

JUSTICE 1 COMMITTEE

Monday 26 June 2006

Session 2

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JUSTICE 1 COMMITTEE

26th Meeting 2006, Session 2

CONVENER

*Pauline McNeill (Glasgow Kelvin) (Lab)

DEPUTY CONVENER

*Stewart Stevenson (Banff and Buchan) (SNP)

COMMITTEE MEMBERS

*Marilyn Glen (North East Scotland) (Lab)
*Mr Bruce McFee (West of Scotland) (SNP)
*Margaret Mitchell (Central Scotland) (Con)
*Mrs Mary Mulligan (Linlithgow) (Lab)
*Mike Pringle (Edinburgh South) (LD)

COMMITTEE SUBSTITUTES

Brian Adam (Aberdeen North) (SNP)
Bill Aitken (Glasgow) (Con)
Karen Gillon (Clydesdale) (Lab)
Mr Jim Wallace (Orkney) (LD)

*attended

THE FOLLOWING ALSO ATTENDED:

Mr Kenneth Macintosh (Eastwood) (Lab)

THE FOLLOWING GAVE EVIDENCE:

John Berry
Alan Dunbar (Scottish Criminal Record Office)
Terry Foley (Scottish Criminal Record Office)
Alistair Geddes (Scottish Criminal Record Office)
Malcolm Graham
Robert Mackenzie (Scottish Criminal Record Office)
John MacLeod (Berkeley Security Bureau (Forensic) Ltd)
Peter Swann
Mike Thompson (Centrex National Training College)

CLERK TO THE COMMITTEE

Callum Thomson

SENIOR ASSISTANT CLERKS

Euan Donald
Douglas Wands

ASSISTANT CLERK

Lewis McNaughton

LOCATION

Committee Room 1

Scottish Parliament

Justice 1 Committee

Monday 26 June 2006

[THE CONVENER *opened the meeting at 10:40*]

Item in Private

The Convener (Pauline McNeill): Good morning and welcome to the 26th meeting in 2006 of the Justice 1 Committee. Today's meeting will be an all-day one. This morning's part of the meeting will finish at about 12.30 and we will reconvene at 2 o'clock. All members of the committee are present. I welcome Ken Macintosh, who is joining us today. As usual, I ask members and people in the public gallery to switch off anything that may interfere with the broadcasting equipment.

Agenda item 1 is to consider whether to take in private agenda item 4, which is consideration of whether to accept written evidence that has been received after the deadline for the receipt of submissions. Do members agree to take that item in private?

Members *indicated agreement.*

Scottish Criminal Record Office

10:41

The Convener: Agenda item 2 is the sixth oral-evidence session in our Scottish Criminal Record Office inquiry. At previous meetings, I have made a short statement about the terms of the inquiry. I will repeat some of those remarks before we begin. The inquiry is a parliamentary one, not a judicial one. No witnesses who appear before the committee are on trial, but the committee expects all witnesses to co-operate fully; to focus on the lines of questioning; to answer questions in good faith and to the best of their knowledge; and to answer questions truthfully. Although I have the power to require witnesses to give their evidence on oath, I do not intend to use that power at this stage. However, I put it on the record that, if the committee considers that witnesses are not giving us their full co-operation or answering our questions truthfully, the committee can recall them. In those circumstances, I will use the powers that I have, under standing orders and section 26 of the Scotland Act 1998, to require witnesses to give evidence under oath. The overriding aim of the inquiry must be to help to restore public confidence in the standards of fingerprint evidence in Scotland. I expect that the report that we will produce at the end of the inquiry will contribute to that process.

I welcome John MacLeod, an independent fingerprint expert, and thank him for appearing. He will be aware that we have now had the opportunity to read both his reports, which the Scottish Executive has disclosed to us. We have several questions for him.

Margaret Mitchell (Central Scotland) (Con): Mr MacLeod, to put the issues in context, will you say how you first became involved in the identification of mark Y7 by the four SCRO fingerprint experts?

John MacLeod (Berkeley Security Bureau (Forensic) Ltd): Some time ago, I received a request from the Scottish Executive to examine and compare Y7 and the left thumbprint of Shirley McKie. It took some time to get the material that was necessary to carry out the examination, but eventually that came together and the examination was done.

Margaret Mitchell: Was that the first time that you had seen the material?

John MacLeod: Yes.

Margaret Mitchell: Why did the Scottish Executive want you to become involved?

John MacLeod: It wanted another independent view on the matter.

Margaret Mitchell: Was that for any particular purpose? What was the background?

John MacLeod: I presume that it was in connection with the civil action.

Margaret Mitchell: Do you mean the civil action that was being pursued by the McKies?

John MacLeod: Yes.

Margaret Mitchell: What was your approach? What evidence did you consider and to whom did you decide to speak?

John MacLeod: It might help if I gave a résumé of the fingerprint system, although perhaps that would bore you, because you have probably heard it from others.

Margaret Mitchell: You went about your own analysis of the print. Did you look at other reports? I think that you considered Mr Zeelenberg's report, for example.

John MacLeod: Yes, I did.

10:45

Margaret Mitchell: Did you consider Mr Swann's report as part of your inquiry?

John MacLeod: No, I did not.

Margaret Mitchell: Given that you were considering the civil action, would it have been sensible to have considered a report from someone who had identified print Y7 as well as one from someone who had not identified the mark?

John MacLeod: I received the material for examination from the SCRO, which had made an identification—that was one side and Arie Zeelenberg was on the other side, so I had the opportunity to see both.

Margaret Mitchell: Did you speak to the four fingerprint experts?

John MacLeod: No.

Margaret Mitchell: In paragraph 11 on page 14 of your July 2004 report, you say that occasionally there are differences of opinion. Talking through such matters often makes a difference, but you never spoke to the four fingerprint experts.

John MacLeod: No, I did not.

The Convener: I want to try to draw out some of the detail of your analysis of the mark. You are correct to assume that committee members are learning about the process as the weeks go by, but it is always helpful to hear another person's view.

Was the Y7 mark complex to analyse?

John MacLeod: Yes, very complex.

The Convener: Some analysis focused on whether the mark was made by a double touch or by a single touch. What conclusion did you come to?

John MacLeod: Almost certainly the same thumb made a mark in two parts, by twisting. The tip of the thumb might have touched the wooden frame first and then slid round this way, or it might have happened the other way round—the thumb might have touched the wood and slid that way.

The Convener: Did you conclude that both parts of the mark belonged to the same person?

John MacLeod: They almost certainly did. It would be highly unlikely for two different people to put their thumb in that position.

The Convener: Were you aware that other experts had come to a different conclusion? There was an inference that two people might have made the mark.

John MacLeod: That is possible, but highly unlikely.

Mrs Mary Mulligan (Linlithgow) (Lab): In paragraph 45 of your report of October 2005, you suggested that the mark had been made in two parts:

"the top of the mark having been made by the tip of a thumb and the lower part by the area of the thumb from just below the core and upwards."

However, in the same paragraph you said:

"I cannot exclude the possibility that the finger mark may have been formed by two separate digits but I consider this the less likely option."

Is that still your position?

John MacLeod: Yes.

Mrs Mulligan: Has it been your experience in the past that you could not be absolutely certain about a fingerprint, in the way that you describe in your report?

John MacLeod: Yes.

Mrs Mulligan: What happens in such a situation? What is the process of identifying the mark?

John MacLeod: I cannot think of a case in which that has happened, but it must have happened in 45 years of examining fingerprints. I imagine that the process of examining, comparing and identifying the better part of the mark could continue and that it might be possible to compare the other part and exclude it as being from someone else—but you ask a hypothetical question.

The Convener: Did the fact that the SCRO officers identified the mark as part of an elimination process make a difference?

John MacLeod: Personally, I think that it might have done, but there is no evidence to suggest that.

The Convener: How do you come to that conclusion?

John MacLeod: In all their statements, the SCRO officers said that they followed the rules and did the job as they should have done.

The Convener: You studied the SCRO officers' statements. Did you speak directly to the officers?

John MacLeod: No. I did not speak to them directly.

The Convener: In your view, was there any need to get the SCRO officers to talk through why they reached the conclusion that they reached?

John MacLeod: I suggested to the Scottish Executive that I could have talked to them, but it decided that that was not a good idea.

