

Extract: 'Digital Decision Making: Back to the Future' - A new book by Ray Corrigan

http://www.amazon.co.uk/Digital-Decision-Making-Back-Future/dp/1846286727/ref=sr_1_10/202-0110058-9327846?ie=UTF8&s=books&qid=1188289688&sr=8-10

<http://www.springer.com/uk/home/generic/search/results?SGWID=3-40109-22-173701745-0>

Chapter 9:

Shirley McKie and the fingerprints experts

In January 1997, Shirley McKie was one of a team of police officers investigating the brutal murder of Marion Ross in her home in Kilmarnock in Scotland. David Asbury was soon arrested as a suspect in the murder based on fingerprint evidence found at the scene.

Fingerprints were first seriously considered as a means of personal identification by Dr Henry Faulds, a surgeon superintendent working at the time in a Tokyo hospital.¹⁷ He had a letter published in *Nature* on the 28th of October 1880 outlining his ideas.¹⁸ By the turn of the century police forces had begun to use the technique in their investigations and over a hundred years later fingerprints are widely accepted as an infallible means of personal identification. The fingerprint identification process can go wrong though and it did in the Ross murder case.

In addition to the fingerprints at the scene implicating David Asbury in the murder, another print was found there, which four fingerprint experts at the Scottish Criminal Records Office identified as belonging to officer McKie. Since McKie had never been in the house she suggested there must have been a mistake. Since a large part of the case against the murder suspect, Asbury, amounted to the fingerprint evidence, senior officers believed that it must have been McKie who had made the mistake and forgotten about entering the house. After all, not just one but *four* experts had confirmed the identification of the print. Whereas it might have been possible for one examination to be in error, it was highly unlikely that four experts using this long-established scientifically reliable identification technique could be wrong. Or was it?

Officer McKie then came under pressure to change her story since all the fingerprint evidence would come into question if the experts were seen to have made a mistake with the print identified as hers. McKie refused to yield to the pressure as she knew she had never entered the house and that the print could not have been hers. What she did not know at this stage was that four other fingerprint experts at the Scottish Criminal Records Office had also examined the disputed fingerprint and had *refused to confirm* it belonged to her.

During the murder trial of David Asbury, McKie denied under oath on the witness stand that the fingerprint belonged to her. Asbury was convicted of murder and McKie was subsequently prosecuted for perjury. In her defence she employed two overseas fingerprint experts who confirmed the disputed print could not belong to McKie and explained in some detail why this was the case. Their clear explanation, accessible to ordinary people, has since been shown in several BBC TV programmes on the case. In May 1999, McKie was unanimously acquitted of perjury and the judge, unusually, commended her for

“...the obvious courage and dignity which you have shown throughout this nightmare... I very much hope you can put it behind you. I wish you all the best.”

Three years later David Asbury's murder conviction was quashed by the Appeal Court, which agreed that the fingerprint evidence against him was unreliable.

In 2000, after a lot of campaigning and a couple of BBC programmes, an investigation by Her Majesty's Inspectorate of Constabulary concluded that the fingerprint mark could not have been made by McKie.¹⁹ Hundreds of fingerprint experts from all over the world have now examined the evidence and come to the same conclusion. There have been numerous investigations and reports, TV programmes and in 2006 a parliamentary inquiry in the Scottish parliament.

I am not going to speculate on any of the motivations of any of the actors involved. What is clear is that the process surrounding the fingerprint science in the Scottish Criminal Records Office went seriously wrong in the McKie case and the investigation of the Ross murder.²⁰ By the autumn of 2006 the four fingerprint experts at the centre of the case were coming under pressure to resign or retire but that is like blaming the workers in the engine room of the Titanic for running the ship into an iceberg.²¹ There was a complete failure of the social technologies – the processes, procedures and management – in the Scottish Criminal Records Office, the police and the Crown Office and Procurator Fiscal Service (COPFS)²² which brought the McKie prosecution. The system surrounding the science and the scientific experts failed and failed badly, when those experts made a mistake.²³

The McKie case is a clear indication that the application of scientific expertise to decision making processes should never be accepted with blind faith, especially if there is clear evidence of a professional difference of opinion between the experts, which subsequently gets hidden from public view.²⁴ The reliability of the expert opinion crucially depends not just on the science but the integrity of the organisational, social, legal and technical systems supporting and surrounding it.

Notes: Chapter 9

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¹⁷ See http://en.wikipedia.org/wiki/Henry_Faulds.

¹⁸ *On the Skin-Furrows of the Hand* by Dr Henry Faulds, *Nature* 28 October 1880.

¹⁹ Her Majesty's Inspectorate of Constabulary (HMIC) report stated "That the mark was not made by Shirley McKie. It is (the independent experts) view that decision could have been reached at an early point in the comparison process."

²⁰ There are some excellent websites on the case at <http://www.shirleymckie.com/index.htm> and <http://www.clpex.com/McKie.htm> and the Scottish Parliament's Scottish Criminal Record Office inquiry homepage <http://www.scottish.parliament.uk/business/committees/justice1/ScottishCriminalRecordOfficeInquiryHomepage.htm>.

²¹ I appreciate that this is a fairly weak analogy as the fingerprint experts stuck to their opinion with full knowledge of the consequences for Shirley McKie and in the face of their opinion being brought into question by expert colleagues. Nevertheless I make the analogy primarily to emphasise the subsequent point about system failure.

²² Responsible for the prosecution of crime in Scotland and the investigation of any complaints against the police.

²³ Jerry Fishenden has an interesting perspective on the impact on public confidence in forensic science such mistakes might have when biometrics begin to be widely employed. See Fishenden's blog post of 1 August 2006, *Biometrics: Enabling Guilty Men to Go Free? Further Adventures from the Law of Unintended Consequences* <http://ntouk.com/?view=plink&id=169>.

²⁴ In an open letter to the Scottish parliament one of the international experts who testified on behalf of McKie, David Grieve, eloquently spells out the consequences if we ignore this. <http://www.shirleymckie.com/correspondencePDFs/David%20Grieve%20An%20Open%20Letter%20to%20the%20Members%20of%20Parliament.pdf>.