

Not all crime scenes require retrieval of physical evidence, and limited resources and personnel have forced many police agencies to restrict their efforts in this area to crimes of a more serious nature. Once the commitment is made to process a crime site for physical evidence, however, certain fundamental practices must be followed.

## Securing and Recording the Crime Scene

In order to be useful to investigators, evidence at a crime scene must be preserved and recorded in its original condition as much as possible. Failure to protect a crime scene properly or record its details accurately may result in the destruction or altering of evidence, or hinder the search for the perpetrator by misleading investigators about the facts of the incident.

### Secure and Isolate the Crime Scene

The first officer arriving on the scene of a crime must preserve and protect the area as much as possible. Of course, first priority should be given to obtaining medical assistance for individuals in need of it and to arresting the perpetrator. However, as soon as possible, extensive efforts must be made to exclude all unauthorized personnel from the scene. As additional officers arrive, measures are immediately initiated to isolate the area. (See Figure 2-1.) Ropes or barricades along with strategic positioning of guards will prevent unauthorized access to the area.

Sometimes the exclusion of unauthorized personnel proves more difficult than expected. Violent crimes are especially susceptible to attention from higher-level police officials and members of the press, as well as



**FIGURE 2-1** The first investigators to arrive must secure the crime scene and establish the crime-scene perimeter. Courtesy Sirchie Finger Print Laboratories, Inc., Youngsville, N.C., [www.sirchie.com](http://www.sirchie.com)

by emotionally charged neighbors and curiosity seekers. Every individual who enters the scene has the potential to destroy physical evidence, even if by unintentional carelessness. To exercise proper control over the crime scene, the officer protecting it must have the authority to exclude everyone, including fellow police officers not directly involved in processing the site or in conducting the investigation. Seasoned criminal investigators are always prepared to relate horror stories about crime scenes where physical evidence was rendered totally valueless by hordes of people who trampled through the site. Securing and isolating the crime scene are critical steps in an investigation, the accomplishment of which is the mark of a trained and professional crime-scene investigative team.

Once the scene has been secured, a lead investigator starts evaluating the area. First, he or she determines the boundaries of the scene, and then establishes the perpetrator's path of entry and exit. Logic dictates that obvious items of crime-scene evidence will first come to the attention of the crime-scene investigator. These items must be documented and photographed. The investigator then proceeds with an initial walk-through of the scene to gain an overview of the situation and develop a strategy for systematically examining and documenting the entire crime scene.

### Record the Scene

Investigators have only a limited amount of time to work a crime site in its untouched state. The opportunity to permanently record the scene in its original state must not be lost. Such records not only will prove useful during the subsequent investigation, but also are required for presentation at a trial in order to document the condition of the crime site and to delineate the location of physical evidence. Photography, sketches, and notes are the three methods for crime-scene recording (see Figure 2-2). Ideally all three should be employed; however, personnel and monetary limitations often

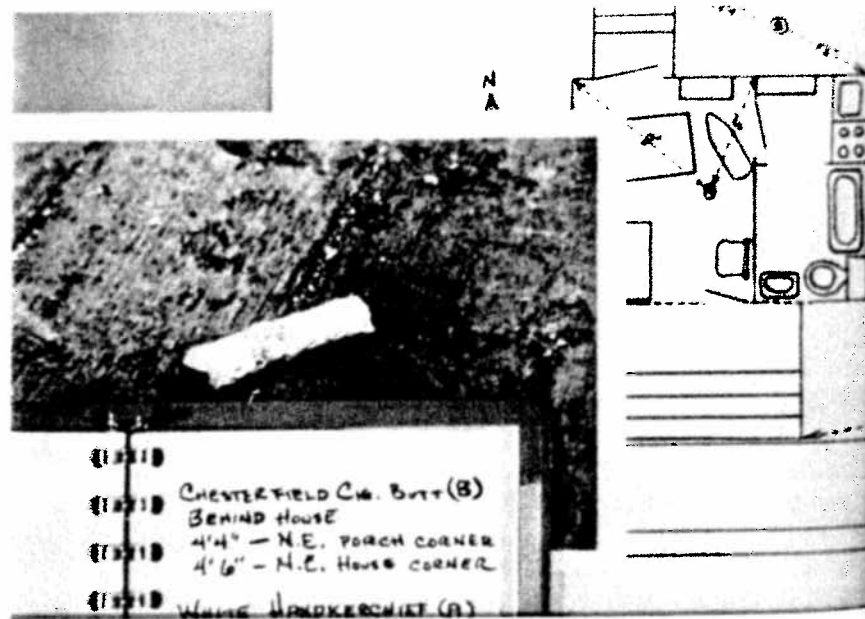


FIGURE 2-2 The finding of an evidential cigarette butt at the crime scene requires photographing it, making a sketch showing its relation to the crime scene, and recording the find in field notes. Courtesy Police Science Services, Niles, Ill.

