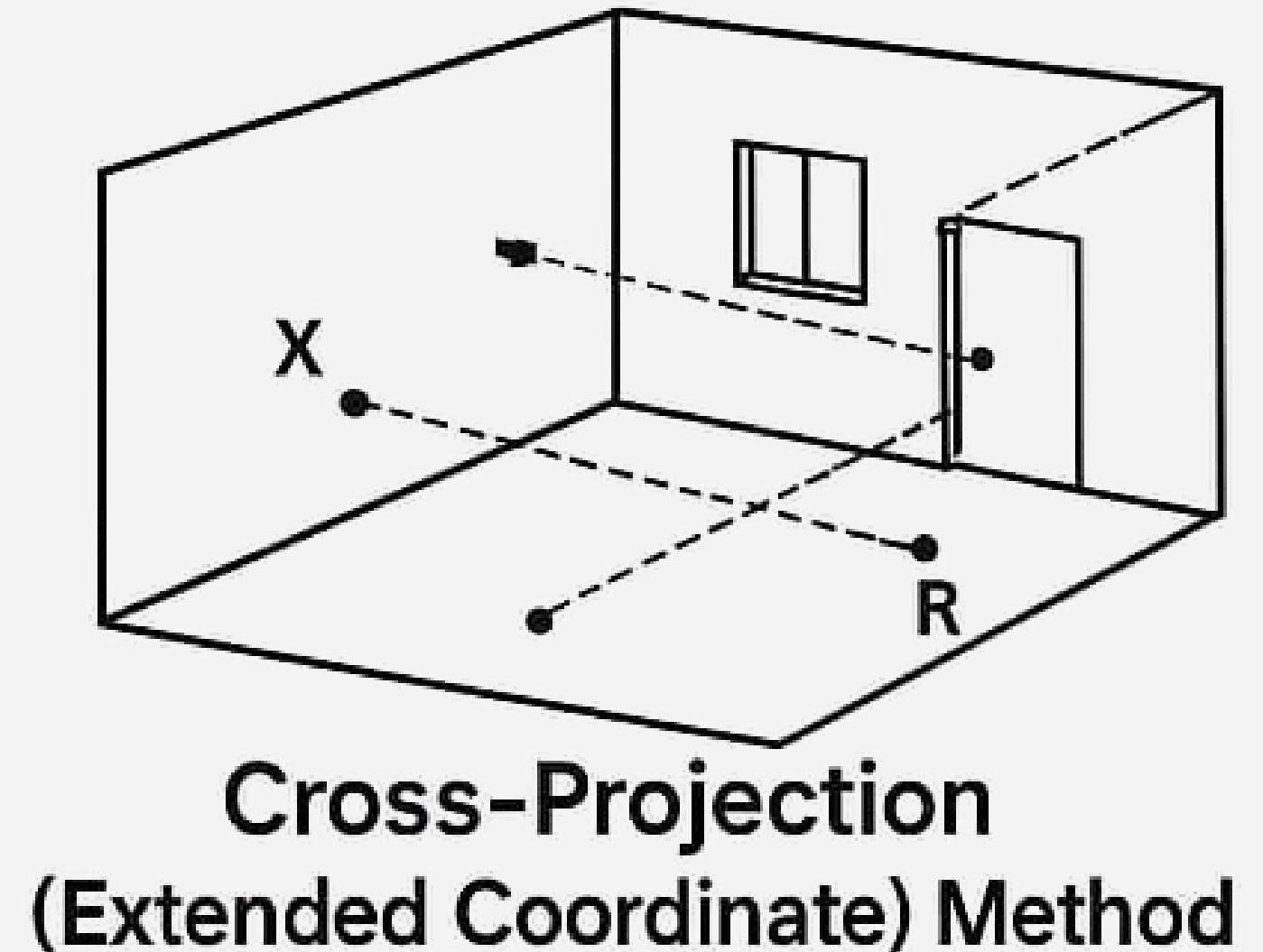


3. Baseline or fixed line: Establish a straight line or baseline between two fixed points. The items of evidence will be measured along the fixed line and at perpendiculars to the line. A variation of this technique uses two perpendicular lines (three fixed points). The evidence is measured from these perpendicular lines.

Base line



4. Cross projection Method: When the physical evidence is found on roof, walls, windows, etc. Then distances and height both are required to be measured. All four walls, and the roof fold out and extended flat on the floor, the walls, roof, doors and windows are shown in sketch. All measurement with respect to the evidence found on walls, windows, doors or roof are taken from each corner of the floor. wall and roof fig. This is also called as extended coordinate method.





Purpose of Sketching :

It is helpful for the following:

- Refreshes the memory of officers and witnesses
- Shows the exact location and relation of the evidence
- Provides permanent record of:
 - Scene layout and topography
 - Vehicle paths and skid marks
 - Suspect/victim movement
 - Distances in large areas
- Helps explain the scene to the judge, jury, and prosecutor
- Verifies and supports witness statements
- Removes unnecessary and confusing details



Thank You