**The Case of the Car Carpet**

A few years ago, a young woman was murdered in Sydney. Her body was found among trees, down an embankment, just a few meters from the edge of a road. As the investigation proceeded, the police considered various possible suspects, including her ex-boyfriend. He maintained that since the break-up of the pair a few months ago he had not seen his former girlfriend. Why, then, had he recently called her, and arranged to meet her on the very day that she died? That, he said, was just to give back their affectionate letters and gifts, as the final act in the whole business. He claimed that, in fact, he had not met her on that day.

Alert CSIs at the crime scene carefully isolated the dead woman's walking boots. About fifty black fibers found on their soles were photographed in position, carefully preserved, and taken to the lab for analysis, along with hundreds of other pieces of evidence. It turned out that these fibers came from the carpet of a car.

The ex-boyfriend's car was searched for evidence, and fiber samples were taken from its carpet. Fiber specialists studied the color composition, size and microscopic features left by the manufacturing process on fibers from the crime scene and the ex-boyfriend's car. They were strikingly similar - so much so, that it was possible to see that they came from the same sort of carpet. However, by itself this proved very little. All cars of a particular make are likely to have the same sort of carpet. But, by a stroke of luck, the ex-boyfriend's car was a very unusual type of imported Honda. Police checks with the company showed that only 200 had been brought into Australia; all of these would have had identical carpet. The carpet was not put into any other models.

Police tracked down nearly every one of those cars, and checked alibis. There were no other cars of this type in the area at the time of the murder. But the case was still far from closed. Even if the Fibers on the victim's shoes had come from her ex-boyfriend's car, could this have happened innocently many months ago? Forensic scientists carried out a detailed research project on the transfer of carpet fibers to shoes, and the length of time they could remain on the soles. The results showed that, although there is some variation with differing shoe soles and fiber types, car carpet fibers generally don't stay on shoes for very long - only a matter of minutes in normal conditions.

This information, and the confirmation that the fibers matched the rare car carpet of the suspect's car, helped to clinch the prosecution case and bring about the finding that the accused ex-boyfriend was indeed guilty of murder.

<http://www.abc.net.au/science/forensic/bigcases/case_sample_04.htm>

**The South Bay Mystery Murder**

SAN JOSE, Calif. -- One of the South Bay's longest running murder mysteries is solved. Santa Clara County's district attorney says he believes the evidence has revealed who killed Jeanine Sanchez Harms more than a decade ago.

Harms disappeared on July 27, 2001. The district attorney says he's convinced Maurice Nasmeh killed Harms after having a beer together at her Los Gatos home.

"Maurice Nasmeh murdered Ms. Sanchez Harms, concealed her body in her Persian rug, and used his Jeep Cherokee to dispose of her body," said district attorney Jeff Rosen.

Rosen points to what he calls indisputable scientific analysis of 27 rug fibers found in the Jeep Cherokee that came from two rugs belonging to the murder victim. The exhaustive forensic testing by micro-trace in Illinois took three years to complete.

"I just wish we could have gotten these results six months or a year sooner, but the science only works as fast as the science does and it doesn't work on a CSI schedule," said Rosen.

One of the many sad twists in this case is that authorities arrested Nasmeh in late 2004 but were forced to release him in 2007 when questions were raised about the original evidence testing of those rug fibers.

Even with the meticulous re-testing, Nasmeh will never face a jury. In January, Harms' brother Wayne followed Nasmeh into a Peet's coffee shop in west San Jose, killed him and then killed himself.

Police are hoping someone comes forward with information that reveals where Harms' body can be found.

"The family is suffering and continues to suffer and will always suffer without an answer," said Chief Scott Seaman of the Los Gatos/Monte Sereno Police Department.

The district attorney vowed his office would work on the case until it was solved, and now the evidence finally supports what the family always believed.

"Justice didn't happen quickly enough in this case. Despite all of our best efforts, justice didn't come quickly enough, and for that I am deeply sorry to the Sanchez Harms family."

**You Can Wash, But You Can’t Hide**

Bernard Josephs returns to his house in Bromley, England, and finds his wife Claire lying under the bed, her throat slashed and severed to the spine. Defensive wounds to her hands appeared to be caused by a serrated knife. No weapon was found at the Josephs’ house, and police had no other clues to go on. However, the murder was solved, and the killer convicted within four months, through solid forensic investigation.

Authorities first pinned down the time and circumstances of the crime. Ingredients of a meal that Claire had been preparing were still in a bowl in the kitchen. There was no sign of forced entry into the house and a half-empty cup of coffee was left out on the table. Investigators were fairly certain that a friend or acquaintance had dropped by while Claire was making dinner and so they began to concentrate on family and friends.

One of the people the police questioned was Roger Payne, a recent acquaintance of Bernard and Claire, who had earlier convictions for attacks on women. Police discovered several scratches on his hands, which Payne ascribed to a fight with his wife but his alibi for February 7 was far from airtight.

Forensic evidence focused on Payne’s clothing. Claire Josephs had been wearing a cerise woolen dress at the time of her murder. Although Payne’s clothing had been laundered, the seams and hems still contained over 60 cerise wool fibers matching Josephs’ dress. Investigators then examined Payne’s car and found traces of blood matching Josephs’ blood type, as well as additional clothing fibers.

Payne was convicted and sentenced to life imprisonment in May 1968. While DNA evidence has captured the public’s imagination in recent years, and is a powerful crime-solving tool, basic fiber and blood tests remain the backbone of forensic investigation. They are reliable, relatively inexpensive, and easy for lay people to understand.

<http://www.history.com/this-day-in-history/forensic-evidence-solves-a-crime>