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prohibit the use of photography at every crime site. Under these circumstances, departmental guidelines will establish priorities for deploying photographic resources. However, there is no reason not to make sketches and notes at the crime scene.

**Photography** The most important prerequisite for photographing a crime scene is for it to be unaltered. Unless injured people are involved, objects must not be moved until they have been photographed from all necessary angles. If objects are removed, positions changed, or items added, the photographs may not be admissible as evidence at a trial, and their intended value will be lost. If evidence has been removed or moved prior to photography, the fact should be noted in the report, but the evidence should not be reintroduced into the scene in order to take photographs.

Each crime scene should be photographed as completely as possible. This means that the crime scene should include the area in which the crime actually took place and all adjacent areas where important acts occurred immediately before or after the commission of the crime. Overview photographs of the entire scene and surrounding area, including points of exit and entry, must be taken from various angles. If the crime took place indoors, the entire room should be photographed to show each wall area. Rooms adjacent to the actual crime site must be similarly photographed. If the crime scene includes a body, photographs must be taken to show the body's position and location relative to the entire scene. Close-up photos depicting injuries and weapons lying near the body are also necessary. After the body is removed from the scene, the surface beneath the body should be photographed.

As items of physical evidence are discovered, they are photographed to show their position and location relative to the entire scene. After these overviews are taken, close-ups should be taken to record the details of the object itself. When the size of an item is significant, a ruler or other measuring scale may be inserted near the object and included in the photograph as a point of reference.

The digital revolution promises to bring enhanced photographic capabilities to the crime scene. For example, individual images of the crime scene captured with a digital camera can be stitched together electronically to reveal a near three-dimensional panoramic view of the crime scene (see Figure 2-3). With the aid of a computer, any area of the scene captured digitally can be enhanced and examined in fine detail.

The use of videotape at crime scenes is becoming increasingly popular because the cost of this equipment is decreasing. The same principles used in crime-scene photographs apply to videotaping. As with conventional photography, videotaping should include the entire scene and the immediate surrounding area. Long shots as well as close-ups should be taken in a slow and systematic manner. Furthermore, it is desirable to have one crime-scene investigator narrate the events and scenes being taped while another does the actual shooting.

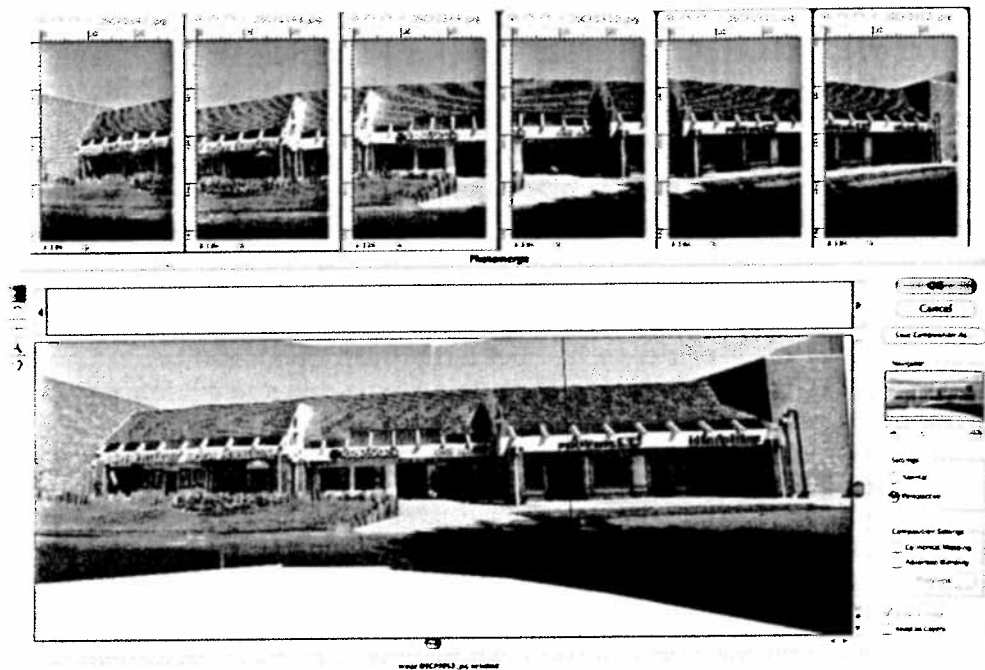
While videotaping can capture the sounds and scenes of the crime site with relative ease, the technique cannot at this time be used in place of still photography. The still photograph remains unsurpassed in the definition of detail it provides to the human eye.

