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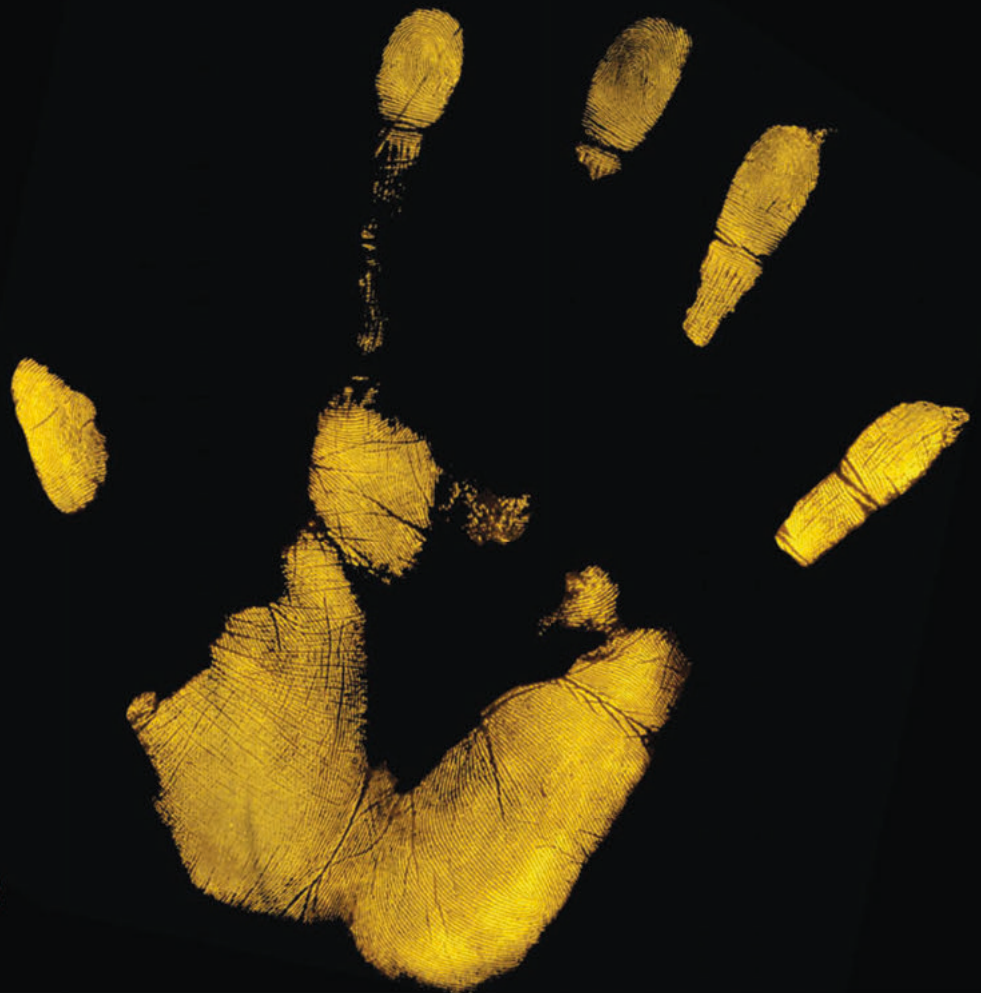
**Alexandre Beaudoin  
Daniel Guillemette  
Laurence McMullen**

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**Essential Guide to**  
**CRIME SCENE**  
**Intervention**

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**TRANSLATED BY DAVID WARRINER**



**ÉDITIONS ANDRÉ FONTAINE**



**Alexandre Beaudoin, Daniel Guillemette  
and Laurence McMullen**

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**Essential Guide to Crime Scene Intervention**

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# CHAPTER 1

# CRIME SCENE INTERVENTION

## Introduction

Police officers can expect to encounter many different types of situations over the course of their career. As such, it is unrealistic to expect a single intervention model to cover every eventuality.

Searching for clues and gathering information are an essential part of any police investigation in order to substantiate the evidence. There are some important considerations when conducting these essential operations:

- The officer's actions must be legal.
- The officer must be able to demonstrate the source of any evidence and establish that its integrity was preserved.

In this chapter, you will see that there is no catch-all method that applies in every situation. The aim of this chapter, therefore, is to set out some basic rules to take into account in any intervention.

## INDIVIDUALS RESPONSIBLE FOR PROCESSING A CRIME SCENE

### Patrol Officer

In many police organizations, patrol officers are responsible for examining scenes of minor crimes (crimes against property), such as:

- Break-and-enter
- Recovery of a stolen vehicle
- Mischief
- Other small-scale offences

When a major crime is committed (crime against a person), the role of a patrol officer is limited to assisting the victim, securing the area, ensuring evidence is protected and establishing a perimeter to protect the crime scene. The patrol officer's role might not seem very important at first, but the very opposite is true. Patrol officers are often the first on the scene and their actions and observations can have a significant impact on the course of the investigation.

## **Investigator**

Investigators are generally called to a crime scene following a request by a patrol officer or when the seriousness of the crime requires their expertise. At that time, they will have to assess the situation, determine their needs and make the decision to process the scene alone or work in collaboration with a crime scene specialist.

## **Crime Scene Specialist**

Crime scene specialists intervene at all scenes of major crimes, as well as in situations that require the use of specialized equipment.

## **BASIC OBJECTIVES**

Generally, the goal of a police investigation is to uncover the truth surrounding the circumstances that gave rise to an event. Whether officers are examining a crime scene or planning a search, it is important to define what the purpose of the action is, for instance to:

- Recover evidence that demonstrates the implication of a person in the crime
- Corroborate the statement of a witness, complainant or victim
- Produce evidence in legal proceedings

## **Recovering Evidence that Demonstrates the Implication of a Person in the Crime**

It is crucial here to highlight the importance of Locard's exchange principle, whereby there is inevitably a reciprocal transfer of materials or substances whenever two objects come into contact.

As a result, any individual who enters a place will inadvertently leave personal traces. By the same token, that individual will also take away elements from that place when leaving. It is important to understand that this principle applies not only to both the suspect and the victim, but also to any contact between the suspect and victim.

## **Corroborating the Statement of a Witness, Complainant or Victim**

Taking the statement of a witness, complainant or victim is a crucial step in any investigation, because it can enable the officer to obtain a great deal of information about the surrounding circumstances of a crime. The witness's, complainant's or victim's version of the facts should include a detailed description of the following:

- The location of the incident and main individuals involved
- The behaviour and whereabouts of the suspect
- Any objects touched by the suspect, and in what way

- Any changes sustained at the location
- Evidence that an offence has been committed
- Any other relevant details

A good statement will facilitate the search for relevant evidence and the analysis of that evidence, no matter what the situation is.

Examining the crime scene and conducting a search are both opportunities for you to corroborate different versions of events.

This may involve:

- Discovering evidence or any other element mentioned in the statement.
- Taking photographs and making sketches that objectively confirm certain information.

## **Judicial Proceedings**

Last but certainly not least in the investigation process is the presentation of evidence in court. To render an informed decision, judges and jury members need to understand precisely what happened. As such, police officers can be expected to bring the crime scene or the place of the search to the courtroom using virtual means including photographs, sketches and video recordings. These tools may then come into play as other individuals involved in the process give evidence, shed light on the various exhibits and ultimately help the court see all the facts.

## **Different Types of Interventions**

Every incident is different in some way. However, as a general rule, the circumstances that may lead police officers to carry out a search for evidence can be categorized into the following three types of interventions:

- Examining a crime scene based on information obtained from a complainant or victim
- Examining a crime scene in a situation where a victim is not available to provide information
- Carrying out a search warrant

## **Examining a Crime Scene Examination Based on Information Obtained from a Complainant or Victim**

There are some clear benefits to obtaining information from a complainant or victim: someone can tell you what happened and is in a position to put the incident in context, specify any objects that are missing or have been moved, and indicate what is—or is not—normal.

However, there is also a risk: readily available information may lead you to concentrate on facts a person has reported, rather than conducting a more thorough examination of the scene or the premises. It is crucial to remember that a person who is requesting your help does not have your level of expertise. There is nothing wrong with asking someone if they noticed something that could be relevant, but relying on their answer alone may lead you to make a mistake. One further risk is the possibility of the witness becoming the prime suspect once the crime scene has been examined.

