

Grades 9-12 NTI Day #9 Forensics

Assignment: Please read the excerpt below as an independent reading assignment. Then read and answer the questions below the excerpt.

Start Reading Here



Sketches. Once the crime-scene investigator has taken sufficient notes and photographs, the investigator sketches the scene. The sketch serves many important functions in the legal investigation of a crime. If done correctly, a sketch can clearly show the layout of an indoor or outdoor crime scene and the relationship in space of all the items and features significant to the investigation. Sketches are especially important to illustrate the location of collected evidence. A sketch can clarify objects and features already described in notes or shown in photographs. Sketches can also show measurements over long distances and the topography of outdoor scenes. Possible paths of entry, exit, and movement through the scene may be speculated from a good sketch. Additionally, the state of the scene illustrated by the sketch may help to demonstrate the feasibility of a witness's testimony. To be effective, a sketch must be clear enough to be used in reconstruction by other investigative personnel and to illustrate aspects of the crime scene to a jury.

rough sketch

A sketch, drawn at the crime scene, that contains an accurate depiction of the dimensions of the scene and shows the location of all objects having a bearing on the case an accurate depiction of the dimensions of the scene and showing the location of all objects having a bearing on the case.

The Rough Sketch The investigator may have neither the skill nor the time to make a polished sketch of the scene. However, this is not required during the early phase of the investigation. What is necessary is a rough sketch containing an accurate depiction of the dimensions of the scene and showing the location of all objects having a bearing on the case. It shows all recovered items of physical evidence, as well as other important features of the crime scene (see Figure 2-4).

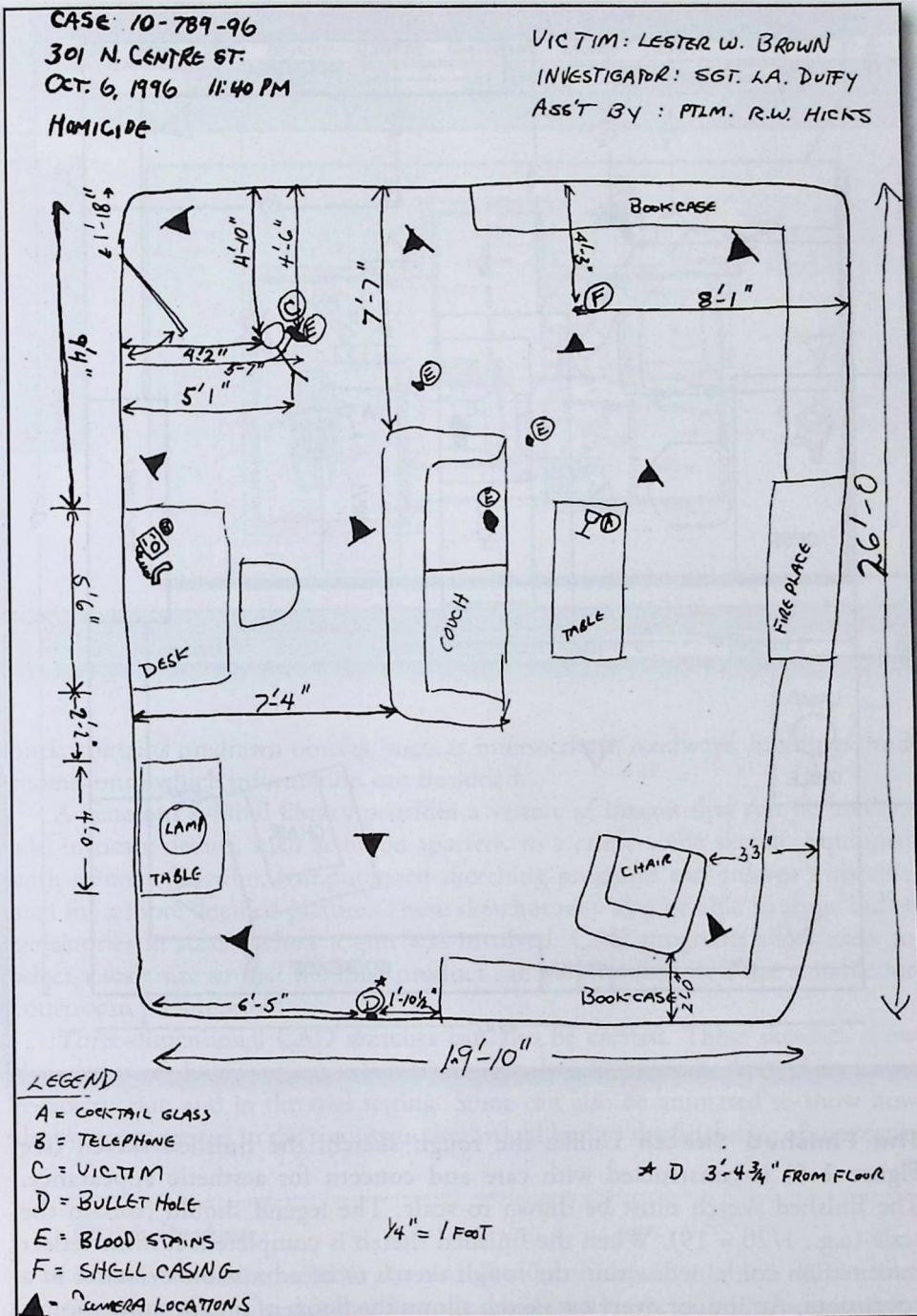
The following tools are required to create the sketch:

- Graph paper or drawing paper
- Two measuring tapes
- Clipboard or drawing surface
- Pencils
- Straightedge ruler
- Erasers
- Compass or GPS device
- Optional tools including drawing compasses, protractors (half- or full-circle), architect scales, French curves, drafting triangles, and rolling measuring devices.

All sketches must include the following features:

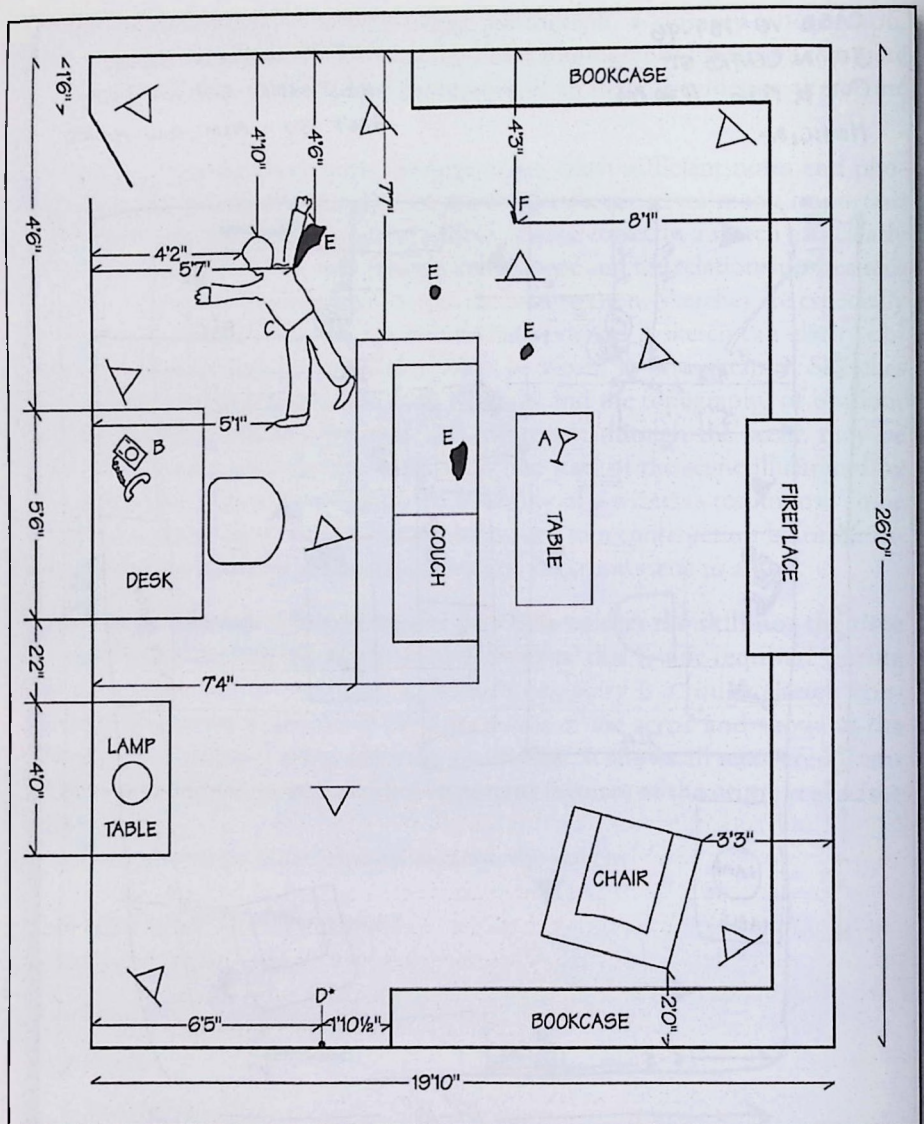
- The "title block" contains the case number, the agency number (if applicable), the name and title of the artist, the location of the scene, and the date and time at which the sketch was created. It may also state the victim's name, the names of any suspects, or the type of crime. The title block should appear in the lower-right corner of the sketch paper.