The Convener: When we have listened to the various explanations as to why the mark is or is not a McKie mark, the missing bit for me has been hearing why SCRO officers reached the conclusion that they reached. You are saying that you would have preferred to have had direct discussions with them.

John MacLeod: Yes.

Stewart Stevenson (Banff and Buchan) (SNP): I would like to nail down the issue relating to the two parts of the thumb print. You have said that you cannot discount the possibility that there are differences. If one half of the print had points of comparison that were the same as those in a print from the tenprint and there were no differences, the existence of differences in the second part of the print would not necessarily lead you to conclude that the thumb print was a different thumb print? In other words, you are actually comparing one part of the doorpost print and the print that is known to be that of Shirley McKie and then separately comparing the second part of the thumb print and the Shirley McKie print? Would you approach things in that way if you thought that there were potentially two separate marks?

John MacLeod: Yes. If there is sufficient detail and sufficient ridge characteristics are in agreement and sequence in one half of the print, that is fine. In this instance, however, some disagreement in the other half of the print could be ignored because of the movement and the pressure that has been applied at the top of the mark.

Stewart Stevenson: Therefore, the existence of differences in one half of what was on the doorpost would not automatically exclude the possibility that if there are no differences in the other half there is a match.

John MacLeod: That is right.

Stewart Stevenson: That is fine. Thank you.

Mike Pringle (Edinburgh South) (LD): Like Stewart Stevenson, I want to nail down a couple of things. You were asked whether you spoke to SCRO officers. You said that you did not do so, and that you were told not to do so by the Scottish Executive. Let us be absolutely sure about what happened. The Scottish Executive instructed you to carry out the report.

John MacLeod: Yes.

Mike Pringle: Did it tell you to look at Arie Zeelenberg's report?

John MacLeod: Yes. It sent me a copy.

Mike Pringle: So you did not ask for it.

John MacLeod: No.

Mike Pringle: The Executive also sent you copies of stuff from the SCRO.

John MacLeod: Yes.

Mike Pringle: So those were the two sides of the story.

John MacLeod: Yes.

Mike Pringle: Did you ask to speak to anybody else? Did you ask for any other reports? If so, why? Were they denied to you? If they were, why were they denied to you? I want to find out exactly what the Scottish Executive told you to do and how you carried out your inquiry. We have heard that you were given stuff by the Scottish Executive and that you asked to speak to people, but you were told not to do so. What other information can you give to the committee about what you were told to do? The question is important.

John MacLeod: I did not ask for anything that I did not subsequently see unless people in the Scottish Executive could not get their hands on it. There were quite a lot of exhibits that it was very difficult for them to get their hands on. I think that one of the problems was getting them and sending them down to England. I live in Guildford and work in London, which means that I had to come up to Kilmarnock to see the original exhibit.

Mike Pringle: Was there anything else that you wanted that you did not get or anything else that the Executive said that it wanted you to look at?

John MacLeod: Not that I recall.

Mike Pringle: Did you examine the print on the doorframe rather than on the internet or somewhere else?

John MacLeod: Yes.

Mike Pringle: So you examined what you would describe as the best possible evidence.

John MacLeod: Yes, I saw Y7.

Mike Pringle: On the doorframe.

John MacLeod: Yes, on the doorframe.

The Convener: What other reports did you look at? You know Mr Zeelenberg's view of the mark. Did you look at Mr Wertheim's evidence in the perjury trial?

John MacLeod: Yes.

The Convener: Did you read the evidence of any other experts?

John MacLeod: I received transcripts of the evidence of several major witnesses in the Shirley McKie trial. They were sent to me by the Scottish Executive.

The Convener: I put this question to you in good faith. Issues have been raised with the committee about cultures and mindsets that may exist and which we want to examine in more detail. Do you think that it was right that you should have seen the opinion of other experts and the trial transcript before you analysed the print? That means that you were asked to reach a conclusion knowing what the court decision and the expert view at the trial were.

John MacLeod: I am not exactly sure at what stage I saw the transcripts. It may have been after I had seen the original exhibit. I am sorry, but I do not have that information with me.

The Convener: Does that mean that you are not sure whether you saw the trial transcripts before you reached a conclusion about Y7?

John MacLeod: I am not sure. I think that I may have seen the transcripts afterwards.

Mike Pringle: What about the evidence from Arie Zeelenberg?

John MacLeod: I may have seen that afterwards as well.

Mike Pringle: So you saw Y7 in Kilmarnock before you saw anything else.

John MacLeod: Yes.

Mike Pringle: Can you confirm that?

John MacLeod: Yes.

Mike Pringle: So you were not influenced by anything before you saw the fingerprint?

John MacLeod: No.

The Convener: The line of questioning that I was following was quite different from Mike Pringle's. I know that you said that you cannot be clear on the matter, but I wanted to know whether you had seen the reports of other experts, especially the evidence that was given at the

perjury trial. You cannot tell the committee that, as you are not sure.

John MacLeod: I am not sure, but I certainly saw the Kilmarnock mark and Shirley McKie's fingerprint forms before I saw anything else.

Margaret Mitchell: Can you be a bit more specific about who in the Scottish Executive said that it would not be a good idea to talk to the four experts?

John MacLeod: When I came to give a presentation of my findings, I suggested that it might or might not be a good idea to talk to the experts. The Executive thought that it would not be. I am not sure who said that.

Margaret Mitchell: Was it a civil servant?

John MacLeod: It was a solicitor at the Scottish Executive.

Margaret Mitchell: Perhaps you can come back to that issue. If you remember who it was, you can put that information on the record.

John MacLeod: If you can give me the possible names, I am pretty certain that I can pick out the right one.

Margaret Mitchell: That would be important. If you could come back with the information at a later date, that would be helpful.

You saw the report from Mr Wertheim, which, in a way, kicked off the whole thing at the perjury trial, as the court accepted his evidence. He told the committee that, in his opinion, it is a very simple mark, that he was able within 60 to 90 seconds to say that it was definitely not Shirley McKie's and that it was a right thumbprint. Would you like to comment on that identification, given its importance in the scheme of things?

John MacLeod: I certainly do not agree with what he said about 90 seconds, or whatever the timescale was. It is a complex mark, and it took me quite a long time to work it out.

When I first looked at the mark, I thought that it was a right thumb because of the tendency of the slope at the tip. That was just a general view. However, I subsequently looked at the mark more closely—I put a glass on it. If the mark was Shirley McKie's, it could only be from her left thumb.

11:00

Mr Bruce McFee (West of Scotland) (SNP): Can I clarify that point?

The Convener: Make sure it is on that point.

Mr McFee: If the mark was Shirley McKie's, it had to be her left thumb.

John MacLeod: Yes.

Mr McFee: What if it was another individual's mark? Could it have been a right thumb? What is the likelihood of that?

John MacLeod: It is possible.

Mr McFee: Likely or possible?

John MacLeod: Possible.

The Convener: Margaret Mitchell asked you who instructed you that it would not be a good idea to talk to the four experts, but you could not remember. Just for the record, paragraph 9 of your October 2005 report states that you were instructed by Fiona Robertson of the office of the solicitor to the Scottish Executive. Does that sound right?

John MacLeod: That is right. She instructed me in the first instance. However, I think that she is more on the criminal law side. The issue was taken over by someone on the civil law side.

The Convener: Okay.

John MacLeod: I do not think that it was Fiona Robertson who suggested that talking to the four experts was not a good idea. That was done by the person who took over from her, who was a civil lawyer rather than a criminal lawyer.

The Convener: So you were not referring to Fiona Robertson.

John MacLeod: No.

The Convener: Fair enough.

Marlyn Glen (North East Scotland) (Lab): I want to look a little bit more at the instructions from Fiona Robertson of the Scottish Executive. You were looking at whether the fingerprint officers took enough care to identify the prints. You said that the print in question is a complex one.

John MacLeod: Yes.

Marlyn Glen: I would like to tease out whether you were saying that there was professional negligence with regard to that complex print. Can you put that in the context of the officers looking at the print as an elimination print from the scene of the crime and trying to match it with one of the police officers who would have reasonable cause to be there?

John MacLeod: I think that that is a possibility. I am not sure whether they knew at the time that it was for elimination purposes. However, I would have thought that they would have been aware of that because I understand that Shirley McKie's fingerprints were missing at the initial stages.