## **Examining a Crime Scene Examination in a Situation where a Victim is not Available to Provide Information**

It is a more complex task to examine a crime scene when no victim is available to provide information. Your approach to the situation will therefore depend on the information gathered from the first individuals on the scene and your observations from that information. We will discuss how to plan an intervention and adapt an approach to different situations later in this chapter.

It is important to approach a scene like this objectively and consider every theory. As you investigate further, you will be able to eliminate some of the possibilities and zero in on the most plausible theory.

It can be easy to fall into the trap of assuming at the outset of your examination what might have happened and working subconsciously to prove it. This kind of approach will distort your perception as well as your different observations, and it will have a negative influence on your investigation and on your findings as a result.

## **Carrying Out a Search Warrant**

Since this type of intervention requires legal authorization, police officers carrying out a search warrant have grounds that justify their intervention from the outset. Unlike the two previous scenarios, officers conducting a search must first determine what they are looking for, as well as the technical means they intend to use.

To adequately prepare these motives, officers must:

- Analyze every aspect of the case, including witness statements and any information obtained through surveillance.
- List the objects they are looking for.
- Consider whether crime scene technicians will be needed to examine the scene and any evidence, and whether the use of a forensic light source, Bluestar<sup>®</sup> and any other technique will be required.

The most common error made in this type of situation is to focus too heavily only on elements that are considered essential. This type of approach will influence your perception of the scene and can lead you to miss other elements that may be just as relevant.

Ultimately, police officers who are preparing to search a place for evidence must plan their intervention with an open mind and as objectively as possible. They must use their imagination to try to reconstruct the circumstances of the incident that led to this intervention.

# **PROCESSING A CRIME SCENE**

## **Essential Considerations**

### ***Protection of Life***

As a police officer, your number one concern is to come to the assistance of any individuals in danger or distress. It is your job to provide or seek medical assistance for the wounded and take the time to reassure or calm any victims who are experiencing an emotional reaction. If a victim is deceased and no signs of obvious death are apparent (as per the relevant rule applicable in the jurisdiction), you must ensure that death is pronounced by a doctor or transport the body to a hospital.



## **Protection of Evidence**

The technology available today makes it possible to examine and reveal evidence that can barely be detected by the naked eye. Police officers must be vigilant in their every movement and must remain alert, no matter how stressful the situation. They must take whatever measures are necessary to protect certain evidence that may be compromised by time, temperature or the presence of the police at the scene. Before moving any evidence, officers should take photographs and draw sketches (with measurements) to show where any such exhibits were found at the scene.

- Examples:**
1. You are called to the scene of a homicide. You notice that there is a footprint in the snow and that it is starting to melt because the temperature is rising. Covering the print in the snow will not preserve it and you have no other way to protect it. In your estimation, by the time the crime scene specialist arrives, the impression will have melted or changed significantly. You must therefore take a photograph of the print, measure it and either trace it with a pencil and paper or make a cast using clear cellulose acetate. If you do not have a camera, draw a sketch with measurements to situate the footprint at the crime scene. Then, measure and trace the print. It is better to have a few measurements and a footprint tracing than nothing at all.
  2. You arrive at a crime scene and notice a gun, which you believe is likely the crime weapon. The gun is on the sidewalk right in front of the house where the crime was committed. You are alone on the scene and the incident is attracting more and more bystanders. As a result, you cannot ensure the gun will be protected where it was found. In situations like this, you must document the location of the weapon and, if possible, mark the location on the ground, then put it in a safe place the way you found it, without handling it any more than absolutely necessary.

## **Clothing and Equipment**

Examining a crime scene or conducting a search can often involve many hours of work in situations that may be far from comfortable. Try to imagine processing a footprint in the snow when the temperature is minus 30 degrees Celsius. You will soon see for yourself how important it is to be suitably dressed for the task at hand.

Experience may already have taught you that if you are not properly dressed for a job, the quality of your work will suffer. If you are worried about staining your clothes and are under-dressed for the cold or ill-prepared for the rain, you will be uncomfortable and less able to focus.

The same applies to your equipment. For instance, not replacing the batteries in a flashlight with batteries that are nearly out of power will be a great hindrance when examining a crime scene in low light, and not having sufficient containers to gather evidence will increase the risk of exhibits deteriorating.

### **Comprehensive Equipment List**

- Note-Taking
  - Notebook
  - Pens, pencils and eraser
  - 8.5" × 11" (216 mm × 279 mm) paper

- Camera
  - Blank memory card to record your photographs
  - Spare batteries
  - Rulers
- Packaging material
  - Surgical gloves
  - Face masks
  - Paper bags for evidence
  - White writing paper
  - Paper envelopes
  - Boxes to transport firearms
  - Labels and seals for evidence
- Bodily substance collection kit
- Fingermark collection kit
- Footprint and tire impression kit
- Flashlight
  - Spare batteries
  - Spare bulb

## **Two Key Principles**

### **Be Objective**

Even if you already have certain information that might help you to begin working, you should keep an open mind and systematically seek to corroborate it. It is important to approach all scenes and premises with detachment. If your observations and findings corroborate the known facts, so much the better.

### **Analyze and Filter Your Findings**

One of the greatest difficulties when processing a crime scene or conducting a search can be to determine what is relevant and what isn't. Because it is crucial to assess the relevance of every item of evidence you discover and every observation you make, the following tips may help:

- Observe the condition and age of the items you find. This can help you to determine whether they are relevant to the crime scene or search.

**Example:** One cigarette butt found at an outdoor crime scene may look more recent than another and potentially be more relevant to the incident.

- Establish a link between the location where evidence is found and the circumstances of the event.

**Example:** At the scene of a sexual assault, strands of hair are found in the bedsheets and bathtub. According to the victim's statement, the suspect did not go into the bathroom, so the hair found there may reasonably be excluded.

- Try to put yourself in the suspect's shoes to determine his or her actions. Most suspects tend to behave like anyone else would. A suspect who gained entry through a window probably had to lean on the same place as you would have done. It is important to pay attention to these places and have them forensically examined. Use your imagination.

**Example:** When a van was examined, a search for fingerprints on the exterior surface of the doors demonstrated that the suspect wore gloves. The search not only revealed that two individuals wearing different types of gloves had used the vehicle, but also pinpointed where they had been sitting. It would be easy to refrain from searching the inside of the van based on the fact that the suspects were wearing gloves, but in fact, there may be areas to examine where a suspect could have removed the gloves at some point. Thinking about these areas might lead you to examine a piece of plastic that a suspect may have attempted to rip out from the dashboard. To do so, the suspect would have had to insert his or her fingers in a narrow crack in order to pull the piece out, which would have been impossible to do with gloves on. In a case such as this, searching for fingerprints on the interior surface of the piece of plastic could reveal traces that would enable the identification of the suspect.

- Select places to search according to the needs of your investigation and be mindful of your legal obligations. Conducting a search is not an opportunity to pry, nor is it a reason to encroach upon an individual's privacy.

## Points of Interest

A point of interest is a highly probable place where a suspect or suspects could have been. Points of interest can be an important source of information about suspects and their *modus operandi*. There may be several points of interest at any given crime scene. Examining these can help you to reconstruct the sequence of events.

Here are some examples:

- Suspect's point of entry
- Focal point (the place where the offence was committed)
- Place where the victim was discovered
- Suspect's path of contamination
- Suspect's point of exit
- Places where objects have been manipulated or displaced

Points of interest can allow us to observe:

- Footprints
  - These can indicate the number of individuals involved.
  - Prints found outside might indicate the suspect's point of entry and also help to retrieve any objects left behind.
  - Prints found inside will indicate the suspect's movements and might also help to corroborate certain facts and flag areas to process.

- Tool marks
  - These can help to reveal the type of tool used. A search for this tool can then be carried out following the suspect's arrest or during a search warrant.
- Fingermarks
  - These may or may not enable an individual to be identified, but they will indicate that the suspect was not wearing gloves at that particular point during the incident.
  - Any fingermarks observed will have a bearing on the work you do inside the scene.
- Other objects and substances
  - Bodily fluids such as blood and semen
  - Clothing and other fibers
  - Fallen and abandoned objects

As a general rule, points of interest are examined in accordance with the timeline of the incident or the suspect's movements at the crime scene.