FIGURE 2-4 Rough-sketched diagram of a crime scene. Courtesy Sirchie Finger Print Laboratories, Inc., Youngsville, N.C., www.sirchie.com



- The “legend” should contain the key to the identity and dimensions of objects or evidence and may be represented by symbols, letters, or numbers.
- The “compass” should show an arrow to denote north in relation to the scene.
- The “body” of the sketch contains the drawing itself and all dimensions and objects located within it.

FIGURE 2-5 Finished sketch of a crime scene.
 Courtesy Sirchie Finger
 Print Laboratories, Inc.,
 Youngsville, N.C., www.
 sirchie.com



finished sketch

A precise rendering of the crime scene, usually drawn to scale

The Finished Sketch Unlike the rough sketch, the finished sketch (see Figure 2-5) is constructed with care and concern for aesthetic appearance. The finished sketch must be drawn to scale. The legend should contain the scale (e.g., $1/20 = 19$). When the finished sketch is completed, it must reflect information contained within the rough sketch to be admissible evidence in a courtroom. An indoor overview sketch shows the floors of one or more rooms, doors and windows, and any evidence or objects on the floor. An outdoor overview sketch is like an aerial view of a small or large outdoor scene. A final sketch can be done by an investigator or a hired professional. It can be done by hand in pen or by computer.

The process of computer-aided drafting (CAD) has become the standard method for reconstructing crime scenes from rough sketches (see Figure 2-6). The software, ranging from simple, low-cost programs to complex, expensive