Marlyn Glen: Not at the very beginning—I mean at the initial stage when the officers identified the print as Shirley McKie's. What I was trying to tease

out was whether you are saying that the care that the officers took at that point was what you would expect.

John MacLeod: According to the records, yes.

Marlyn Glen: Right. So at the point when they identified and eliminated the print, there is no criticism at all of their standard of care.

John MacLeod: No, I think that the records show that the print was thoroughly eliminated and counterchecked.

Marlyn Glen: That is helpful.

Mr McFee: Can I clarify that point? You said, "According to the records".

John MacLeod: Yes.

Mr McFee: Does that mean that there is doubt in your mind?

John MacLeod: Well, with elimination prints there is always a tendency to be not as thorough as you might be. However, I am perhaps speaking out of turn here.

The Convener: There are questions about that remark. We will start with Marlyn Glen.

Marlyn Glen: Do you mean as thorough as you might be or as thorough as you need to be? If you are at work and have lots of work to do, you do not want to spend half an hour on something that is patently obvious to everybody. You would be expected to get through a certain amount of work at a particular rate.

John MacLeod: Yes, indeed. In this case, I think there were something like 400 or 450 marks to get through.

Marlyn Glen: So you would use the care that would be expected at that time.

John MacLeod: Yes, I would expect so.

Mrs Mulligan: I have two quick questions. You said that you understood that Shirley McKie's prints were missing at first. What made you say that?

John MacLeod: Yes, they were missing. I have some documentation to show that the prints were not available to be checked.

Mrs Mulligan: At what stage were you given that information?

John MacLeod: I think that it was fairly early on. Mind you, when I got the material to work with it was several years after the event. I do not know what was documented then, so I cannot state when it was discovered that the prints were missing; however, I know that they were definitely missing when the first comparison was made.

Mrs Mulligan: So, you had information that would not have been available at the time of the identification being made.

John MacLeod: It would have been available at the time of the identification being made, as the fingerprints must have been recovered from somewhere. I think that another set was taken, but I am not terribly sure.

Mrs Mulligan: Okay.

You have said that you think that due care was taken in the processes that you think were gone through. How do you reconcile that with the opinion that is expressed in your July 2004 report:

"In this mark I found so many significant differences that the identification should not have been made?"

John MacLeod: Quite simply. What I meant when I said that due care was taken was that this was done, this was done, this was done and it was all checked. What I mean in the report is that it was not right.

Mrs Mulligan: I do not understand how someone could have gone through the procedures and arrived at the wrong conclusion.

John MacLeod: They could have gone through the procedures by looking at A, B, C and D and coming to conclusion A. If four people did the same thing, their procedures were correct but their conclusion was wrong.

Mrs Mulligan: But you said that they took due care, which implies that you thought that they were doing the correct thing. How could they have followed the correct procedure and arrived at the wrong answer?

John MacLeod: That I do not know.

Mrs Mulligan: Neither do I.

Margaret Mitchell: You said that all the processes had been adhered to.

John MacLeod: Yes.

Margaret Mitchell: First, it was an elimination print; therefore, you think that perhaps sufficient attention might not have been paid to it if the processes were gone through.

John MacLeod: Yes.

Margaret Mitchell: But there came a point when the mark was in question. In those circumstances, would not the fingerprint experts have revisited the mark and spent even more time examining it in a belt-and-braces approach?

John MacLeod: I certainly would have, and I would have expected them to do so as well.

Margaret Mitchell: You were not able to talk to the experts. Do you know whether that was done? I think that, in evidence to the committee, they said that they did that.

John MacLeod: I think that I have statements to show that that was done.

Margaret Mitchell: Let us go back to paragraph 11 on page 14 of your July 2004 report. We are quite deeply into the fingerprint world these days, and we know that there is sometimes a difference of opinion. By discussing things, experts can either come to an agreement or see something that they had not seen and a problem can be resolved. In your view, would you have preferred—ideally, to be really thorough—to have spoken to the four experts, just to satisfy your own mind?

John MacLeod: Yes, I think so.

Margaret Mitchell: Why did the Executive say that you could not do that?

John MacLeod: I do not know. Normally, when properly trained experts look at the same material, they should come to the same conclusions.

Margaret Mitchell: Thank you. I appreciate your frankness.

Mr McFee: I just want to clarify a couple of things that you have said. First, would speaking to the experts at that time have altered your conclusion that it was not Shirley McKie's fingerprint?

John MacLeod: I cannot see that, no.

Mr McFee: Fine. Secondly, I ask you to go a wee bit deeper. Page 15 of your report of July 2004 contains your conclusions. Paragraph 16 on that page states:

"Taking reasonable care would have shown that the mark Y7 had not been made by Shirley McKie."

You say very clearly—it is very clear to me—that

"Taking reasonable care would have shown that the mark Y7 had not been made by Shirley McKie."

What are you saying? Are you saying that it is possible to tick all the boxes procedurally and to go through the process—whatever it was at that time—and come up with the wrong conclusion? What do you mean by:

"Taking reasonable care would have shown that the mark Y7 had not been made by Shirley McKie"?

John MacLeod: It would have been helpful if I could have given a presentation to show the characteristics, but I cannot do that. There are three characteristics that are blatantly clear in the mark but not present on Shirley McKie's thumb. Look at characteristic number 5 on the scene mark, which I describe as a ridge ending upwards. If we count from the core to that point, we find that four ridges intervene between them, but if we count four from the same area on Shirley McKie's thumb, there is no ridge ending to coincide with the one in the scene mark. That is a blatant missing characteristic. If, from that ridge, we go another two ridges to the right, there is another ridge ending upwards, which is marked 4, but the

point that is marked 4 on Shirley McKie's thumb print is three ridges out instead of two. Those are huge discrepancies. If we go up from point number 4 on Shirley McKie's thumb, we come to a bifurcation downwards, and that characteristic is not present on the scene mark. There are three clear characteristics that are just not in both marks.

Mr McFee: For the benefit of the uninitiated, such as me, will you tell me what part of the print that is on? Is it on the disputed tip?

John MacLeod: No, it is immediately to the right of the core.

Mr McFee: So it is the central part.

John MacLeod: It is the part that the SCRO relied on to establish the identification.

Mr McFee: And it is not on the tip.

John MacLeod: No, it is not.

The Convener: For the record, we are looking at the exhibit that Mr Zeelenberg submitted that shows Shirley McKie's print and the Y7 mark.

Margaret Mitchell: Will you comment on the use of the acetate sheet? Do fingerprint experts routinely use such sheets in court evidence or is it usually just the human eye that determines an identification?

John MacLeod: I have never used acetate sheets in court, but I have used them to establish an ident when the marks are difficult to work with.

Margaret Mitchell: Do acetates offer a way forward so that we could dispense with experts or do experts still have the overwhelming advantage?

John MacLeod: There are moves afoot to let the machines check tenprint fingerprint forms against databases, but the process is not 100 per cent accurate. It is necessary to have the human element to establish an ident.

Margaret Mitchell: Presumably that is what the four fingerprint experts used.

John MacLeod: Yes.

The Convener: Are the marks alike at all or are they completely different?

John MacLeod: The only characteristic that I can see—which is not well marked in this image—is the rod in the middle of the central recurving ridge, which is possibly one characteristic that is in sequence and agreement in both marks. I cannot find any others that are in agreement and sequence to my satisfaction.

11:15

The Convener: Which number are you referring to?

John MacLeod: I am referring to an area that is not numbered. The central recurving ridge is the innermost recurving ridge. All the ridges recurve until you get down to the middle. In the middle of the right-hand image, the two ridges meet and touch the innermost recurving ridge on its lower edge. That characteristic appears to be present on the left-hand image, although it is not well marked on the copy that I have with me. I see no other characteristics that match.

The Convener: In your opinion, there is only one similar characteristic.

John MacLeod: Yes.

The Convener: Have you anything to say about how the experts at the Glasgow fingerprint bureau, who had considerable experience, could have identified 16 characteristics in sequence?

John MacLeod: It may be that when they considered the mark as an elimination, they decided that it was eliminated and that that was the end of it. Once they had gone down that road, they perhaps felt that they could not back out. That is just an idea.