**Example:** In cases of breaking and entering, the suspect's point of entry will often mark the starting point of the investigation. There is a strong probability that the suspect left footprints on the ground outside the scene, and there is a good chance that prints will also be found on the floor inside, since substances found on the outside will likely have been transferred on the soles of the suspect's shoes. The point of entry is also a place where fingermarks are likely to be discovered because the time of intrusion is when the suspect typically has the wettest hands. It is also at this stage that the suspect is most likely to get injured.

The order of priority determined for examining the various points of interest may vary, depending on the crime scene. In a case of breaking and entering, it is obvious that the point of intrusion is a very important point of interest, especially if the scene was well protected. In other circumstances, the key starting points for your investigation will be located in the immediate vicinity of the victim or the specific location where an assault took place. Therefore, you must adapt your approach to the situation and the potential of each point of interest.

**Example:** A man is found dead in the basement of a home. During your preliminary internal examination, you make the following observations: the front door shows no visible signs of breaking and entering; there is a lot of blood on the floor in the immediate vicinity of the body; bloody footprints lead away from the body and fade until they become completely invisible, suggesting that they were left by the suspect; the house was extensively searched, presumably by the suspect, since drawers were emptied in the bedrooms.

On the basis of observations like these, the crime scene specialist may call upon a forensic biologist to analyze blood spatter and examine the scene with luminol (Bluestar®). Before the biologist arrives, the crime scene specialist may record videos and take photographs of the scene, working outwards from the path of contamination.

The forensic biologist will typically:

- Examine the body and blood spatter in the immediate vicinity.
- Apply luminol (Bluestar®) to the floor by and around the body.

This case is a good example of how the use of luminol (Bluestar®) can reveal the entire sequence of the suspect's movements after a murder, including the fact that the contents of the drawers at this scene were emptied on the floor after the crime, since bloody footprints were detected underneath a pile of clothes. Footprints observed below the window led the crime scene specialist to examine this area more closely and discover bloodstains on the cords of the window blinds. Forensic evidence such as this provides a wealth of information that may uncover new points of interest and help to further the investigation.

Points of interest must be approached methodically in order to preserve any evidence they contain. It is important to remember that evidence may not always be visible, even if you conducted a thorough examination with adequate lighting.

Here are some examples:

- Blood on a dark carpet
- Footprints in dust on a grey carpet
- Footprints left by a shoe contaminated with blood

The order of priority for processing the various points of interest at a crime scene is established during the planning stage. It may also be considered at this stage whether to prioritize a brief examination of a particular point of interest in order to obtain information that may provide a better understanding of the situation or allow connections to be made between other evidence at the crime scene.

## **STAGES IN A CRIME SCENE EXAMINATION**

### **Set Up an Exterior Command Post**

Upon arrival at a crime scene, a command post should be established outside the outer perimeter. Ideally, this will be in an area of little traffic that provides a good overview of the scene.

### **Establish a Path of Contamination**

Often, the first responder will enter a crime scene to assist the victims or simply secure the premises. The movements of the first responder will contaminate the scene to some extent; these will typically form the basis for the path of contamination, a corridor that will be used for crime scene investigators to come and go, unless a better path is determined. In all likelihood, the first responder did not carefully examine the ground when moving around the scene. It is therefore your responsibility to properly process the scene. If there is no existing path of contamination, it is up to you to establish a path based on the information that you already know about the incident. In order to establish a path of contamination, you must conduct a proper analysis of that information and make informed assumptions. For example, if you know that a fight happened in the living room and in the kitchen, you must avoid walking in those places during your preliminary investigation.

### **Measures to Prevent Contamination**

- Surgical gloves must be worn from the start of the examination.
- Protective clothing is strongly recommended at scenes of major crimes and any crime scenes contaminated with bodily substances.

### **Required Equipment**

- Notebook and pens/pencils
- Flashlight

Any other unnecessary material, such as your briefcase, must stay at your workstation. Bringing unnecessary items with you will restrict your movements, hinder your note-taking and ultimately compromise the integrity of the scene.

### **Preliminary Investigations**

Normally, two preliminary investigations are carried out: an exterior examination and interior examination. The purpose of these examinations is to enable police officers to:

- Familiarize themselves with the premises.
- Find evidence and take the necessary precautions to protect it.
- Determine the points of entry and exit.
- Reorganize the crime scene protection, if required.
- Plan their work.
- Determine the resources needed.

### **Types of Preliminary Investigations**

There are three main contexts in which a preliminary investigation may be conducted:

- In the presence of the complainant or the victim

This situation is relatively frequent. You are called to a crime scene and meet the complainant, either the victim or a witness, on arrival. These individuals typically tend to be worried, stressed or over-excited and may be very keen to show you what has happened. You must therefore take time to:

- Restrict their movements at the scene and explain that all responders must do the same for the sake of the investigation.
- Listen to what they say to determine where they have been, what they have observed and what they have touched. This is an important step that will allow you to plan your movements and to eliminate certain evidence from the scene.
- Before you enter the premises with them, stress the importance of not touching any objects related to the incident, and pay careful attention to where you tread.

Visiting the premises will allow you to determine the places to examine and establish what is and is not normal, such as objects that may have been moved or handled by the suspect.

- In the company of the first police officer who arrived on the scene

Thanks to their training, police officers are aware of the significance of a crime scene and the importance of protecting it. The first officer on the scene is a crucial source of information. He or she will be able to point out the path of contamination, if any, indicate any objects that were moved in his or her presence and share any other observations. If the officer did not establish a path of contamination, it will be up to you to do so.

The preliminary investigation will be conducted in the presence of the first police officer, who will be able to provide you with all the information he or she has gathered.

As in the previous situation, visiting the scene with this officer will help you to plan the next steps.

- You are the first to arrive on the scene

In these circumstances, it will be your responsibility to find the best place to establish your path of contamination and determine the points of interest.

### Note-Taking

- Time of arrival on the scene
- Identification of individuals encountered
- Information obtained: path of contamination, first responder's observations, etc.
- Findings

### **Preliminary Exterior Investigation**

The exterior of the crime scene is generally the first to be examined since you have no control of any weather conditions that might alter the integrity of your scene or the evidence. This involves familiarizing yourself with the exterior surroundings of the scene. Start by walking around the perimeter and observing the scene from a distance. Even though you are likely far from your points of interest, it is important that you take your time and examine the path you are following.

**Example:** During your examination, you notice footprints in the snow leading toward a broken basement window. You presume that the suspect entered the home through this window. It would not be appropriate at this preliminary investigation stage to approach the window in order to examine it more closely. If you do so, you will contaminate the snow with your own footprints, and these will be visible on the exterior photographs you take prior to your thorough examination of the scene.

The preliminary examination is also an opportunity for an investigator to quickly determine places where potential witnesses could have observed or heard something.

### **Note-Taking**

- The time the preliminary exterior investigation started
- Very general observations
- Measures taken
- The time the preliminary exterior investigation ended

## ***Preliminary Interior Investigation***

The purposes of a preliminary interior investigation are the same as for the exterior examination, and the same rules apply.

### **Path of Contamination**

Direct light or ambient daylight should be used to process the surface that will serve as the path of contamination.

The path of contamination is intended to provide an overview of the scene and you should be mindful that all your movements contaminate the scene to some degree, even if you use the established path. Therefore, you should not see the path of contamination as a way to come and go everywhere around the scene and you should keep any movements to a minimum.

For instance, it would be inappropriate to enter a bedroom and go behind the bed to see if there is something there if there is no justification to do so. Instead, you should remain in the doorway and make any observations from there.

You may discover evidence when circulating along the path of contamination. If so, provided the evidence is not deteriorating, you may step around it or establish a new path. At this stage, it would be inappropriate to start a thorough examination of the evidence, unless it is necessary for the progress of the investigation.

If you are investigating the scene with a colleague, only one of you should circulate on the scene. The other officer should remain in a place where the ground has already been secured.

The same path should be used to exit the scene and return to the command post.

