Blood pattern analysis

Law

The assessment of bloodstain pattern also limits the need to collect a lot of redundant blood samples for DNA testing, emphasizing the importance of blood patter observation. (Ramsland, n. d).

A shape of bloodstain can help predict the tool used. For example, it may be deduced that it was a blunt instrument used just by the shape and distribution of blood patterns. (Dave, 2014). Features of the pattern can hint to the kind of object that formed it and the least number of blows delivered by the object. For instance, the characteristic spurts present in an arterial spray spatter are created by the ongoing pumping of blood from an arterial injury. (Saferstein, 2011)

Surface texture can significantly affect the outline of the bloodstain. The texture of the surface is related to the disruption of a blood drop in contact with the surface. .(Saferstein 2011). Smooth surface for instance glass, will provide a stain with clean edges and shapes of proper geometric ratio. A rough surface, on the other hand, says concrete, will break the surface tension irregularly and hence produce a starburst. .(Saferstein, 2011)

Nevertheless, circular blood drops imply that the murder was moving way at a slow speed, but spiny edges imply the murderer might have taken off running. (Dave, 2014)

Various types of bloodstains show how the blood was projected from the body and information like the type of injury, the order in which the wounds were received, and how far the blood drops fell before hitting the surface where they were found could be obtained. (Ramsland, n. d)

The flow pattern of the bloodstains can also give information. For instance, if the pattern suggests the flow was interrupted, it may be helpful in assessing the sequence and time past between the flow and its interruption.

(Saferstein, 2011) Moreover, because the direction of flows is caused by gravity, the direction of a pattern may propose the original position of the surface when the flow was formed. This is important for investigations. (Saferstein, 2011) . The source of a bloodstain pattern may signify the position of the victim or suspect when the event that produced the stain occurred. .(Saferstein, 2011)

In examining the bloodstains, the size of the drops may give information as to the amount of force propelling the blood. A relatively large drop may indicate low-velocity impact blood spatter, while Medium-Velocity Impact Spatter may be indicated by stains having a range of 1 to 4 mm in diameter which may suggest beating or stubbing. .(Geberth, 2007) High-Velocity Impact Spatter may stain is predominantly less than 1 mm in diameter and this may give a clue that the blood was from gunshot injuries. (Geberth, 2007)

The particular appearance and location of every bloodstain at a crime scene is significant. Therefore, each bloodstain pattern at a crime scene must be accurately documented in notes, photographs, and sketches.

Clearly, observing these patterns is central to understanding what really happened at the crime scene.