

36 Hidden clues

Marks, tears and breaks

When a crime takes place, damage often results. During a break-in, for example, a window might be smashed or a door forced off its hinges. Officers closely examine such details to build up a clearer picture of the crime. They might also reassemble damaged objects in a process called physical matching.

◀ A forced entry leaves behind crucial evidence such as broken glass. Detectives can quickly establish if the glass was smashed from the inside or the outside.

Torn paper

Physical matching was used as early as 1784, in the UK, when John Toms was convicted of shooting and killing Edward Culshaw. A piece of torn newspaper was discovered inside the barrel of the murder weapon. The paper, which was used to hold gunpowder, matched perfectly the torn newspaper found in Toms' pocket.

▶ Physical matching can be used to put two or more pieces of a broken or torn item together. The item could be a piece of clothing, a letter, a smashed vase or, here, a torn cheque.

torn cheque being pieced together: Pete to shoot



Leaving your mark

After a burglary or break-in, officers check all the openings to a building for signs of forced entry. A drilled-out lock, a smashed window pane or marks around a window frame, where a tool such as a screwdriver or crowbar has been used, are classic signs. When marks are left behind, further examination can sometimes reveal the tool or object that made the mark.

Paint

If paint samples are left at a crime scene by a car that has hit an object or a person, investigators might be able to trace the make and model of the vehicle involved. The Paint Database Query, used by police forces across the world, has information on over 50,000 layers of paints and 13,000 vehicles.

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▲ An armed raid has left this distinctive pattern of bullet holes and shattered glass. Detectives take samples of the glass in case it matches fragments found on a suspect's clothes or in a getaway vehicle that has been recovered.

◀ A forensic scientist uses a microscope to compare paint chips from a car involved in an accident with known samples of paint. Finding a match can make identifying the car easier.

On the case

A burglar and violent attacker became known as 'The Fox' for his ability to outwit police in the south of England in the mid-1980s. Visiting the scene of yet another brutal assault, in the village of Brampton, police discovered paint flakes, left by a car as it scraped past a tree. The paint was analyzed and found to be the colour 'harvest gold', used only on one type of car – Austin Allegros made between 1973 and 1975. This helped narrow the search. When police visited Malcolm Fairley's house in North London they found him outside washing his car, a 'harvest gold' Allegro, complete with paint damage matching the paint found at the scene. Fairley confessed and was given life imprisonment.

harvest gold allegro: this was emailed to you