### **Interior Workstation**

An interior workstation should be set up at the crime scene in an area of low traffic that is not expected to be processed. In all cases, any points of entry or exit of the suspect must be avoided.

### **Note-Taking**

- The time the preliminary interior investigation started
- Very general observations
- Measures taken
- The time the preliminary interior investigation ended



## Planning Your Work

Once the preliminary investigations are completed, it is time to plan your work. Now that you have seen the extent of the crime scene, you should be in a position to plan the work and determine the resources needed.

It is important to plan your work with an open mind. Your preliminary investigations may have uncovered some relevant elements, but it would be a serious mistake to plan your work based on these aspects alone. On the contrary, the planning stage should be an opportunity to:

- Determine priority areas to process.
- Evaluate the examination potential and priority for evidence found.
- Determine which techniques to use.
- Make connections between your observations and the information in your file.
- Set out a timeline for the different stages of your investigation.

## Order of Priority for Collecting Evidence

1. Evidence that is in the process of destruction should be your top priority. This may include traditional items of evidence, footprints, surfaces on which fingermarks may be present and bodily substances that are exposed to sunlight.
2. Fibers and hairs should be collected as soon as they are spotted because they may be moved by the slightest draft.
3. Bodily substances may be at risk of contamination by exterior sources, which will complicate their analysis. You should therefore try to minimize any such risk by collecting as much original material as possible before using any other technique.
4. If it is necessary to examine the floor with luminol (or *Bluestar*®), this should be done early in the examination of a scene.
5. Evidence should generally be collected as you discover it. You should carry out a thorough visual inspection before handling and packaging the evidence carefully so as to preserve its potential for forensic examination.
6. Fingermarks should be developed with fingerprint powder last of all. Once powder is used, it will be impossible to use another technique to develop any traces. Fingerprint powder is also a significant source of contamination, as well as being very messy. This is why it should be used at the very end of processing, as soon as the scene has been thoroughly examined.

These priorities are merely suggestions and are not intended to infer that exhibits should be collected strictly by category. The main thing is to be mindful that some clues found at a crime scene may be more fragile than others.

### **Note-Taking**

- The time the work planning started
- Updates to your preliminary investigation notes
- Measures taken: requests for resources, other investigation procedures
- The time the work planning ended

### **Thorough Exterior Investigation**

The exterior of the scene should be processed first due to the risks inherent in the changing environment.

#### **Environment**

The surrounding environment is part of the crime scene, so it is important to pay attention to it. Among other things, a peripheral visual examination of the scene may allow you to:

- Determine a location where a potential witness may have seen something.
- Observe where a suspect may have parked a vehicle or left other traces that may indicate his or her movements.
- Pinpoint any surveillance cameras.

The area to consider may be extensive, so it is important to keep an open mind and use your imagination.

**Example:** Following an armed robbery in a bank, the investigator interviews a witness who claims to have seen an individual running in the street in front of the building. The potential for footprints on the asphalt road surface is poor, but the crime scene specialist must still conduct an examination. The specialist noticed that about 400 metres from the intersection, there was a large dirt parking lot. Upon thorough examination, footprints were found leading toward the back of the parking lot, which opened onto a nearby street. The examination revealed that the distance between the footprints was greater than would be expected for normal steps, so it was presumed that these footprints were left by the suspect running across the parking lot. On continuing the examination, the crime scene specialist also observed similar footprints consistent with a normal gait leading toward the bank. The specialist was able to photograph, measure and sketch some of these footprints and inform the investigator. Just a few hours after the crime was committed, the suspect was arrested at his home on the street right behind the parking lot, on the strength of a comparison of the footprints with his shoes, which connected him to the crime.

Nowadays, surveillance cameras are becoming increasingly commonplace.

**Example:** Following a robbery with aggravated assault in a bank, an investigator examined the area surrounding the building and found a parking lot several hundred meters away from the crime scene. The investigator went to see the owner of a nearby business, who explained during their interview that the parking lot was monitored by a surveillance camera. Watching

the video recording enabled the investigator to pinpoint the moment when the suspect got out of his car before committing the crime and driving away. The quality of the video recording was sufficient to enable the police to read the vehicle licence plate number and identify the suspect, who was arrested just a few hours later.

### Note-Taking

- The time the thorough exterior investigation was started
- Description of the weather conditions
- Description of the scene
- Description of the surrounding environment
- The time the thorough exterior investigation was completed

### Producing a Proportional Sketch

Producing a sketch is another opportunity for you to familiarize yourself with the scene. If you need to walk through the scene to create your sketch and your movements are likely to alter the scene, it would be preferable to do the sketch while you are conducting your thorough examination.

### Note-Taking

- Note the time the sketch was started
- Do an exterior proportional sketch: plan view including building and structures, nearby streets, parking lots, etc.
- Mark a direction arrow indicating North
- Indicate the path of contamination
- Note the location and description of exhibits
- Mark these on the sketch and in the legend
- Note the time the sketch was completed

### Photographs

Photographs are required to document the general condition of the scene upon arrival, hence the need for these to be taken at the beginning of your investigation. You will likely have to determine other paths of contamination before moving around the scene to take photographs from different angles.

You should start by taking general photos of the overall scene, then move on to photograph more explicit evidence and all other exhibits individually.

### **Note-Taking**

- The time you started and finished taking photographs (it is not necessary to note the time of each photograph)
- Type of photography (general views of the scene or specific photographs of evidence)
- The location on your sketch where the photographs were taken (optional)

### **Moving Around the Scene**

The first time you visited the scene, you followed a path of contamination. Now you will branch out from this path and expand your work area.

### **Processing the Ground**

Start by conducting a complete examination of the ground. This will allow you to collect evidence as well as facilitate movement around the scene later. This examination can be done according to the search by sector method.

### **Processing the Immediate Surroundings**

If you are able to establish the path used by the suspect to flee the scene, it is important to process places where he or she may have thrown or abandoned evidence.

**Example:** Following an attempted murder, the suspect's weapon was found in the ditch in front of the house where the crime was committed.

In another case, a knife used by the offender was recovered from a cedar hedge in the back yard.

### **Note-Taking**

- The time the examination was started
- Search pattern used
- Location and description of evidence
- Identification of places processed and results obtained, even if inconclusive
- Techniques used and results obtained, even if inconclusive
- Resources used
- The time the examination was completed

### **Thorough Interior Investigation**

Generally, the process used for an exterior examination will apply to your interior examination, other than a few exceptions. This might seem more complex because of the number of rooms to search and the number of objects present. It is easy to feel overwhelmed by the task, but focusing on planning can help, and you should feel free to adapt your plan to your needs.

## Workstation

Choose a location away from points of interest and usual traffic areas. Places to avoid include:

- The main entrance and surrounding area
- The suspect's point of exit
- The kitchen table

At this stage, it is too early to bring your equipment onto the scene because it will be in the way when you are taking photographs.

## Description of the Premises

One effective method for describing the premises is to do so room by room as you conduct your examination. The time you spend on observing aspects of the room and recording your observations in your notebook will help you to become familiar with the premises. Another advantage of working this way is that it enables you to group together all the information about a room. You will appreciate this when referring to your notes later.

You have to start somewhere, so it makes sense to begin by describing the room used to access the premises and represent what you can see from your workstation.

### Note-Taking

- The time you entered the scene
- Condition of the scene: temperature, ambient light, any particular odours, signs of violence, etc.
- Apparent clues

## Taking Photographs

Start by taking overall photographs of the scene. Since this will involve walking around the scene, you should think about establishing other paths of contamination. As you take photographs, you will become more familiar with the surroundings, which will make it easier to draw your sketch. Protecting the integrity of evidence must be your main objective and you must be mindful of this when moving around the scene to take your photographs. If you believe that taking photographs might alter the scene, it would be wise to wait until the thorough examination of the ground is complete.

Ideally, overall photographs of the scene should show general views that demonstrate the condition of the scene upon arrival. Other more specific photographs can then be taken as the search progresses.

### Note-Taking

- Time photography started and ended
- Brief description of what was photographed: overall and specific photographs of the scene and the evidence

## Producing a Proportional Sketch

### Note-Taking

- Note the time the sketch was started and completed
- Do an interior proportional sketch: plan view of all rooms
- Indicate the path of contamination
- Note the location and description of exhibits
- Mark these on the sketch and in the legend

## Searching Room by Room

Conduct a search room by room and consider the presence of points of interest and their potential for evidence when establishing the order of priority of rooms to search.