**Sketches** Once photographs have been taken, the crime-scene investigator sketches the scene. The investigator may have neither the skill nor the time to make a polished sketch of the scene. However, this is not required

### WebExtra 2.1

Making a Photographic  
Record of the Crime Scene

[www.prenhall.com/hsforensics](http://www.prenhall.com/hsforensics)



**FIGURE 2-3** Individual Images (top) are shown before being electronically stitched together into a single panoramic image (bottom). Individual photographs should be taken with about a 30 percent overlap. Courtesy Imaging Forensics, Fountain Valley, Calif., [www.imagingforensics.com](http://www.imagingforensics.com)

#### 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.

#### finished sketch

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

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.

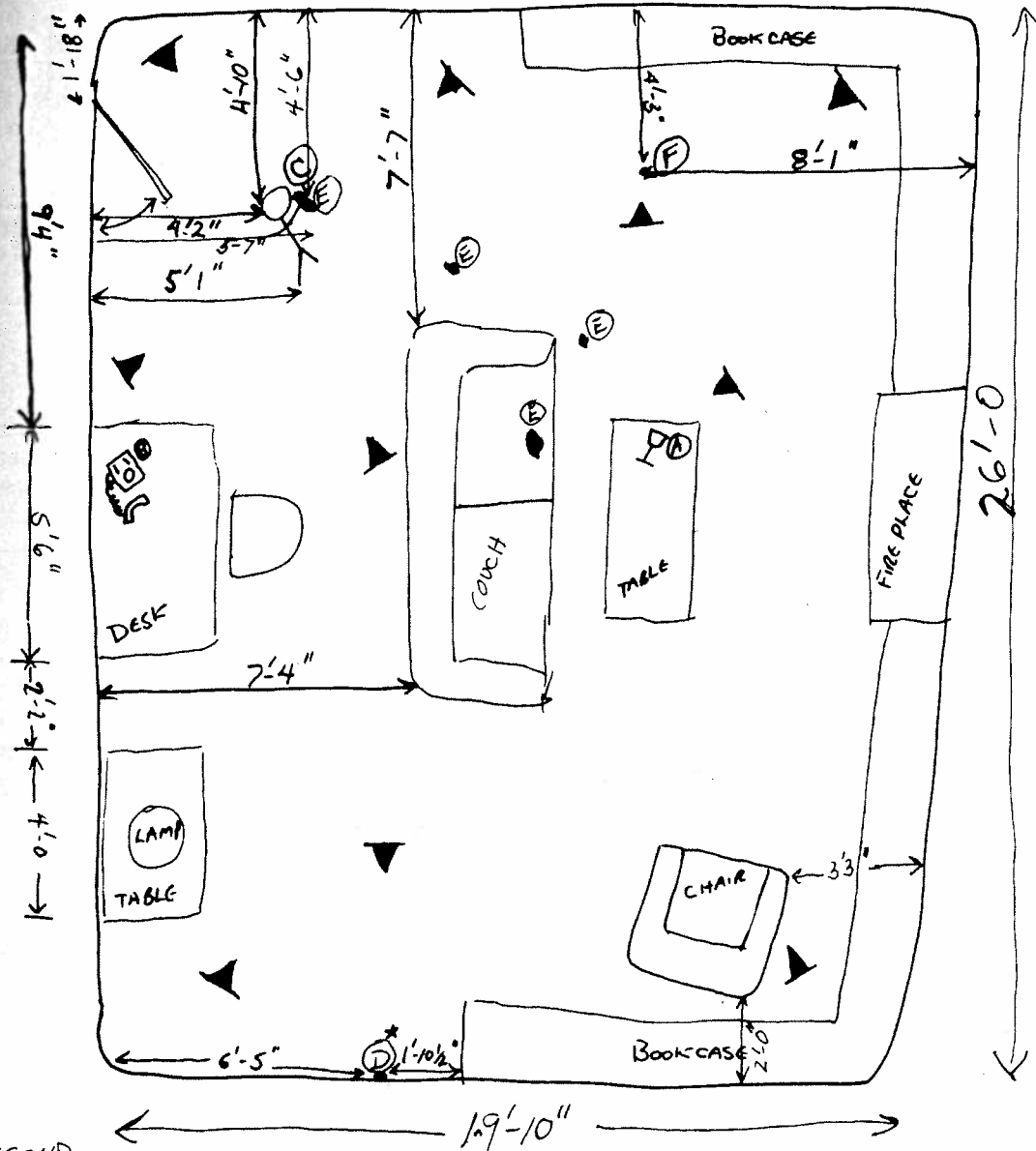
A rough sketch is illustrated in Figure 2-4. It shows all recovered items of physical evidence, as well as other important features of the crime scene. Objects are located in the sketch by distance measurements from two fixed points, such as the walls of a room. It is important that distances shown on the sketch be accurate and not the result of a guess or estimate. For this reason, all measurements are made with a tape measure. The simplest way to designate an item in a sketch is to assign it a number or letter. A legend or list placed below the sketch then correlates the letter to the item's description. The sketch should also show a compass heading designating north.

