

AC Trace Evidence: Collections from Crime Scenes

When you watch television shows like CSI, you're only seeing a small part of what crime scene investigators really do when a violent crime occurs. Their primary job consists largely of collecting trace evidence, which is then analyzed either at the police laboratory, or at the more sophisticated lab at the Medical Examiner's office.

Trace evidence is anything that the labs can analyze and that might give the investigators a clue as to who committed a crime and why. Following is an explanation of the different types of trace evidence, and how they are used by law enforcement professionals.

Trace Evidence: Hair

Hair is one of the most telling pieces of trace evidence that can be collected from a crime scene. Not only can hair provide DNA, but an excess of hair with the roots still attached might indicate a struggle. Hair without roots that does not match the victim's will tell the police what color hair the suspect has, and even the race of the suspect they are looking for.

Trace Evidence: Fibers

Fibers are important because they are easily transferred from a criminal to a victim by the slightest touch, and thousands of fibers can be transferred with prolonged contact. Fibers from clothing, carpet, furniture and other sources that are foreign to the crime scene may indicate that the initial attack happened somewhere else, or might point to where the suspect lives or works.

Trace Evidence: Glass & Paint

Pieces of glass and chips of paint can tell a story all by themselves. Shattered glass might indicate where a victim has been held, such as in a hostage situation, and paint chips might tell the investigators what kind of car the suspect drives, or any number of other facts that they would not have known otherwise.

Trace Evidence: Dust & Dirt

You might think that dust and dirt would be the last thing that crime scene technicians would want to save, but this is not so. Dirt tells because there are different chemical compositions of dirt in different areas of the same city, and can tell investigators where a victim or suspect has been. Similarly, certain kinds of dust - such as pollen - can only be found in certain areas.

Trace Evidence: Ballistics

Ballistics is the study of the marks and residue left by guns and bullets. A lot can be determined from the hole made by a bullet, or by the gunshot residue on a victim's skin. These telling points can help the crime scene investigators to reconstruct the crime.

Trace Evidence: Tool Marks

Tool marks can be left either on furniture and other inanimate objects or on the skin of a victim. When a criminal uses a tool - for example, to break into a home - the type of tool used leaves tell-tale marks in wood, metal, glass and other surfaces that can tell the investigators exactly what it was.