## Conducting a Ground Examination

First of all, you should start with a thorough search to recover clues found on the ground. This will enable you to move around the scene more freely while you consider the potential for forensic examination of other evidence you discover.

This examination can be done using direct light or ambient light. It is preferable to use the section by section search method.

## Searching for Other Evidence in the Room

Try to put yourself in the suspect's shoes as you determine which elements visible in the room to collect and which areas and objects to flag for forensic examination. The final aspect of the search should be an observation of the ceiling.

## Conducting a Thorough Search

Once the two previous steps are completed, you can proceed with a more thorough search, without the risk of destroying any evidence. Remember, the search must be conducted within the limits of the legal authorization justifying your presence on the premises.

Before conducting the search, ask yourself what you are observing. For example, are all your observations consistent and logical? Perhaps the crime scene is clean and tidy, whereas all the other rooms in the house are dirty and untidy. The opposite may also apply. Observations like these may lead you to conclude that the scene was cleaned after the crime or that someone deliberately made a mess to cover up the crime or steer the investigation in a different direction.

**Example:** The suspect could have tried to make it look like furniture and closets were searched and moved or toppled certain objects to suggest that it was a break-and-enter that turned into a homicide, whereas the murder was actually premeditated.

## Pursuing Further Examination

Now you can pursue your examination using the same methodology, perhaps by proceeding room by room or by gradually moving away from the point of interest in a structured manner, if you are in a large open space.

### **Note-Taking**

For each room and area:

- The time you started examining the room or search area
- Description of the surroundings: temperature, ambient light, etc.
- Information about photographs taken
- Techniques used
- List of places that have been searched or forensically examined
- Results obtained
- Evidence collected
- The time you finished examining the room or search area

### **Before Leaving the Scene**

#### **Compare the Work You Did with the Work You Planned**

It is very important to take the time to make sure your work was carried out as planned. If not, you should ask yourself the following questions:

- Did you achieve the results you expected?
- If the work was unfinished, why?
- Were any questions left unanswered?

#### **Read Your Personal Notes**

Reading your notes is an opportunity to review the work you have done so far and to update any points that need amending. If you worked with someone else, it is important to compare your notes, not to align your information but to get an overview of the work the other person has done. This will also help to ensure a more complete coverage of the scene.

#### **Do a Recap of the Scene**

Reviewing and comparing your notes with those of your colleague can help you draw clearer conclusions from your work and give you a certain sense of accomplishment. The situation will feel less stressful than when you arrived, and you will likely feel more in control. It is now time to do a quick recap of the scene by walking through it and looking around again to see if you have any final observations.

#### **Share Your Findings with the Investigator in Charge**

If your role in the investigation is to process the scene or you are responsible for its processing, it is important that you communicate with the investigator in charge of the case to share the findings of your work and keep abreast of the latest developments in the investigation, which will help to make sure that everything that had to be done was actually done.

## **Tidy the Scene**

Before leaving the scene, you must retrieve all your equipment and any waste. It would also be professional of you to give the complainant or victim, if they are on the premise, some advice about how to clean up any mess.

## **Walk through the Scene with the Victim or Someone Who Knows the Place**

This is an important step because someone familiar with the premises will be able to tell you what is out of place. Their observations could lead you to explore other aspects of the scene that may not have seemed relevant before now.

## **Take Time to Think**

Processing a scene is always a source of stress, even if you are used to this kind of work. At the start of every intervention, you are heading into the unknown. You have to familiarize yourself with the surroundings and the circumstances of the crime, and as you do your work on the scene, it will start to feel more familiar.

Before leaving the scene, it is very important to take a few minutes in silence to allow the work you have done to sink in. Walking through the scene one last time and replaying the sequence of your intervention in your mind will help you to leave the scene with a sense of duty accomplished.

### **Note-Taking**

- Any updates to existing notes
- Time of final check and any findings
- Time report was given to investigator in charge
- Instructions from investigator in charge
- Time of visit to the scene with victim or another person
- Results of visit
- Name of person who authorized the release of the scene
- Name of person now in charge of the scene

## **Release the Scene**

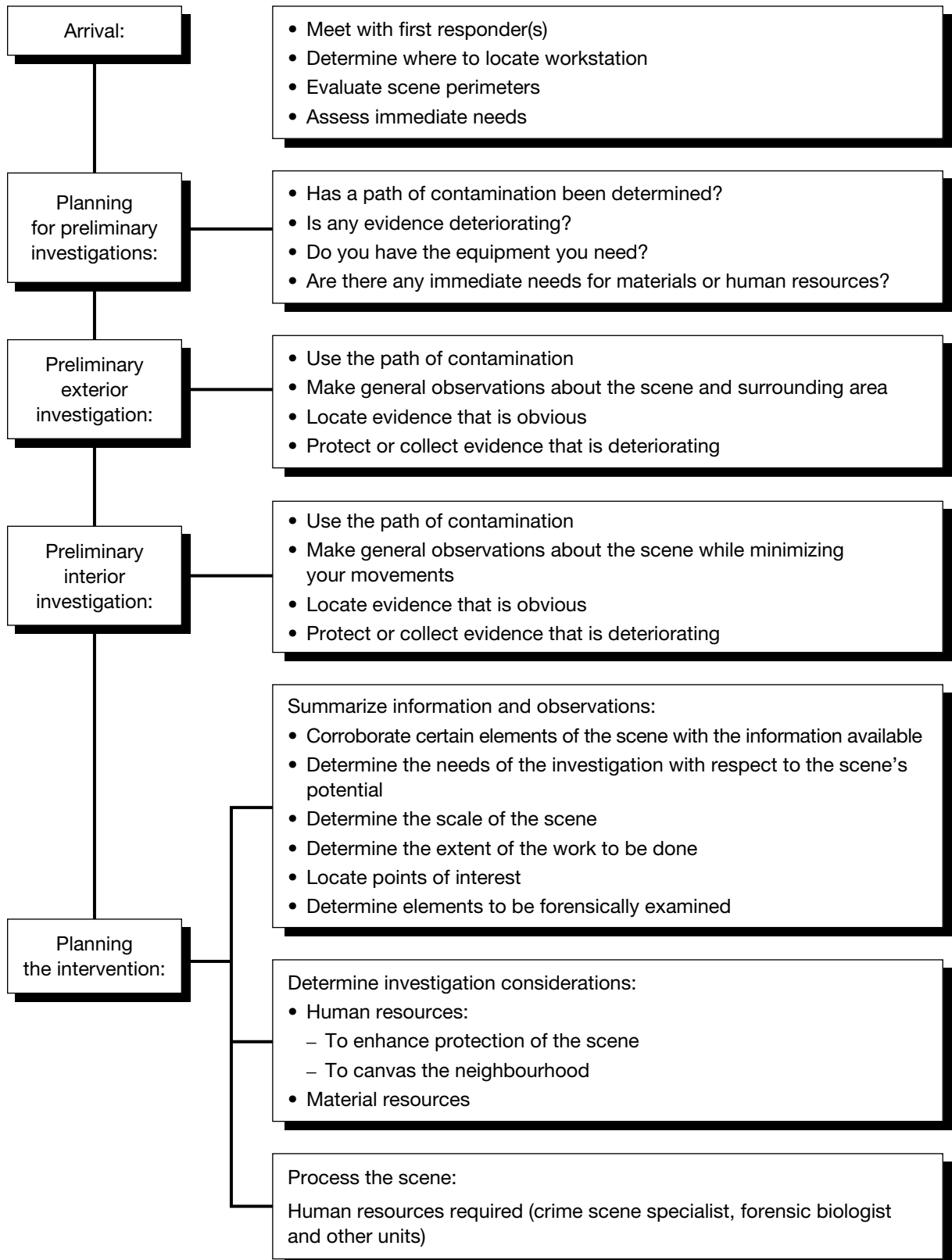
Your job is done. You have discussed with the investigator in charge of the case, and there are now two possibilities for you and your team:

- Turn over the site to a person who can legally take responsibility for it
- Maintain restricted access to the site by locking it up or ensuring a police presence until there are further developments in the investigation