The Convener: I want to ask about dissimilarities. As an expert, how do you go about assessing the number of dissimilarities between two marks, which you did in your report? Would you look for dissimilarities first?

John MacLeod: I would look for similarities and dissimilarities. The mark on the left-hand side of the sheet is not a good mark at all. I used Terry Kent's image—I am sure that the committee has heard of Terry Kent's photograph of mark Y7, which I think is the best one that is available. For the most part, during my comparison I compared the characteristics of Shirley McKie's mark, which were marked up by the SCRO, with the equivalent—or near equivalent—areas of mark Y7 and could find no similarities, apart from the one that I have referred to. The SCRO images were so poor that they were useless as a medium for explaining an identification to a jury; they were totally inadequate.

The Convener: If you were examining the similarities and dissimilarities between two marks, how many dissimilarities would lead you to say that, regardless of how many similarities there were, there was not a match?

John MacLeod: I would need to find only one clear dissimilarity.

The Convener: One clear dissimilarity that could not be accounted for would be sufficient for you to say that there was not a match.

John MacLeod: Yes. As I understand it, the Scottish system still requires 16 points of similarity to be found before a print can be used in court,

although that may have changed—I am not sure. In other countries, where the non-numeric standard has been adopted and the 16-point standard is no longer in use, it is up to the expert to decide how many characteristics he is happy with. Other aspects come into play, such as the shape of the ridges and the number and position of the pores.

The Convener: I just want to confirm that you said that if you found one clear dissimilarity, that would be enough for you to stop the process and to conclude that there was not a match.

John MacLeod: That is correct.

Mr McFee: Can I clarify—

The Convener: I will let other members come in, but I have not finished my questions yet.

Is that what the Home Office guidance says or is that just your opinion?

John MacLeod: It used to be the case that it was necessary to find 16 characteristics in sequence and agreement and none in disagreement. Under the non-numeric standard, that idea no longer applies, but in Scotland I think that it is still the case that there must be 16 characteristics in sequence and agreement and none in disagreement.

The Convener: You are saying that the Home Office guidance makes it clear that, under the predecessor of the non-numeric standard, there should be no characteristics in disagreement.

John MacLeod: Yes.

The Convener: In other words, an expert who continued to seek a match once they had found a single dissimilarity would not be following the Home Office guidance. Is that correct?

John MacLeod: That is right, if the 16-point standard is still used in Scotland, as I believe that it is. I do not know whether Scotland has gone on to the non-numeric standard yet. I know that it intends to do so at some date.

Mr McFee: You have said that the Home Office guidance says that one dissimilarity would halt the process. Obviously, you kept on looking. In this case, how many significant dissimilarities did you find?

John MacLeod: To start with, three or four. I cannot remember exactly how many I had found when I stopped and did my first report. I went to the Scottish Executive and talked through the report and was asked to go back and see how many faults there really were. My second report, which you have probably read, covers all the characteristics.

Mr McFee: Can you recall how many significant dissimilarities there were?

John MacLeod: There were 16. Well, 15, because I would accept that one characteristic, which you can see in one of the pictures that I am holding up, matches one in the other picture that I am holding up.

Mr McFee: So, after having been asked by the Scottish Executive to look at Y7, you were sent away to re-examine it. In the first examination, you found three or four dissimilarities, which was more than enough to enable you to conclude that it was not a match and, in the second examination, you found 15 significant dissimilarities. Is that correct?

John MacLeod: Yes.

Mrs Mulligan: If the Home Office guidance says that once a dissimilarity is found, the match can be discounted, why would you be asked to look for others?

John MacLeod: You would need to ask the Scottish Executive. I think that the phrase that was used was, "How bad was it?"

Marlyn Glen: We are talking about unexplained dissimilarities. That is the crux of the matter. In his evidence to the committee, Peter Swann explained all the dissimilarities when he talked about the twist, the changes and so on. The difficulty is that, although you might say that something is a dissimilarity, someone else can explain why it is not. The issue is a little bit more complicated than prints simply not matching.

John MacLeod: If a dissimilarity could be explained, that would be in order.

Marlyn Glen: It would cease to be a dissimilarity.

John MacLeod: Yes.

Marlyn Glen: I think that that is the crux of the matter.

Stewart Stevenson: I want to return to some of the general aspects of the issue of original materials. You have said that you did not use the photographs that the Scottish Criminal Record Office used because you thought that they were of poorer quality than the one that you used, which you said was from Mr Kent.

John MacLeod: I used them, but not to any great extent because they showed few clear characteristics.

Stewart Stevenson: The phrase "original materials" is one that a number of witnesses have used before the committee. I want to get your view of what that means. It appears to mean, in most instances, a photograph or an imprint. On the evidential side, a photograph of the original is regarded as original material because it is first generation. Is that the common usage?

John MacLeod: Yes.

Stewart Stevenson: So, if there is a controlled procedure for delivering a photograph of a print on a doorpost, that photograph is regarded as original material.

However, as you have said, that category of original material can be of variable quality, depending on the technology that is used, the illumination that the photographer uses and a host of other issues.

John MacLeod: Yes.

Stewart Stevenson: Therefore, it is not unreasonable that there can be different qualities at that point in the process. I presume that a thumbprint on a form is not original material either—the actual thumb is the original material. Also, people would normally use a photograph of the form rather than the original form.

John MacLeod: Yes.

Stewart Stevenson: So, when we talk of original material, we are normally talking of a controlled reproduction of the evidence. In this case, the print on the doorpost was on one side of the comparison and a controlled reproduction of the fingerprint form—to understood technical standards—was on the other.

John MacLeod: Yes.

Stewart Stevenson: Would it be legitimate to use the term “original material” if controlled copies were then made of the two parts of the comparison?

John MacLeod: Not really.

Stewart Stevenson: So you think that the term is appropriate only for first-generation copies—although, when I say that, I am assuming that we are still in the days before digital. It would be possible to take a number of prints from the same negative and they would all be defined as original material.

John MacLeod: Indeed, yes.

Stewart Stevenson: The same would be true of reproductions of the fingerprint form.

Now that we have established that, can any of the difficulties in which the Glasgow bureau and the Scottish criminal justice system now find themselves be attributed to the lower quality of the material that the people at the SCRO were using as original material when making comparisons, the quality of which was lower than that of the material that you were using, which had come from Mr Kent?

John MacLeod: Yes. Terry Kent's print of Y7 was superior to anything else that I have seen. As for Shirley McKie's left thumbprint, it is perfectly

acceptable on all the forms. The characteristics are clear. There is no doubt about the characteristics and no doubt about their orientation. The problem is in the mark.

Stewart Stevenson: Are there issues that we should be considering, and perhaps reporting on, to do with the way in which the mark—which is generally if not universally accepted to be complex—was originally photographed from the doorpost in 1997? Should the Scottish criminal justice system consider that further?

John MacLeod: Maybe. But it might be more important to consider what is called the charting PC. In my opinion, for this mark the charting personal computer is a useless tool. It does the mark no justice whatsoever. I felt sorry for the SCRO guys who had to use that charting machine to produce marks. The three marked-up enlargements that I saw as court exhibits were absolutely useless.

Stewart Stevenson: What appears on the screen of the charting PC, or what is output by the charting PC, is a further transformation of the first-generation photograph.

John MacLeod: I would say so.

Stewart Stevenson: And the quality will have been adversely affected by the processes of the computer.

John MacLeod: I think so. I have never seen the machine, but the output looks pathetic.

Stewart Stevenson: Let us go back to the first elimination—the first identification. Did the SCRO experts use the output of the PC, on screen or on paper, or did they use the original photograph, before it had gone anywhere near the computer?

11:30

John MacLeod: I do not know what the procedure would be, but I would expect them to compare the mark against the thumbprint before putting it on the charting PC.

Stewart Stevenson: If the comparison is done on the photograph before the charting PC is used, what is the role of the charting PC?

John MacLeod: I understand that the charting PC is used to produce an enlargement for court. I understand that they would mark up the characteristics, draw out the lines—or the machine would do that, perhaps—and produce a print. I do not know whether they would use an ordinary comparator to decide which characteristics to use before putting the mark on the charting PC.

Stewart Stevenson: So, in the process of transformation from the original, first-generation print to what will be produced in court there is

scope for misrepresenting—in a technical sense; I am not talking about humans—the comparison that will be relied on in court.