Unlike the rough sketch, the finished sketch in Figure 2-5 is constructed with care and concern for aesthetic appearance. When the finished sketch is completed, it must reflect information contained within the rough sketch in order to be admissible evidence in a courtroom. Computer-aided drafting (CAD) has become the standard method for reconstructing crime scenes from rough sketches. The software, ranging from simple, low-cost programs to complex, expensive ones, contains pre-drawn intersections, roadways, buildings, and rooms onto which information can be entered (see Figure 2-6). 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 can focus on a specific area for a more detailed

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 INVESTIGATOR: SGT. L.A. DUFFY  
 ASST BY: PTL. R.W. HICKS



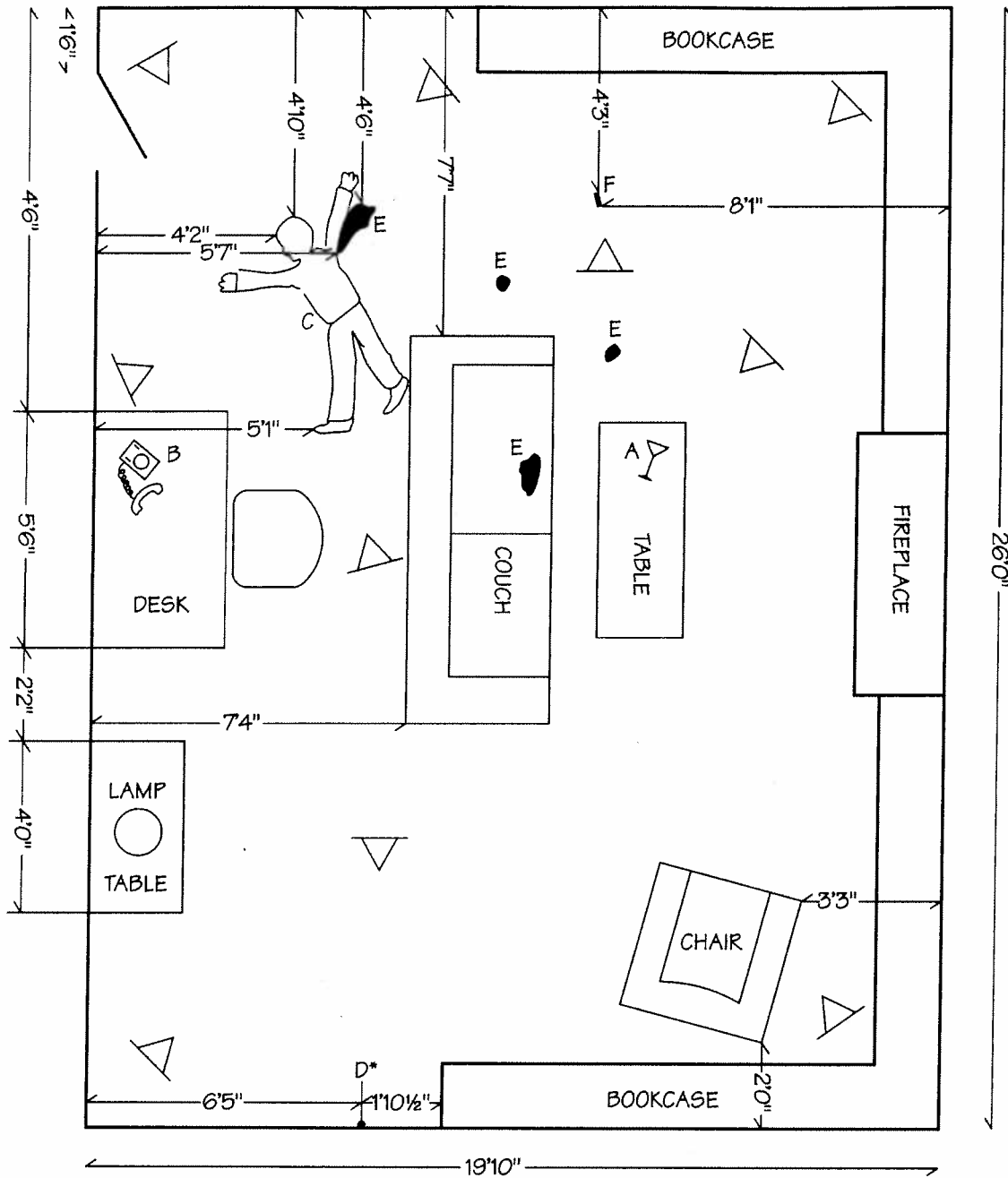
LEGEND

- A = COCKTAIL GLASS
- B = TELEPHONE
- C = VICTIM
- D = BULLET HOLE
- E = BLOOD STAINS
- F = SHELL CASING
- ▲ = CAMERA LOCATIONS

\* D 3'-4 3/4" FROM FLOOR

1/4" = 1 FOOT

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



**FIGURE 2-5** Finished-sketch diagram of a crime scene. Courtesy Sirchie Finger Print Laboratories, Inc., Youngsville, N.C., [www.sirchie.com](http://www.sirchie.com)

picture. The CAD programs allow the user to select scale size so that the final product can be produced in a size suitable for courtroom presentation.

**Notes** Note taking must be a constant activity throughout the processing of the crime scene. These notes must include a detailed written description of the scene with the location of items of physical evidence recovered. They must also identify the time an item of physical evidence was discovered, by whom, how and by whom it was packaged and marked, and the disposition of the item after it was collected. The note taker must keep in mind that

**FIGURE**  
drafting