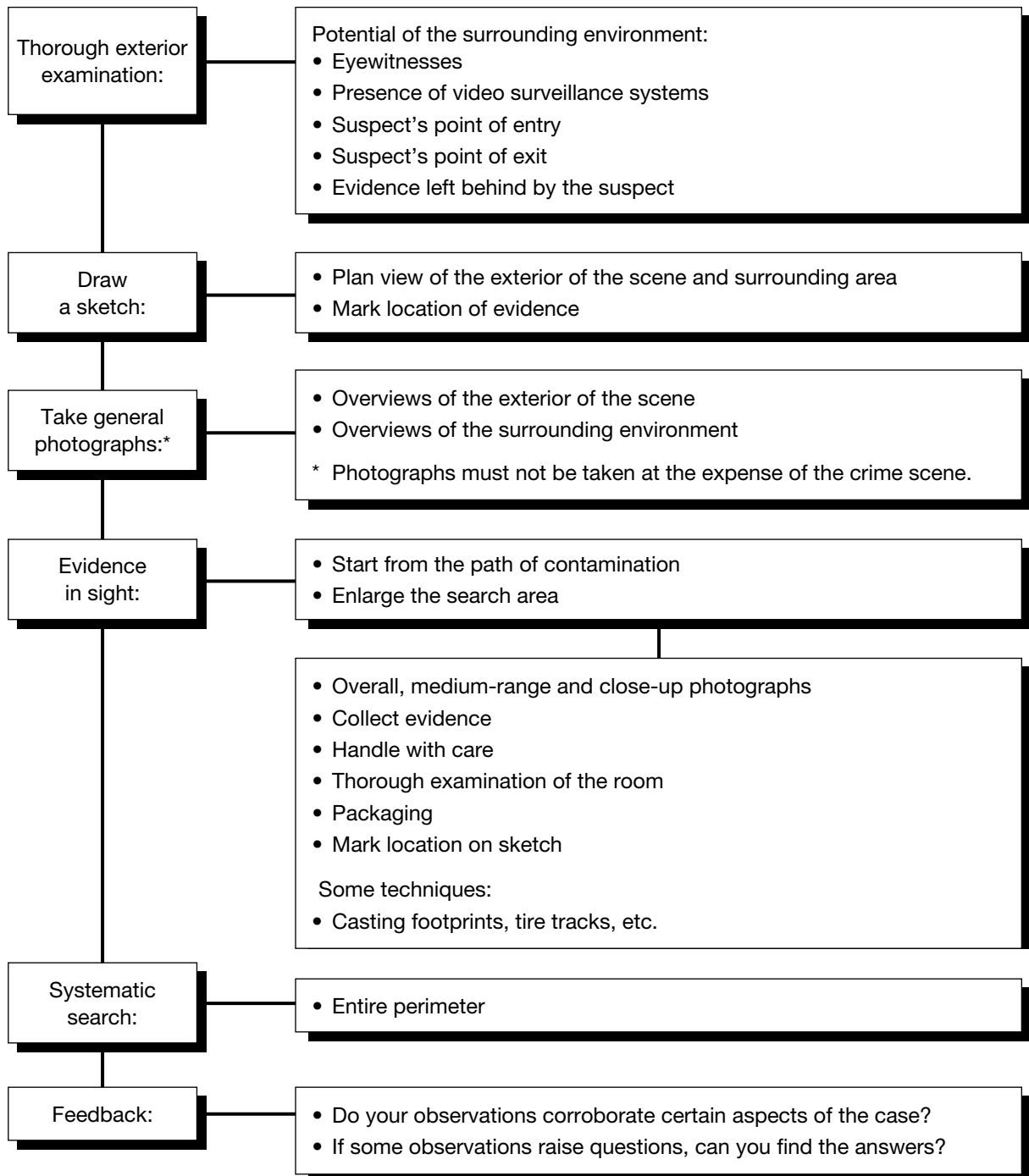
## Suggested method for processing a major crime scene

### Preliminary Investigations



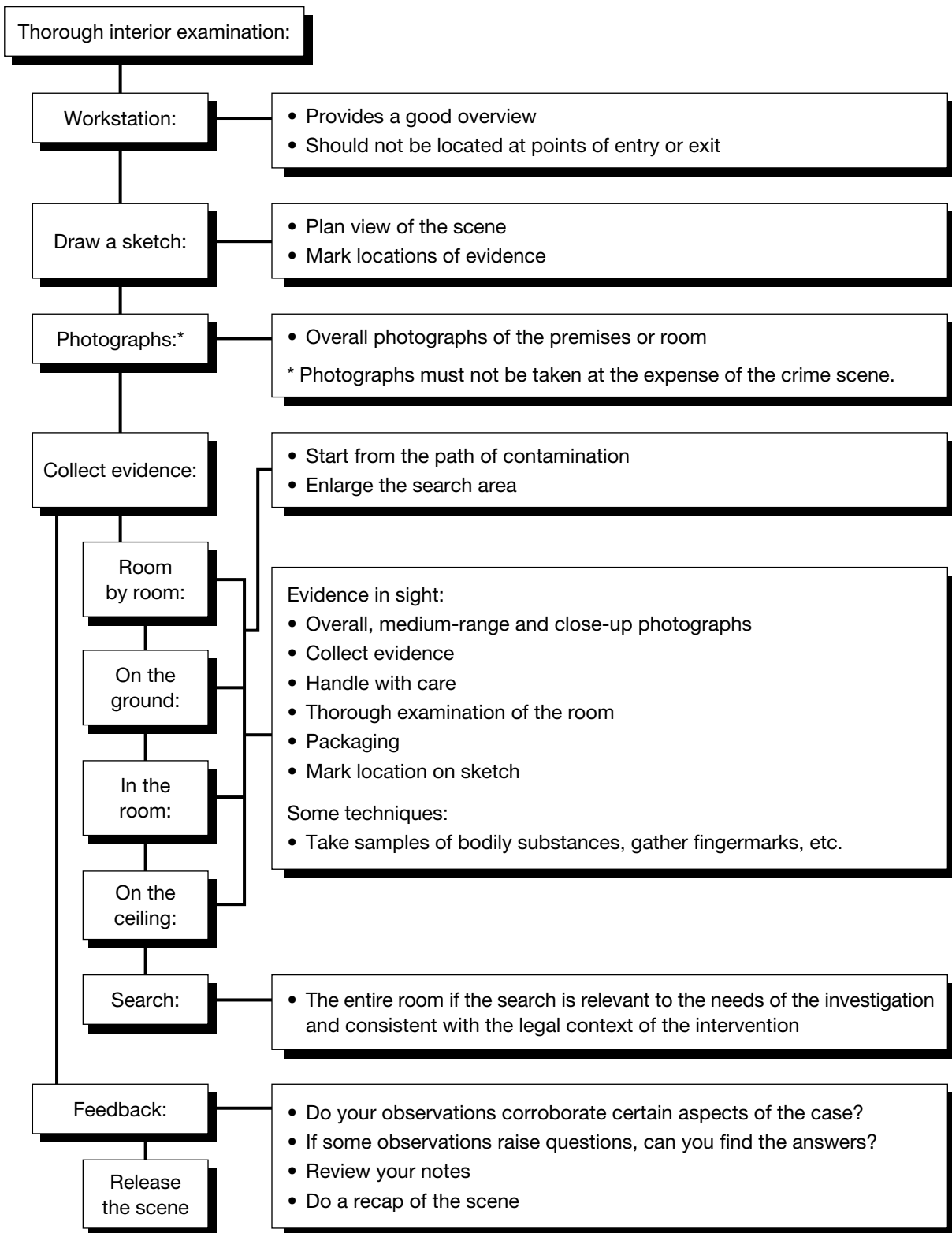
## Suggested method for processing a major crime scene