John MacLeod: Yes. I think so.

Stewart Stevenson: Right. Let me just—

Mr McFee: May I come in on that point?

My understanding is that the charting PC was used to produce evidence for court. It would not have been used to compare the two marks. I have been listening to the evidence and watching those who were involved to see whether they were nodding their heads. What I saw might indicate that, first of all, they would have compared the print with the original photograph rather than with something that was marked up on the charting PC. I want to be clear on that, because I was watching the appropriate individuals in the public gallery.

John MacLeod: I would expect the mark to be compared with the fingerprint form, apart from its being put on to the charting PC. The charting PC would follow, in my opinion. I do not know what their procedure was, but I would expect it to be that way round.

Stewart Stevenson: On the matter of the prints that were taken from Shirley McKie, other witnesses mentioned the different processes by which prints can be obtained, including pressing the thumb straight down and rolling the print. Did you use a rolled impression as part of your comparison?

John MacLeod: I think that I would have used both rolled and plain, whichever was appropriate at the time.

Stewart Stevenson: Did you have access to both?

John MacLeod: I think that I had three copies of Shirley's prints from the Scottish Executive.

Stewart Stevenson: Was the process by which those prints were produced documented, or, as an expert, were you able to understand simply by observation whether something was a rolled print or—

John MacLeod: I think I could tell.

Stewart Stevenson: Yes, but you must understand that the laypeople on this side of the table have to ask what might appear to be silly questions to ensure that we get things on the record.

John MacLeod: I beg your pardon. I can tell whether a print is rolled or plain.

Stewart Stevenson: So you are satisfied that, as part of your comparison, you were using a rolled print?

John MacLeod: I would use both.

The Convener: The photograph of the mark, which you thought was an excellent reproduction, was taken by Terry Kent. Where does he come in? Was the photo taken for your purposes or did you pick it up from somewhere else?

John MacLeod: I understand that, before the trial, there was a suspicion that the mark at the scene had been planted there. Terry Kent was brought in to verify the authenticity of the finger mark on the doorpost. That is the situation as I understand it. I have known Terry Kent for years. He worked down at Sandwich, but he is retired now. He is an ace photographer. I did not know anything about this until much later, but I understand that that is why he was called in to take the photograph and examine it to see whether the mark had been planted there or put down naturally. I think that his conclusion was that the mark was natural.

Margaret Mitchell: Who decides how fingerprint evidence is presented in court? We heard that the fiscal gets what the fiscal wants. Would it be fingerprint experts or the procurator fiscal?

John MacLeod: The fiscal.

Margaret Mitchell: That is helpful, thank you.

When you first examined the mark, you found about five discrepancies. At that point, did you indicate to the Scottish Executive that you would like to speak to the fingerprint experts to discuss those discrepancies?

John MacLeod: No, not at that stage. I mentioned it when I saw the Executive in Edinburgh and gave my findings.

Margaret Mitchell: Your complete findings.

John MacLeod: No, my first findings. I thought that my first report was enough, but the Executive wanted to expand the findings and see how bad it really was.

Margaret Mitchell: Was that the phrase that the Executive used? Did it say that it wanted to “see how bad it really was” as opposed to asking whether there could be a rational explanation or whether the matter could be discussed further to see whether there could be some agreement or explanation of how the discrepancies had arisen?

John MacLeod: I think that the phrase was “see how bad it really was”—or words to that effect.

Margaret Mitchell: In your opinion, had the Scottish Executive already made up its mind?

John MacLeod: It accepted what I had disclosed.

Margaret Mitchell: There was no robust approach or even any mention of talking to the

four fingerprint experts to see whether there could be another explanation.

John MacLeod: I suggested it, but it was a glib suggestion really. I did not expect it to agree to that and it did not. I just left it.

Margaret Mitchell: That is astounding. We have ended up talking about £750,000 of taxpayers' money, but you were not able to satisfy yourself fully by talking to the experts.

John MacLeod: I do not think that it would have changed my mind, to be honest.

Margaret Mitchell: But, for the avoidance of doubt, you would have preferred to speak to them.

John MacLeod: I would not have minded.

Mike Pringle: You mentioned presenting your first report. Was that in July 2004?

John MacLeod: Yes.

Mike Pringle: The Executive accepted your conclusion on page 15 of your first report, which states:

"It is my opinion that the differences between the characteristics in the mark Y7 and those in Shirley McKIE's left thumb can be clearly seen and that reasonable care could not have been taken during the comparisons that wrongly made this identification."

You were saying that it was not Shirley McKie's fingerprint.

John MacLeod: Yes.

Mike Pringle: Why did the Executive then ask you to do a second report?

John MacLeod: You would have to ask the Executive that.

Mike Pringle: Why do you think that you were asked to do it? You obviously discussed it with the Executive.

John MacLeod: Yes. I think that I pointed out three, four or five differences and it wanted to see more. It wanted to be sure that I was right. I think that that might have been it.

Mike Pringle: Okay. At that point, did you think that the Executive had any doubt about what you were saying? Obviously, by the time you presented your report in July 2004, the Executive was aware of everything that had gone on before, such as people saying that it was a misidentification or that it was an identification. Can you enlighten us a bit more about what happened at that meeting when the Executive said that it wanted you to do a second report?

John MacLeod: I assumed that the Executive accepted my report.

Mike Pringle: Did it have your report before you met?

John MacLeod: No.

Mike Pringle: So you met representatives of the Executive and talked through your July 2004 report.

John MacLeod: Yes.

Mike Pringle: At the end of that meeting, the Executive said to you, "Well, we think you are absolutely sure, but we are not sure, so we'd like you to do another report."

John MacLeod: That was the gist of it.

Mike Pringle: So you then produced a second report some considerable time later in October 2005.

John MacLeod: Yes.

Mike Pringle: When you met the Scottish Executive with that report, you went through it. Your second report has some more detail and it says that there was no identification. By that time, had you come up with more reasons why the mark was not Shirley McKie's fingerprint?

John MacLeod: Oh yes.

Mike Pringle: The first report showed four discrepancies. How many did the second one show?

John MacLeod: Fifteen.

Mike Pringle: You found 15 differences.

John MacLeod: Yes.

Mike Pringle: At that point, you were absolutely certain.

John MacLeod: Yes.

Mike Pringle: You presented your second report in October 2005. Do you think that that is why the Scottish Executive decided to settle?

John MacLeod: It looks very like it.

Mike Pringle: Is that your opinion?

John MacLeod: Yes.

Mike Pringle: As a result of your second report, the Executive thought that a mistake had been made and it was not going to win in court, so it should settle with Shirley McKie.

John MacLeod: I think so.

Mike Pringle: That is your view.

John MacLeod: Yes.

Mike Pringle: Thank you.

The Convener: I will raise a couple of outstanding issues. Mr Wertheim was quizzed a few weeks ago about the fact that he took 100 impressions of Shirley McKie but only a few were released for comparison. Does that make any

difference? Is there anything unusual about taking so many impressions? He told the committee that he needed 100 impressions from Shirley McKie so that he could try to compare the print with the mark in different ways.

John MacLeod: I imagine that what he was trying to do was to get all the characteristics present in the tip on the form so that he could double check the top area of the print. I imagine that the lower half of the left-hand print in annex K is pretty well covered in the existing prints from Shirley McKie. The only part that really requires a lot of work is the top right of the left-hand print of annex K, which is not very good anyway as it is subject to superimposition, extra pressure and movement. However, 100 impressions seems excessive.

The Convener: You confirmed earlier that you used three prints. Is that correct?

John MacLeod: Yes. I used the three that the SCRO had used for its court exhibits.

The Convener: Okay.

Mr Kenneth Macintosh (Eastwood) (Lab): I will ask about the conclusions of your report. You say early on in your report that you think that the officers took care in trying to establish the identity of this print, but you conclude that they did not take reasonable care. On what basis do you think they did not take reasonable care?

John MacLeod: What I meant in the first comment to which you refer is that they followed the proper procedure. Everybody did A, B, C, D, E, F, G and everything is signed, so they followed the procedure, but in fact they got it wrong.

Mr Macintosh: So the reason that they did not take reasonable care is because, in your opinion, they came to the wrong conclusion. Essentially, you have a different opinion from them, so you are right, they are wrong and that is why they did not take reasonable care.