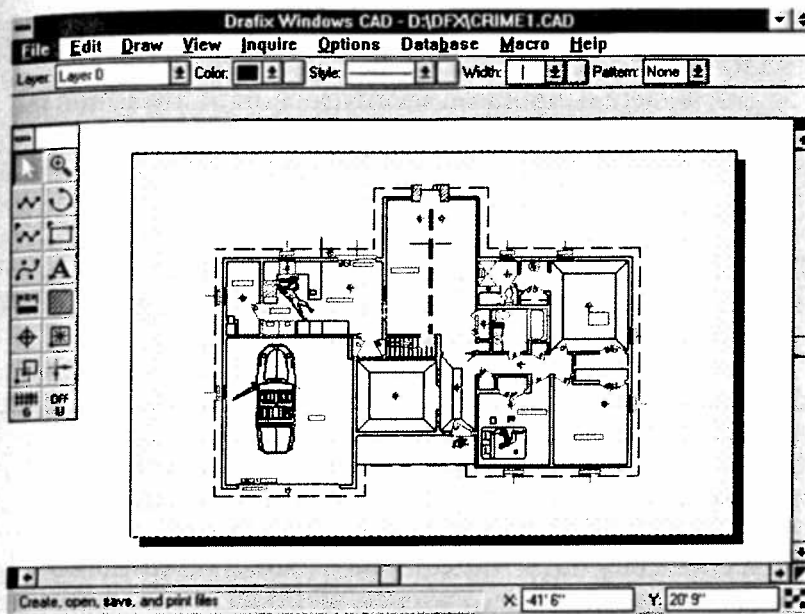
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**FIGURE 2-6 Construction of a crime-scene diagram with the aid of a computer-aided drafting program.** Courtesy Sirchie Finger Print Laboratories, Inc., Youngsville, N.C., [www.sirchie.com](http://www.sirchie.com)

this written record may be the only source of information for refreshing one's memory months, perhaps years, after a crime has been processed. The notes must be sufficiently detailed to anticipate this need. Tape-recording notes at a scene can be advantageous—detailed notes can be taped much faster than they can be written. Another method of recording notes is to narrate a videotape of the crime scene. This has the advantage of combining note taking with photography. However, at some point the tape must be transcribed into a written document.

### Key Points

- 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.

## Dealing with Physical Evidence

After the lead detective has conducted a preliminary walk-through, a more thorough search for physical evidence begins. Once found, physical evidence must be collected and stored in a way that preserves its integrity for forensic comparison and analysis. As a result, law enforcement officials have developed specific procedures for finding, collecting, and transporting physical evidence that preserve its evidentiary value.

1. What is the first step in processing a crime scene?
2. Why is it important to exclude onlookers from a crime scene?
3. Name three methods of recording a crime scene, and list one unique advantage of each.
4. What is the most important prerequisite for photographing a crime scene?
5. If objects have been moved or removed from a crime scene, the investigator should...
6. Name and describe 2 kinds of sketches prepared for a crime scene.
7. What information must be included in written notes made at the crime scene?