### Thorough Exterior Examination

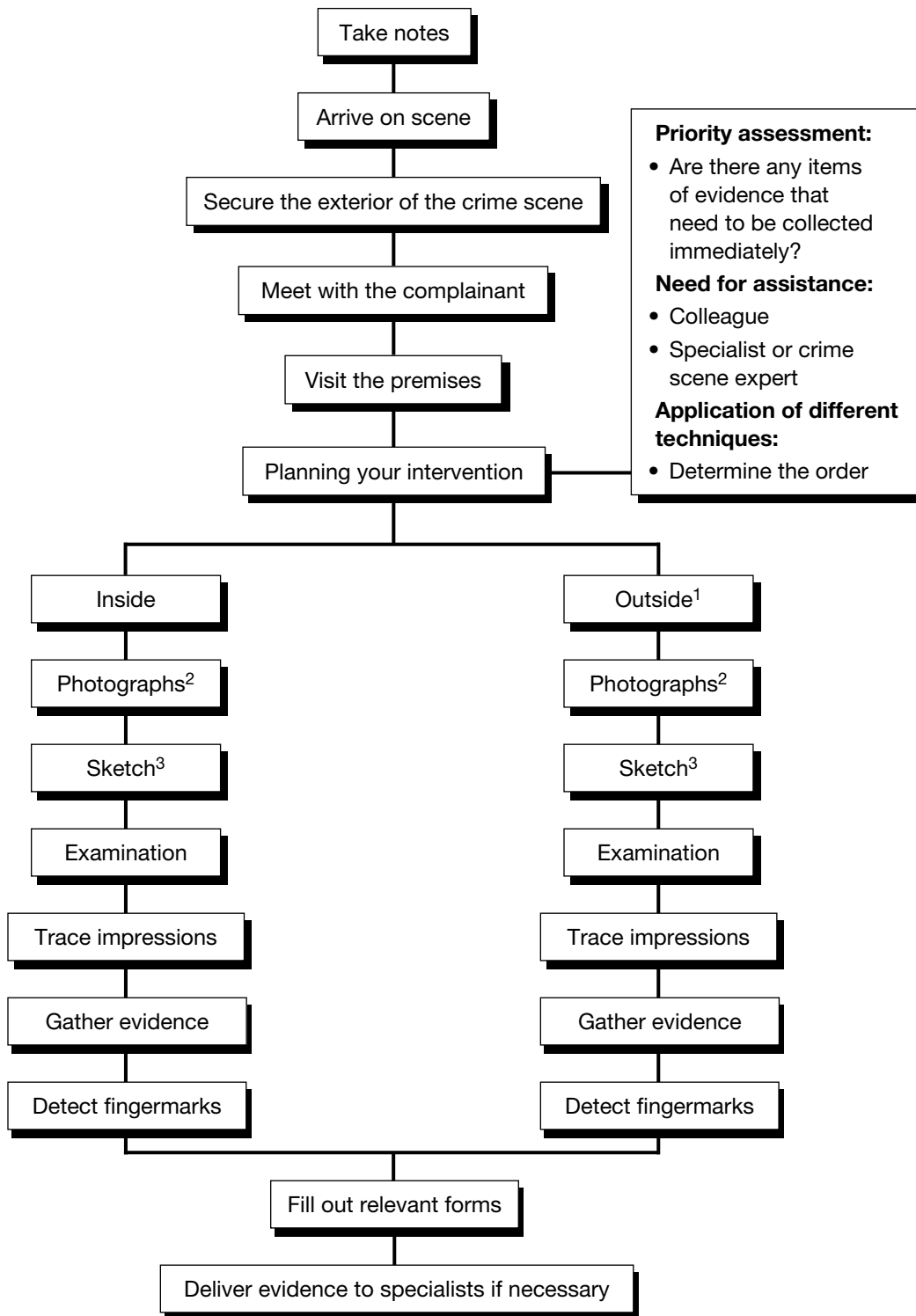


## Suggested method for processing a major crime scene

### Thorough Interior Examination



### Suggested method when intervening at the scene of a break-and-enter in a home



1. The exterior should be the first place to process since evidence located here is at the mercy of the weather and whims of Mother Nature.

2. Not all scenes necessarily require photographs to be taken, but if the police officer decides to do so, this must be done before handling anything on the scene.

3. Sketching is an effective way to mark the location of evidence on the scene.

## PREPARING FOR A SEARCH

The following steps may be involved in planning a search:

- Take legal concerns into account, i.e., whether a search warrant is required.
- Determine what you are looking for.
- Be somewhat familiar with the place where the work will be done.
- Clarify the search method.
- Determine the material needs:
  - Protective equipment: surgical gloves, etc.
  - Required forms:
    - Chain of custody of evidence
    - Identification tags
  - Paper bags, plastic bags and other containers
  - Sampling kit
  - Camera
  - Drawing materials
  - Means used to transport seized items
- Assess human resources needed:
  - Number of police officers
  - Roles assigned:
    - Conducting the search
    - Logging evidence
    - Securing the scene
  - Specialized unit
    - Crime scene specialist
    - Dog handler
    - Others

## SEARCH PATTERNS

### General Rules

Searches should ideally be carried out by two individuals to ensure that every place examined benefits from two different pairs of eyes. The amount of energy that goes into a search will always be proportional to the scale of the object of the search.

*Example:* A search for narcotics will typically take a more meticulous eye than a search for a piano.

### Photography

The use of photography is recommended to:

- Demonstrate the condition of the scene before starting the search.
- Record the location of any evidence gathered.

## Sketches

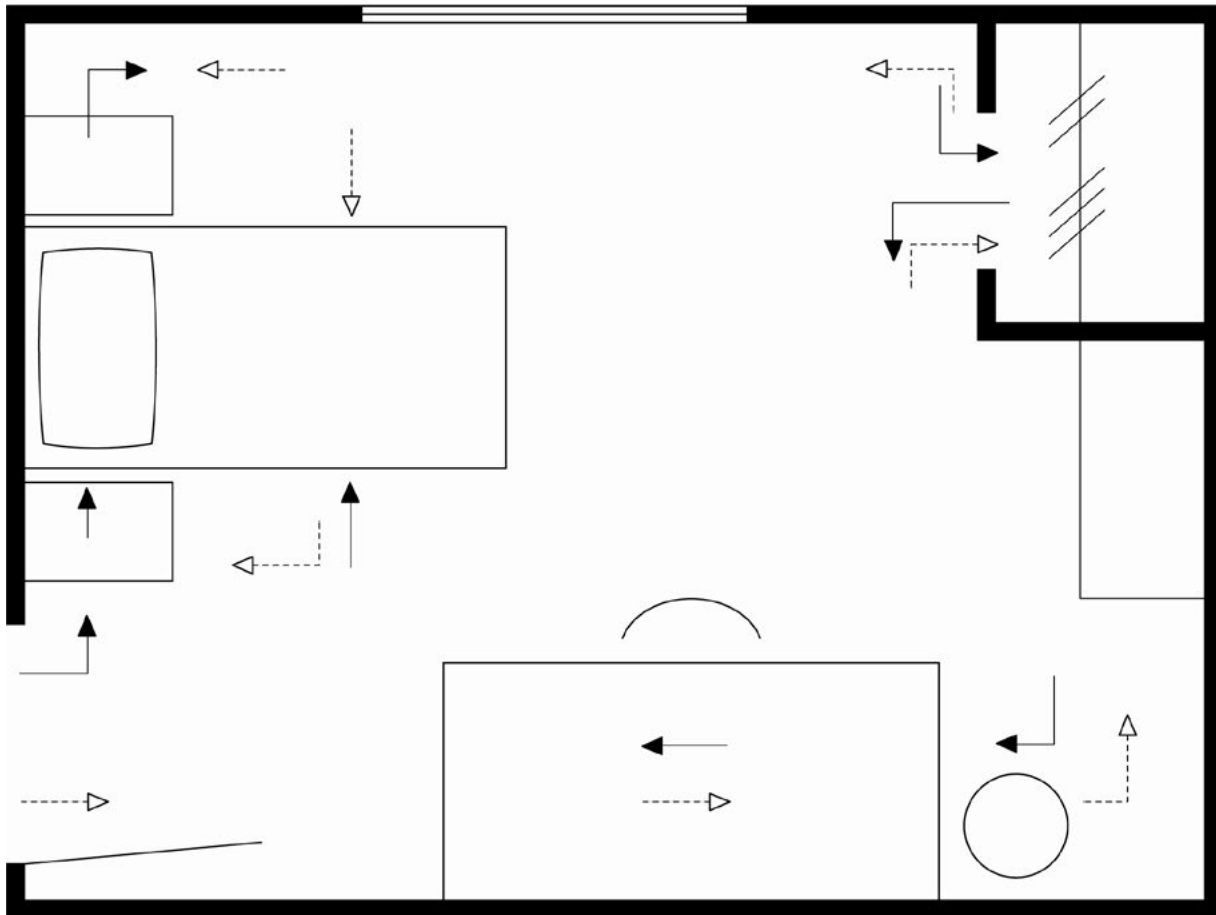
Sketches provide a graphic representation of the scene and can be used to mark an object's location.