John MacLeod: Yes.

Mr Macintosh: Because, in your opinion, they got it wrong and did not take reasonable care it is not a difference of opinion: it is professional negligence.

John MacLeod: Yes, I would say so. I am not sure that the procedures that were signed for were followed. If somebody very senior signs something up as an ident and then it is given to somebody a little less senior, and so on down the line, it is very difficult for the person lower down the line to have a variance of opinion.

Mr Macintosh: Okay, but that is working backwards to try to justify your conclusion. In the end you are saying that it is professional negligence rather than a difference of opinion.

Because they disagree with you, your opinion is right and theirs is wrong.

There are obviously many opinions on the mark.

John MacLeod: Indeed.

Mr Macintosh: Your report says that it is a mark in two parts.

John MacLeod: Yes.

Mr Macintosh: We are about to hear evidence from an expert at the national fingerprint training centre. They say that it cannot have been a mark in two parts. Is that a difference of opinion or are they professionally negligent?

John MacLeod: My opinion is that it could be a mark created by a down-and-up movement of one digit, or it could be two digits. You cannot really tell, but my opinion is that the mark is more likely to have been made by one digit.

Mr Macintosh: They say that you can tell, and their opinion differs from yours. Are they wrong? Is that a difference of opinion, or are they negligent?

John MacLeod: Sorry, what are they saying?

Mr Macintosh: They say that it is not a double digit impression.

John MacLeod: I do not think that it is either, but I cannot discount the possibility. I am saying that I think that it is one mark in two parts, with a bit movement and a bit extra pressure. That is what I think, but it is perhaps possible that it is two digits, although I do not think that it is.

Mr Macintosh: So it is just a matter of opinion in that case.

John MacLeod: Yes.

Mr Macintosh: You say, helpfully, that it is a very complex mark.

John MacLeod: Yes.

Mr Macintosh: Mr Wertheim says that the mark can be identified in 60 to 90 seconds. Is that a matter of opinion or is he professionally negligent?

John MacLeod: That is a matter of opinion; I do not share his opinion.

Mr Macintosh: He has a different opinion. Is he negligent in holding his opinion or is it just a different opinion?

John MacLeod: It is a different opinion.

Mr Macintosh: You said that, at first, you thought it was possible that the mark could have been made by a right thumb, but you concluded that it was a left thumb. Mr Zeelenberg, Mr Bayle and various others think that it is definitely a right thumb. Is that a difference of opinion or is that professional negligence?

11:45

John MacLeod: It is a difference of opinion. I thought, to start with, that it was a right thumb, but I now think that it could be a left thumb.

Mr Macintosh: I am sorry, but I fail to understand. There is clearly a difference of opinion between yourself and others who also disagree with the SCRO. Those others have completely different evidence and a completely different train of thought, but in that case there is just a difference of opinion between you. The SCRO's difference of opinion is markedly different because it is negligence. Is that right?

John MacLeod: That is not because of the dispute about whether there is one mark or two. It is because of the characteristics—

Mr Macintosh: Or whether it is a left thumb or a right thumb.

John MacLeod: Or whether it is a left thumb or a right thumb.

The Convener: Let me just be clear. I know that you said that, if it was McKie's print, it would have to be the left thumb, but what was your conclusion on the actual mark? Was it a right or a left thumb?

John MacLeod: Well, if it were Shirley McKie's, it would have to be a left thumb. I still think that it could be a right thumb or a left thumb.

Mr McFee: Could I just ask—

The Convener: I just wanted that point clarified.

Mr Macintosh: I have a number of questions to ask, and Mr McFee will have a chance to speak afterwards. If you just take a wee note, Mr McFee, I am sure that you can come back in.

Mr McFee: Try not to be so condescending.

Mr Macintosh: Mr MacLeod, in your conclusions, on page 15 of your 2004 report, you say:

"Given the quality of the mark, even if it had been made by Shirley McKie, and I do not believe that it was, it should not have been taken to court."

Does that mean that you think that it was too complex a mark to take to court—too difficult a mark to present as evidence?

John MacLeod: No. It is because there are insufficient characteristics in agreement and sequence.

Mr Macintosh: You are saying that it is too complex and too difficult a mark for them to have identified. The officers from the SCRO, with all their experience, say that they did identify 16 marks. That is why they took it to court. You obviously did not find 16 marks, but surely that is because it is too complex for you to identify, not because it is too complex for them to identify.

John MacLeod: That might be your opinion.

Mr Macintosh: I am asking for your opinion.

John MacLeod: I am happy that the mark was not made by Shirley McKie.

Mr Macintosh: I am not asking that. I am asking about the complexity of the mark. You are actually saying that it is too complex and that the SCRO officers should not have taken it to court because it was too complex to be taken to court. Is that right?

John MacLeod: Yes.

Mr Macintosh: However, no matter what the complexity of the mark, you were able to rule it out as Shirley McKie's.

John MacLeod: Yes.

Mr Macintosh: So it was not too complex for you, but it was too complex for the SCRO officers. Is that what you are saying?

John MacLeod: Well, it was not too complex for me to rule it out.

Mr Macintosh: Either it is too complex, in which case you should surely not offer an opinion on it, because it is too complex to identify; or it is not too complex, in which case it is perfectly okay for the SCRO to identify it and to offer an opinion on it, as you have done. Is it too complex or is it not too complex?

John MacLeod: It is not too complex.

Mr Macintosh: I would like to ask about a different matter that is related to the future of the fingerprint bureau. Although we are dwelling on Y7 and the Shirley McKie case, the committee's inquiry is actually into the future of the fingerprint service, which has been damaged by a number of allegations—not just by a difference of opinion over two marks, but by a supposed difference of opinion over five marks. One of those allegations is about the Sutherland case, which is recent. What is your involvement in the Sutherland case?

John MacLeod: Three or four weeks ago, Allan Bayle brought me part of an enlarged mark and part of a palm print form, and asked me to look at them. I looked and decided that it was not a good ident. There were insufficient details in sequence and agreement and there were two characteristics that were present on the mark, but not on the fingerprint form. If the Scottish system is the same as it used to be, 16 characteristics in agreement are required, with none in disagreement, but in that case there were two in disagreement.

After that, I had a phone call from David Mulhern, who invited me to go and see Bruce Grant, one of the head fingerprint people at New Scotland Yard. Bruce Grant showed me a

completely different mark and three sets of palm prints. The rest of the mark that was cropped was obviously made by Sutherland.

Mr Macintosh: And what conclusion did you draw from that?

John MacLeod: The mark had been made by Sutherland, but that was not the part that I had seen. As I understand it, Allan Bayle showed me what he had been given, which was completely different from what I saw at Bruce Grant's office.

Mr Macintosh: In other words, your first conclusions were wrong.

John MacLeod: I would not say that I was wrong, given what I saw the first time.

Mr Macintosh: I am sorry—was the mark made by Sutherland or not? Were you right or wrong?

John MacLeod: The part of the mark that I saw at Bruce Grant's office, which was about two thirds of it, was made by Sutherland, whereas the part that I saw in Allan Bayle's cropped enlargement contained insufficient detail for identification and showed two wrong characteristics. However, when one sees the whole print, it is clear that it was made by the same palm. When the print of the edge of the palm was superimposed, it showed a lot of movement—that was where the mistakes were made—but the print of the part of the palm called the carpal delta was a good ident with masses of characteristics and did not present any problems. However, that part was not shown in the enlargement that Allan Bayle showed me.

Mr Macintosh: Why did you—

The Convener: Mr Macintosh, could you please make this your final question?

Mr Macintosh: Convener, this is crucial. The issue is not just Mr MacLeod's expertise in general; the fact is that experts such as Mr MacLeod have been used to attack the Scottish fingerprint service. If we are ever to establish confidence in officers and to give them the respect to which they are entitled, it is only fair that people who have made misidentifications own up to them.

In this case, Mr MacLeod, you identified the print and then allowed your name to be used in a series of very damaging allegations, which has led to calls for the closure of the SCRO fingerprint office. Is that a fitting position for a member of the Council for the Registration of Forensic Practitioners to find himself in?

John MacLeod: I regret that very much.

Mr Macintosh: I am glad to hear that. Convener, may I ask a couple of other questions?

The Convener: On what subject?