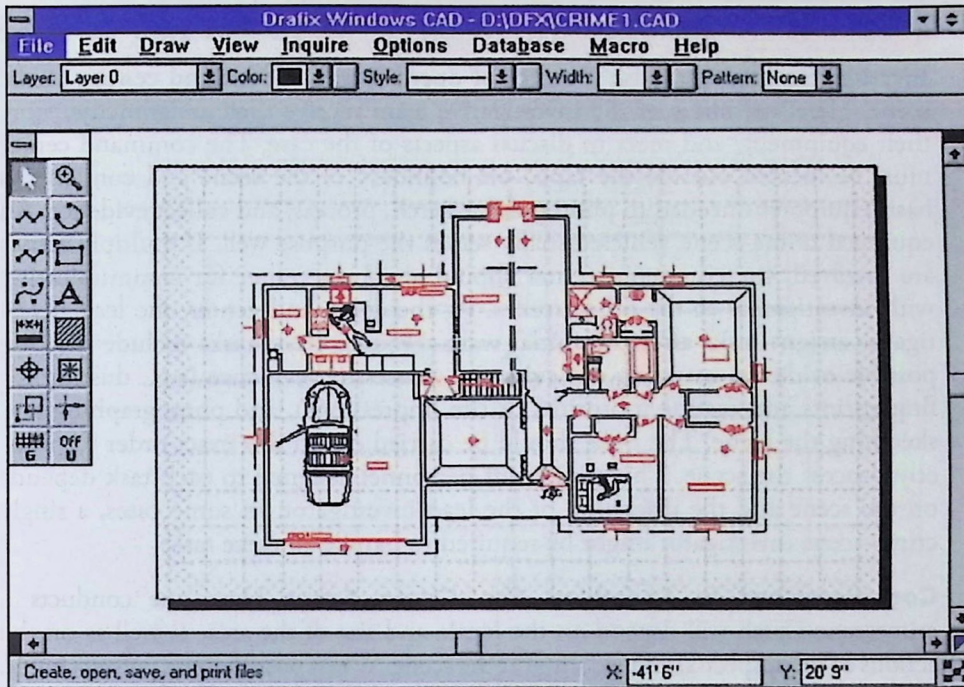


FIGURE 2-6
Construction of a crime scene diagram with the aid of a computer-aided drafting program.
Courtesy Sirchie Finger Print Laboratories, Inc., Youngsville, N.C., www.sirchie.com

ones, contains predrawn objects, such as intersections, roadways, buildings, and rooms, onto which information can be added.

A generous symbol library provides a variety of images that can be used to add intricate details, such as blood spatters, to a crime-scene sketch. Equipped with a zoom function, computerized sketching programs can enlarge a specific area for a more detailed picture. These sketches may also be able to show bullet trajectories in scenes where a gun was involved. CAD programs allow users to select a scale size so that the final product can be produced in a size suitable for courtroom presentation.

Three-dimensional CAD sketches can also be created. These sketches show the nature of the crime scene from many angles. This can be helpful in crime reconstruction and in the trial setting. Some can also be animated to show how the events suggested in the reconstruction would lead to the final state of the scene.

Quick Review

- Physical evidence includes any and all objects that can establish that a crime has been committed or can link the crime and its victim or its perpetrator.
- Forensic science begins at the crime scene, where investigators must recognize and properly preserve evidence for laboratory examination.
- The first officer to arrive must secure the crime scene.
- Investigators record the crime scene by using photographs, sketches, and notes and make a preliminary examination of the scene as the perpetrator left it.

STOP reading here. Skip to Questions

Multiple-Choice Questions

1. **What is the primary purpose of a rough sketch at a crime scene?**
 - a) To present a detailed and professional diagram for court
 - b) To provide an accurate depiction of the scene's dimensions and evidence locations
 - c) To replace the need for photographs
 - d) To show the crime scene from multiple angles
 2. **Which of the following is required in a rough sketch?**
 - a) A detailed artistic rendering
 - b) A scale representation
 - c) A compass indicating north
 - d) A digital version
 3. **What is one advantage of using computer-aided drafting (CAD) for crime scene sketches?**
 - a) It allows investigators to skip taking notes
 - b) It provides a three-dimensional view of the scene
 - c) It replaces photographs entirely
 - d) It eliminates the need for evidence collection
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Short-Answer Question

Explain why both rough sketches and finished sketches are necessary in crime scene investigations. How does each type of sketch contribute to the investigation and potential court proceedings?