## Searching a Home

The search should be carried out room by room, in accordance with a pre-established order to ensure that all rooms are processed. When the search of a room is completed, the door to that room should be closed.

### **Concentric Method**

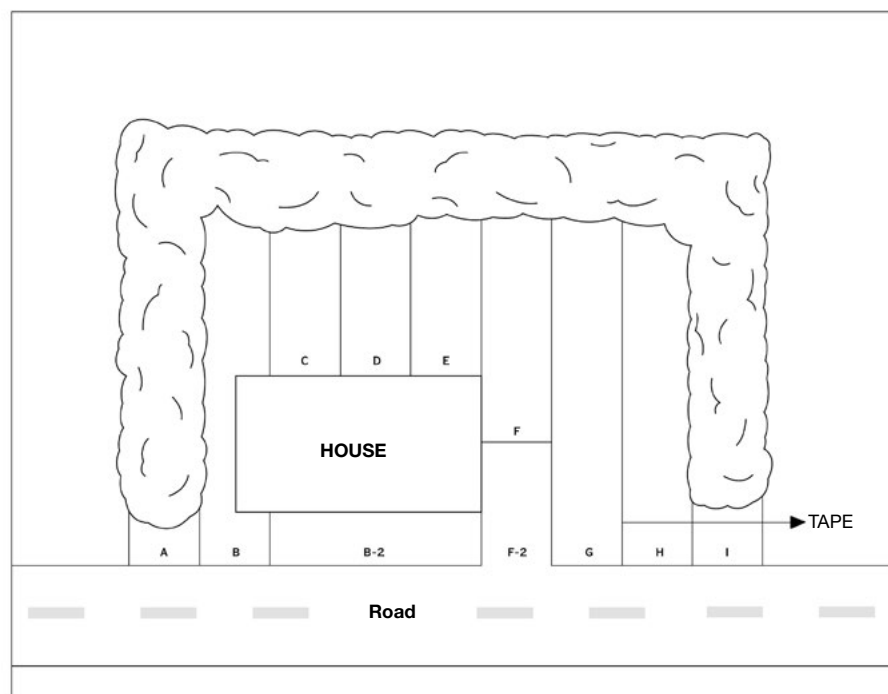
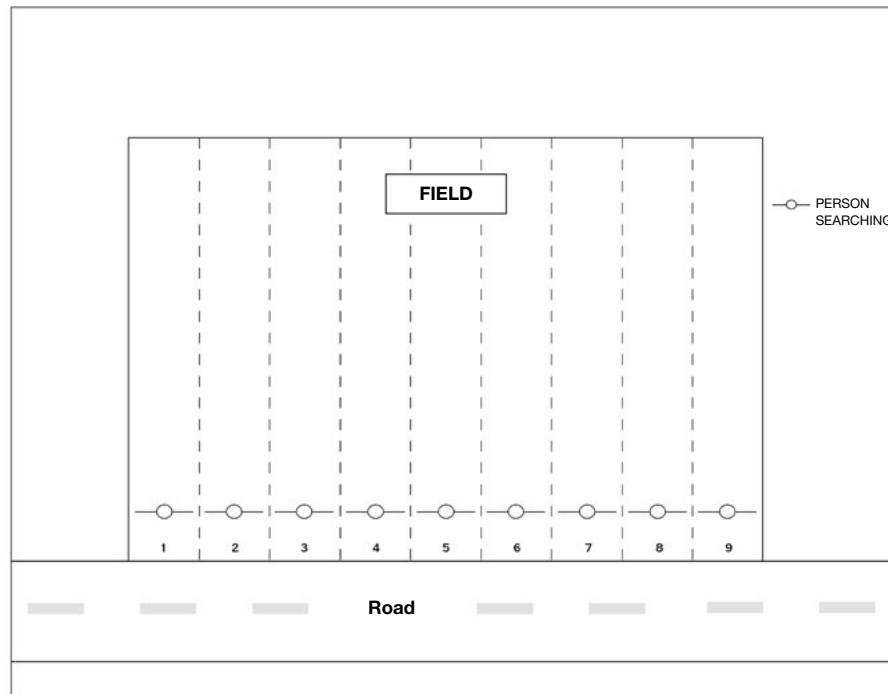
- Two individuals search each room
- One person searches the right side of the room, and the other searches the left side
- Carefully examine all furniture and closets found along the walls of the room
- Finish with what is in the centre of the room
- Make sure that every place is examined twice



## Searching a Large Area

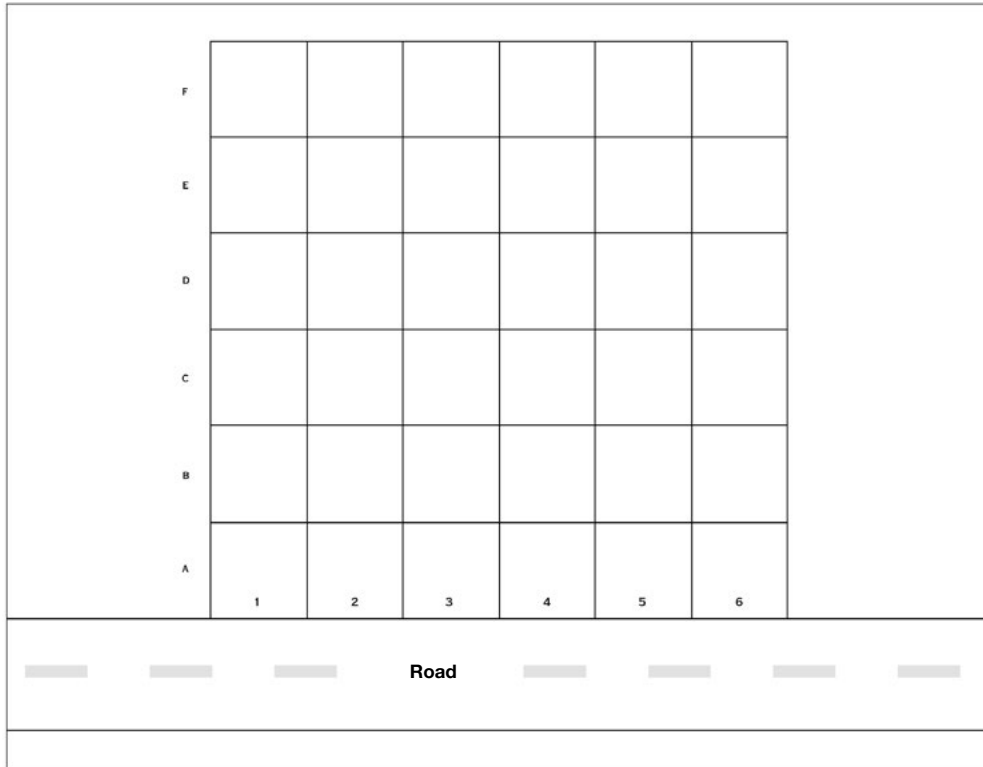
### Zone Pattern

This search method involves dividing the search area into zones. Each zone is identified by a letter or a number. These are physically separated by a length of tape marking the corridor or by a police officer who is part of the search line. The width of the zone will be established according to the object sought, and multiple resources may be involved in conducting the search.



## Grid Pattern

This method is used in situations where there is a lot of evidence to gather and its precise location must be recorded, such as a plane crash. Each square of the grid is identified by unique coordinates, and evidence found in a particular square will be marked as such.



### Note-Taking

- Legal considerations of the search
- Start time of the search
- Individuals present
- Search pattern used
- Places searched
- Results obtained
- End time of the search



**Suggested method for searching a vehicle:**