Mr Macintosh: I want to find out Mr MacLeod's knowledge of the McKie case before 2004, when

the Scottish Executive asked him to compile his report. Clearly, the Executive presented him with a lot of evidence.

The Convener: I will allow you two more questions. However, you should bear it in mind that we have already asked a series of questions on the matter and you should not duplicate any questions that have already been asked.

Mr Macintosh: I will not duplicate any questions, convener. Mr MacLeod, we already know the material that you worked with, but I wonder whether you had heard of the McKie case in any shape or form before the Scottish Executive approached you in 2004.

John MacLeod: Oh, yes.

Mr Macintosh: At that point, did you work with Mr Bayle, Mr Cook or any of the other people who are, in my opinion, members of the McKie campaign?

John MacLeod: I had never met or spoken to Mr Bayle. I regularly meet Mr Cook, because he sometimes uses the laboratory facilities. Who else did you mention?

Mr Macintosh: Mr Ashbaugh is another one. However, what knowledge did you have of the McKie case before 2004? Had you seen any evidence on the McKie campaign website or any material that it was circulating?

John MacLeod: I remember a casual meeting with Peter Swann, at which he said that the ident was good. I cannot remember when that meeting was, but that is the only incident that I can recall before the Executive got in touch.

Mr Macintosh: But you were aware that this was a high profile case.

John MacLeod: Very much so.

Mr Macintosh: That is fine.

The Convener: You concluded that there was professional negligence in this case. Did the Scottish Executive ask you to make a judgment on the matter or did you choose to make such a judgment because of your findings?

John MacLeod: I was asked to do so.

The Convener: So you were asked to judge whether there had been professional negligence.

John MacLeod: Yes.

The Convener: I realise that members have other questions but, before anyone jumps in, I remind the committee that we still have to ask about training and processes. I will be able to allocate only 10 minutes for those questions.

I will allow members one brief supplementary. It would be extremely helpful if members could focus their questions, as I want to get Mr MacLeod's

opinion on where we go from here and we have another witness still to hear from.

Mr McFee: I will be brief, convener. Mr Macintosh asked a barrage of questions on the subject of due care and professional negligence. In your view, Mr MacLeod, do the number of differences between the latent and Shirley McKie's print mean that the line was crossed on the issue of due care or professional negligence, or however you wish to describe it? Was that one reason why the case should not have gone to court?

John MacLeod: I think so.

Margaret Mitchell: In paragraph 102 on page 28 of your 2005 report, you say:

"There are two methods used to identify finger marks. The Holistic Approach and the Empirical Approach. The former is of fairly recent origin ... and is probably irrelevant to this case."

However, in paragraph 103, you talk about the holistic approach. Is that a mistake?

John MacLeod: Probably.

Margaret Mitchell: So you meant to refer to the latter approach?

John MacLeod: Yes.

Margaret Mitchell: After your first report, you concluded that there had not been reasonable care. Did you use a stronger term after completing your second report?

John MacLeod: I do not recall.

Margaret Mitchell: Did you refer to professional misconduct?

John MacLeod: I do not recall. It will be in the report.

Margaret Mitchell: Is it a numbers game? The Executive told you to go back to the print to see how many more differences you could find. Are you saying that if there are five differences, there has not been reasonable care, whereas if there are more is it more likely that there has been professional misconduct?

John MacLeod: I would have thought so.

Margaret Mitchell: So that may be one reason why the Executive directed you to see what else you could find.

John MacLeod: I think so.

The Convener: We move to the issue of training.

Mr McFee: My question is not really about training. I want to establish how difficult it is in the fingerprint expert world for someone to admit a mistake.

John MacLeod: Not at all. It should not be difficult.

Mr McFee: Is that the reality?

John MacLeod: It should be. When I find mistakes that fingerprint bureaux have made, which is very rare, they are admitted immediately.

The Convener: I appreciate the fact that you have said several times that you have not been able to interview the SCRO officers in person. I would be interested to know whether you have any advice for the committee, when it comes to write its report, on what we should say about processes in the SCRO. Can you offer us any advice?

John MacLeod: I do not know what the Executive has given you in respect of my coloured mark-ups. If you have them, I suggest that you invite the SCRO experts to look at them and to tear them to shreds, if they can.

The Convener: We do not have those.

John MacLeod: That is what I was afraid of.

The Convener: Is it possible for us to have them?

John MacLeod: As you know, there has been a lot of argument about the reports being made available.

The Convener: Do you have any difficulty with the committee seeing them? We have been given presentations by everyone else involved.

John MacLeod: I have no problem with it, but the Executive seems to be very reticent about releasing the reports.

The Convener: If we told the Executive that we would like to see the colour presentations that you prepared in relation to the case, would that be an issue for you?

John MacLeod: I have no problem with that.

The Convener: Do you have anything further to say on the issue of process? We will re-examine the matter.

John MacLeod: My company has a confidentiality agreement with all its clients. The Scottish Executive is a client—it is as simple as that. Unless it says that I can talk to someone about the case, I cannot.

The Convener: In your opinion, you cannot say anything about what processes in the SCRO should change, given the report that you have just talked about, which concludes that there has been professional negligence.

12:00

John MacLeod: I think that this is just a one-off or a two-off.

The Convener: Sorry?

John MacLeod: I think that this is just a one-off or a two-off—it is not a regular happening. It is not a regular event by any stretch of the imagination.

Mike Pringle: I want to go back to the coloured prints that you talked about. In your 2005 report, there are quite a lot of badly reproduced pictures, which are a complete waste of time—completely useless. They do not tell us anything. Are they reproductions from what you call the coloured prints?

John MacLeod: Yes.

Mike Pringle: So what we really need are the originals.

John MacLeod: That is what you need. These are useless.

Mike Pringle: Absolutely useless. We need to ask the Executive if it can produce coloured reports with these prints in colour, so that we can see them properly.

John MacLeod: Yes. It is the outlines, the arrows and the lettering that are coloured, not the prints. These are very explanatory as to where the discrepancies are.

Mike Pringle: I am looking at number 14 in production 189 on page 17 of your 2005 report. You talk about

“a bifurcation down ward towards 4 o'clock”

and state:

“There is no such characteristic in this location in the mark. ... This is a difference.”

Each time you say, “This is a difference”, except on one occasion, when you state:

“Characteristic number 8 is the one characteristic that could be common.”

You found one characteristic that might be common, but all the rest are not.

John MacLeod: Yes. That is right.

Mike Pringle: We need to see the coloured prints.

John MacLeod: You do.

Mike Pringle: You are suggesting that, if those were given to the SCRO to examine, it might come to a different conclusion.

John MacLeod: It might.

Mike Pringle: You are right. It might.

Let me ask you about the future. The convener has talked about where we go from here. It has been suggested that the fingerprint service in Scotland should be merged under one big head. Another suggestion has been made by some of the bureaux outwith Glasgow—you will be aware that there is now a rift as wide as the grand

canyon between the unit in Glasgow and the other three units. Do you have any views on whether the bureaux should be kept independent?

We have also heard that there has never been a fingerprint expert—in inverted commas—in charge of the SCRO in Glasgow. Mr McInnes, who is there now, came from the Ford motor company with absolutely no experience of fingerprints, although perhaps good experience of management. In your view, what is the way forward?

John MacLeod: I think that there should be a fingerprint expert at the head of the service, without a doubt. One of the things that came out of the inquiry was the suggestion that a genuine mistake was made. Well, that is not the case. The four experts do not stand by the suggestion that there was a genuine mistake at all. If their boss says that there was a genuine mistake, I think that there is something far wrong. His not being a fingerprint expert puts everybody in a difficult position.

Mike Pringle: So, you think that Mr Ferry, who was in charge at that time, would not have had enough knowledge to be able to make rational, reasonable decisions.

John MacLeod: I do not think so.

Mike Pringle: What about the future of the bureaux? Do you think that bringing them all under one head would be a good idea?

John MacLeod: It will be very difficult for the SCRO to be accepted by the three other bureaux.

Mike Pringle: You think that that is something that the committee will have to think carefully about.

John MacLeod: I think so.

Mike Pringle: Is it your view that the bureaux should be kept separate but under the one manager at the top, who should have had fingerprint expertise at some point in his career?

John MacLeod: I think that they should be kept separate, possibly with one hierarchy.

