

Further Reading - Other Print Evidence



Palm Prints, Lip Prints, Teeth Marks, Voiceprints, Footprints, Tire Tracks & Tool Marks Palm prints, lip prints, teeth marks, and voiceprints have all been found to be unique to an individual. Palm prints were not accepted as evidence in Canada until 1956. In the 1980s, palm prints were taken of habitual thieves and classified according to the key search system.

The wide variety of possible ridge formations and the lack of a standard classification system, however, made it impractical to take the palm prints of every person brought into police custody.

Lip prints appear to come in a number of distinct patterns and can be used to identify a person, though instances of this occurrence are rare. The lips do not secrete sweat and oils like the fingers do. Lipstick-wearing thieves rarely stop to smoke a cigarette or drink a glass of water!

Teeth marks are another rarely used means of identification. There have been cases, however, where housebreakers have taken a bite out of something in the fridge. Accused murderers have been successfully prosecuted based on bite marks left on their victims.

Voice prints have only recently been studied as a means of identification. Special equipment is needed to record the voice pattern made by the sound waves created by speech. Recordings of obscene phone calls or ransom calls can be analyzed and matched to a recording of the suspect's voice. Voice line-ups have occasionally been used as a means of identifying a person who committed a crime while in disguise. Instead of being shown pictures of suspects, the witness listens to the voices of a number of suspects and tries to pick out the perpetrator.

Footprints left at the scene of a crime can tell the police many things about the perpetrator. Detectives will try to photograph a footprint, or in some cases, they will make a plaster cast of the print. If the print is clear enough, often the shoe make and manufacturer can be determined. The most common footwear worn by criminals these days is the running shoe. The RCMP keeps a record of the tread prints of all the different runners available in North America.

Detectives can also tell the difference between a work boot, rubber boot, army boot or snow boot. The size, shape and depth of the print can also provide clues. Detectives can determine the wearer's shoe size and, from that, estimate the culprit's age, height, and weight. From the shape and depth of the print they can determine if the culprit was running or carrying something heavy. Usually, footprints only provide detectives with a clue or a 'lead'. Unless the print is exceptionally clear, detectives will be unable to match any accidental characteristics to prove that the suspect's shoes are those which made the prints at the scene.

Detectives examine tire tracks in a manner similar to footprint evidence. For many years after cars were first introduced in Calgary, car manufacturers experimented with the wheel base and wheel treads of their different models. Wheelbase is the distance between the front and rear axles. Wheel tread is the distance between the centre of the left tire and the centre of the right tire. Wheel tread is the easier of the two measurements for a detective to estimate.

Charts of the various combinations of wheelbase and wheel tread were once available to detectives and could be used to determine the make, model and year of a suspect vehicle. Today, wheelbase and wheel treads only occasionally provide detectives with a lead because the measurements vary less widely.

Tire tread patterns also used to provide detectives with a good lead. At one time there were only six tire manufacturers in Canada. Different tires had different tire tread patterns. It was not unusual for a car to have four different tires on it. In 1950, the Calgary Police Service solved a shop breaking by proving that it was highly unlikely that two vehicles would have the same wheel tread, as well as the same four different tires in the same position on the car. Today, there are too many manufacturers and too many different tires. Many tires have the same tread pattern and people usually buy all four tires at the same time. Still, tread patterns may be used to eliminate a suspect vehicle.

Casts were also occasionally made of tool marks left at the scene of a break and enter or safe breaking. Marks left by a metal chisel or a pair of wire cutters can be matched because each tool makes its own unique marks.