Further Reading - Hair and Fibre Evidence

Extensive research has been done on hair comparison. Charts are available that show the difference between human vs. animal hair, male vs. female hair and head vs. other body hair. Scientists can tell whether the hair was pulled or fell out depending on the condition of the root. Freshly cut hair has a blunt edge and the diameter of the hair shaft changes with age. Certain hair conditions or extremely dirty hair can sometimes provide detectives with a good lead.

Rare or expensive fibres are less common than denim or wool and the difference can be seen clearly under a microscope. The rarer a fibre is, the better the evidence it provides. Synthetic fibres were common after 1940 and blends were soon introduced. Microscopic comparison of hair and fibres could only determine whether the hair or fibre was similar or dissimilar and generally only provided detectives with a clue. A rare blend of fibres and colours could provide more convincing evidence if found both at the crime scene and on the suspect. More complex methods of analysis have since been developed. These methods may involve burning the fibres and analyzing the chemicals produced. Often this still does not provide the detectives with conclusive evidence. A piece of cloth torn from the clothes of the perpetrator is valuable evidence if it can be matched with the suspect's clothing.

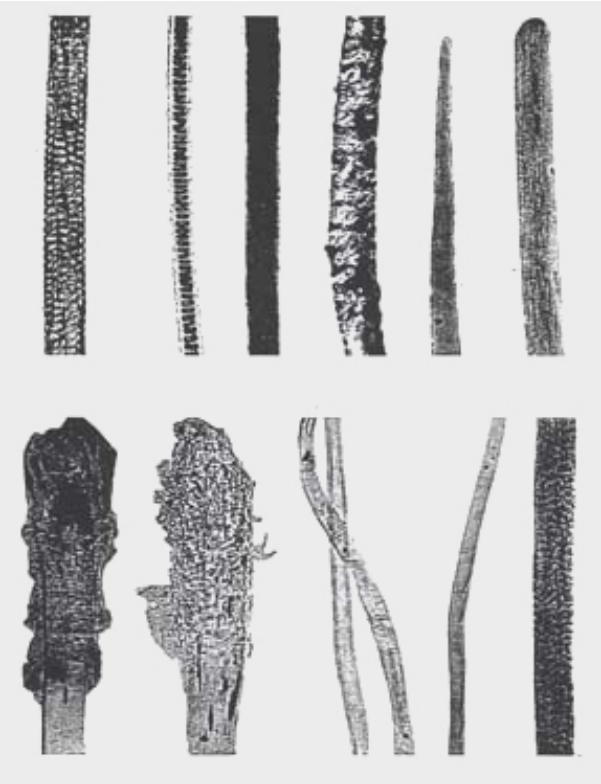
Hairs and fibres by photomicrography (x200). (L-R)

TOP ROW

1. Hair of Rabbit
2. Hair of Cat
3. Hair of Dog
4. Wool of Sheep
5. Human Eyebrow Tip
6. Human Body Hair Tip

BOTTOM ROW

1. Human Hair Pulled Out
2. Human Hair Fallen Out (dead)
3. Cotton (American Warp)
4. Silk
5. Cellulose Acetate Impression of Cuticular Scale Pattern of Human Hair



Photographs by Superintendent T.A. Roberts, Surrey Constabulary