

Forensic footwear evidence



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In the interest of thoroughness, footprints should be preserved even if they do not show any details. Although the size and shape of the shoe or pattern in the heel or sole is of lesser evidential value, a representative print should nonetheless be preserved for its value as an investigative lead. (Fisher, Barry A. J. , Techniques of Crime Scene Investigation, pgs 226-227). A footwear print may be a foot Impression or a footprint (dust print). Foot impressions occur when the foot treads In some moldable material such as earth, sand, clay, snow, etc.

Footprints are formed on a hard base when the foot or the sole and heel of a shoe are contaminated with some foreign matter such as road dirt, dust, flour, blood, or moisture. Footprints may also be latent when naked or stocking- covered feet on a smooth surface have formed them. Footwear impression evidence and information from the gait pattern may indicate that the subject was walking or running, had sustained an injury or walked with a limp, was possibly intoxicated, had a tendency to walk toe-in or toe-out, or was carrying a heavy object. (Fisher, Barry A. J. , Techniques of Crime Scene Investigation, pgs 226-227).

Foot Impressions are generally found outdoors; the first precautionary measure is hereof to protect the Impression from alteration or destruction, preferably by covering it with a box or cordoning off the area. Impressions in thawing snow are especially troublesome, so a box covered with snow to prevent thawing should protect them. If a foot impression is in such a position that it is possible for it to gradually fill up or be damaged by running water, it must be surrounded by a wall of earth, sand, or snow; alternatively,

a hole may be dug close to the impression and the water drained toward the hole.

However, these protective measures are only tops and the actual preservation should be undertaken as soon as possible. Preservation should be done by photographing and casting or, in the case of dust prints, should be lifted. (Fisher, Barry A. J. , Techniques of Crime Scene Investigation, pgs 231-232). When photographing the Impressions the camera should be placed vertically above the Impression on a tripod with a scale placed next to the impression. The film plane should be parallel to the Impression so as not to cause distortion In the photograph.

It is good practice to place two scales in the photograph at right angles ND a second perpendicular to the first, in the region adjacent to the heel. If the bottom of the impression is appreciably deeper than the surface of the ground or snow, the scale should be brought down to the same level. Before photographing, any material that may have fallen into the impression should be cleaned away immediately. If it is not possible to carry this out without damaging the impression, it should be omitted.

Because the details in foot impressions are three dimensional, the photograph should be made under illumination that will bring out those details o the best advantage. Direct sunlight enhances the details by creating highlights and shadows. When the sky is cloudy and the daylight diffuse and practically without shadow, artificial light must be used; foothold or flash illumination is suitable. (Fisher, Barry A. J. , Techniques of Crime Scene Investigation, pgs 232-233).

Dental stone is a type of gypsum or calcium sulfate that can be used to cast shoe impressions. At one time, plaster of Paris was more widely used for this purpose; however, dental stone is superior and readily available from dental supply companies. Dental stone can be used for casting most impressions; even snow. Foot impressions in loose, dry sand and earth can be taken without any special preparation. Some literature suggests removing loose twigs and leaves, but this practice can damage the impression and is highly discouraged. Fisher, Barry A. J. , *Techniques of Crime Scene Investigation*, (peg 233). In lifting firearms, great care must be taken not to destroy evidence. The best way to lift a pistol or revolver is to hold it with two fingers on the checkered part of the butt, or possibly by the ring on the butt. Shotguns may conveniently be held around the checkered part of the neck of the butt; if necessary the weapon can be lifted by a steady grip with the fingers on the trigger guard.

It is undesirable to lift a weapon such as a revolver or pistol, because the weapon may be cocked and a shot may be fired if the trigger happens to be touched. It should be taken as a general rule never to lift a weapon found at the scene of a crime before first making sure that no one is in the direction in which the muzzle is pointing; of course one should not risk being hit if the weapon fires while being lifted. The weapon may actually be cocked so that even the slightest movement could cause a shot to be fired.

The procedure for lifting up a gun by putting a pencil or stick in the barrel is absolutely wrong. This may destroy valuable clues in the barrel that might possibly have been of use in elucidating the case. In a contact shot (I. E. , when the muzzle is in contact with a body), which is common with suicide, it <https://assignbuster.com/forensic-footwear-evidence-research-paper-samples/>

often happens that blood, grease, fragments of fabric, and textile fibers are blown into the barrel of the gun by the violence of gas pressure and the splash of tissue and blood in all directions.