

# PORTRAIT OF A PERFECT MURDER

By Nicola Cook  
BBC Horizon

**Most murderers are unaware of even the simplest clues that might give them away. But by thinking like a forensic scientist, is the "perfect" murder possible?**

- 1 The so-called perfect murder - an undetectable crime where the killer gets away scot free - has long been the stuff of mystery fiction.
- 2 From the icicle to the leg of lamb, authors have strived to come up with more imaginative weapons and crimes than their predecessors. But would any of these ingenious methods work?

Name a clever method of murder that you have read about, seen on the news, or watched in a movie or TV show.

- 3 Staging a death to look like an accident is one of the first things an aspiring murderer might try. But when a pathologist examines the body of the victim they're not just looking for the cause of death.
- 4 Other minor injuries - like bruising from a struggle, or scratch marks where a body has been dragged - can reveal a murder.
- 5 Another important clue is hypostasis. When someone dies their blood pressure falls, and gravity makes the blood pool in those regions of the body closest to the ground. This red staining is clearly visible, and can reveal the position of the body at death.
- 6 If a body is found lying on its right-hand side, but the red staining due to hypostasis is down the left-hand side, then the body has clearly been moved.
- 7 "It gives us a very important clue," says pathologist Dr. Richard Shepherd. "If you're dumping a body, of course you don't think where's the hypostasis, you just dump the body and run."
- 8 The body can reveal a lot of secrets, so a number of killers have tried to get rid of their victim's body altogether.

Ask a question.

## Mass Graves

- 9 In the 1940s the "acid bath murderer" John Haigh attempted to dissolve the bodies of six victims in sulphuric acid. This destroys bones and tissue but it can't digest fats - or plastic.
- 10 This is how John Haigh was caught. A pair of dentures, a red plastic handbag, and three human gallstones - covered in a layer of fat - were retrieved from the acid sludge found at his workshop.
- 11 Another method of body disposal comes from forensic scientists themselves.
- 12 DNA expert Eleanor Graham at the University of Leicester says: "It was developed for situations like the mass graves in Bosnia Herzegovina, where you find mostly skeletonized remains, but a bit of soft tissue adhering.
- 13 "You need to clean these bones up and to preserve the DNA for identification purposes. The old systems included boiling at high temperatures which was extremely destructive to the DNA."
- 14 What these scientists now do is simply heat the remains gently with biological washing powder. The biological enzymes eat away at the flesh, leaving just the bones behind.
- 15 This would certainly make a murder more difficult to investigate but not impossible.

Think back to Jack Maloney's murder.  
What clues might Mary have left behind  
to connect her to the crime?

- 16 Gunshot and knife wounds may still be visible on the bones, and any blow with a blunt instrument is likely to have shattered or cracked them.
- 17 But there is a weapon that wouldn't leave visible evidence behind. It's the one professional assassins favor - poison.
- 18 The victim may not even realize what's happened until the murderer is many miles away.
- 19 The most recent example is Alexander Litvinenko's poisoning with polonium late last year. It took the investigators weeks to identify the poison, because polonium-210 had never been used in this way before.
- 20 But what Litvinenko's poisoner may not have realized is that this ingenious poison might also give them away.

Predict how a murderer could be  
given away by poison.

## Tiny Fibers

- 21 The alpha radiation given out by polonium-210 can be detected in incredibly small quantities. As the poisoner escaped they were leaving behind a radioactive trail that may yet lead to their capture.
- 22 This type of trace evidence is the final piece of the perfect murder puzzle. Modern crime scene investigators can spot much more than just fingerprints.
- 23 The CSI team can pick up tiny fibers of clothing, shoeprints from a carpet, and of course DNA.

## Define Trace Evidence.

- 24 "Some people are more likely to deposit their DNA than other people. One person could pick up a bottle of water, put it down, you get a full profile.
- 25 "Another one could drink from it and you wouldn't pick up very much. No one knows exactly why this is but there does seem to be a very big difference."
- 26 So if someone sheds less DNA, that would reduce the risk of leaving tell-tale evidence.
- 27 But that's also why the real-life "perfect" murder is likely to fail. It relies too heavily on chance. Every single element must come together perfectly.
- 28 The forensic scientists need just one mistake and the criminal could be caught.
- 29 If someone wants to get away with murder their best hope is to be very, very lucky.

Summarize what makes the perfect murder highly unlikely.