Mike Pringle: I have a final question on the management of the fingerprint service. We have heard in evidence that it would be extremely difficult to get a fingerprint expert to take on the role of managing the Scottish fingerprint bureaux. Do you think that that would be difficult?

John MacLeod: It might be difficult to get someone who was acceptable to all the bureaux.

Mike Pringle: Sorry, but that was not really my question. Let us ignore that issue. I accept that that could be extremely difficult and that it will take somebody with a lot of character to bring the

service back together, although we have to do that—that must be the end product.

We have heard evidence that it has been almost impossible to recruit in the past. The previous three, or possibly even four, managers of the SCRO fingerprint bureau in Glasgow, who were ultimately in charge, did not have fingerprint expertise. We have heard from you, from Mr Swann, Mr Zeelenberg and all sorts of experts from all over the world. I presume that all those people could manage the fingerprint bureaux in Scotland. There must be somebody out there who could do it, but we have heard that it has been almost impossible to get anybody.

John MacLeod: I imagine that it would be difficult.

Mike Pringle: Do you mean that it would be difficult in the future or that it has been difficult in the past?

John MacLeod: Both.

Mike Pringle: Okay, thank you.

The Convener: I am interested in your view that what happened was a one-off or a two-off. If you write it off as a one-off, how many changes need to be made? Arguably, we do not need to make many changes.

John MacLeod: I do not think so.

Mr Macintosh: Do you have any knowledge of the Mark Sinclair case?

John MacLeod: I do not think so.

Stewart Stevenson: I have a general, rather than a specific point, which relates to my experience. When I was in computers, we had a cupboard in which, from 1972, we kept the documentation of all our most spectacular mistakes so that we could learn anew from them and so that others who joined our department could do the same. To what extent does the fingerprint service in its generality study intensively the mistakes that are made and seek to learn from them? To what extent should it do so? I have a quotation that might help to guide us:

"Friends reinforce us in our habits. Only critics force change."

Would you care to comment?

John MacLeod: It is fair to say that in the past very little record was kept of misidentifications. Therefore, very few cases of misidentification came to notice; probably not more than one a year in the whole of the UK. That is out of about one million IDs a year. I am just speaking off the top of my head, but the number of misidentifications is minuscule. The trouble is that they should not happen at all.

I think that there are procedures to record misidentifications nowadays.

Stewart Stevenson: Has information about how misidentifications came to be made—I mean, of course, to the point of being relied on although clearly there will be internal disputes—not been used in the fingerprint business generally to a sufficient extent to make practitioners aware that it is possible to make mistakes, to look at when mistakes are made and therefore to help them understand their role in not repeating the mistakes made by others?

John MacLeod: I think that that process is being looked at. I am on the CRFP and I saw a case the other day in which somebody had made a wrong identification with fairly just cause and was quite open about it, but it did not get as far as court. The business is much more open now than it used to be. Twenty or 30 years ago, the fingerprint business was a very closed shop.

The Convener: One gets the impression from the inquiry so far that if we put the McKie issue to one side, some professional arguments are still going on in the fingerprint world. Is that fair?

John MacLeod: I do not think that there are very many.

The Convener: That concludes our questions to you. I thank you for appearing before the committee and answering detailed questions. As I said, we will probably ask the Scottish Executive whether we can see your presentation, which we think would be helpful. We understand that legal issues arise, but you do not seem to have any objection to our doing that. We simply want to get more information. We have had presentations from other experts, so it would be helpful to have yours.

John MacLeod: I have no objection to that.

The Convener: We will move straight on to our second witness, who is Mike Thompson, the head of the national fingerprint training centre in Durham. We are delighted to have him with us. We have several questions for him.

Mike Pringle: Mr Thompson, when were you first asked to review the case?

Mike Thompson (Centrex National Training College): We were requested to review the marks in the case a number of years ago, in 2000.

Mike Pringle: How was the review carried out? What was the process? Did you go to Glasgow to examine the marks, as Mr MacLeod did? How many people examined the marks?

Mike Thompson: The original request to the director of the national training centre to review the marks came from the procurator fiscal's office.

Mike Pringle: Was that a request from Kilmarnock or from the Crown Office in Edinburgh?

Mike Thompson: I believe that the request was from the Crown Office in Edinburgh.

Mike Pringle: Right. I just wanted to get that on the record.

Mike Thompson: I am sure that that can be clarified if I am wrong, but I am fairly certain that the request was from the Crown Office in Edinburgh.

We did not come to Scotland to view the marks; the marks were sent to us at the national training centre, which is based at Durham police headquarters. The marks that were given to us were photographic copies of the negative and the original tenprint forms that were used in the case. There was a large envelope full of the tenprint forms and crime scene marks, which we reviewed. We identified some of them, but we were unable to identify others.

Mike Pringle: How many people conducted that work?

Mike Thompson: The work was done by the then head of national fingerprint training, who is a gentleman by the name of Jeff Sheppard, by me and by a colleague called Mr Grigg.

Mike Pringle: What was your conclusion?

Mike Thompson: Our conclusion was that mark Y7, which was on the doorframe, was not that of Shirley McKie.

Mike Pringle: You mentioned that three people were involved. Do you remember who examined the material first?

Mike Thompson: I cannot remember the order, but the marks were examined by Mr Sheppard, Mr Grigg and me.

Mike Pringle: What was the process? One possibility is that you got the big brown envelope, examined the material and came to a conclusion and then passed on the material to the next person, who did the same, and then you all compared your conclusions at the end. Alternatively, you might have known what the others' conclusions were during the process. We have heard information that the SCRO officers in Glasgow knew what was going on as they conducted the process. Did you?

Mike Thompson: We carried out the examination independently. I am certain that Mr Shepherd did it first and I think that I received the marks subsequently so that I could make a personal comparison.

Mike Pringle: At that time, did the training centre in Durham train Scottish fingerprint people? Does that happen now?

Mike Thompson: In 2000, students from Scotland were attending our advanced fingerprint course. I cannot tell you how many students attended, but I could probably find that information for you.

12:15

Mike Pringle: I am just asking about the general situation. Is the advanced fingerprint course run anywhere else?

Mike Thompson: In 2000, it was being run at the Metropolitan police's training school at Hendon, in north London—it is still run there.

Mike Pringle: Is it likely that Scottish people would attend that course?

Mike Thompson: I would expect Scottish students to come to us.

Mike Pringle: So a person who said that they had passed the advanced fingerprint course would have been trained in Durham.

Mike Thompson: Yes.

The Convener: I have not had time to read your report. You said that the material probably came from the Crown Office. What were the originals—were they Terry Kent's photographs?

Mike Thompson: I do not know.

The Convener: You heard Mr MacLeod talk at length about the number of dissimilarities that he found in the mark. Do you concur with his findings?

Mike Thompson: I would not want to say categorically that I agree with his numbers. It is a long time since I saw the mark, but I recall that when I carried out the comparison I found a lot of dissimilarities.

The Convener: Does it make a difference to you that the print was an elimination print?

Mike Thompson: None whatever.

The Convener: You said to Mr Pringle that four people from the Durham centre looked at the print—

Mike Thompson: I said that three people looked at the print.

The Convener: Did each of you know what you were examining?

Mike Thompson: Yes, we did.

The Convener: Was Jeffrey Sheppard the first examiner, followed by you?

Mike Thompson: Yes. Mr Grigg also examined the mark.

The Convener: You knew that Mr Sheppard had examined the mark before you examined it. Did you know what conclusion he had come to?

Mike Thompson: I knew what his conclusion was, but it did not cloud my decision in any way.

The Convener: Can you recall whether you concluded in your report that the mark was a left thumb print or a right thumb print?

Mike Thompson: I honestly cannot remember what I said in the report. The report was collected from us in 2000; I have not seen a copy of it since.

The Convener: If you have not seen the material since 2000, does that mean that you cannot answer detailed questions on the mark?

Mike Thompson: I am speaking from my recollection of what happened in 2000.

The Convener: We have heard different opinions on the mark, so it would be interesting to hear Durham's view.

Mr McFee: My question might be difficult for Mr Thompson to answer if he has not read his report for several years—incidentally, there is a page missing from all the copies of the report. I do not know why.

In paragraph 2.19, you said:

"Therefore even though an attempt was made to assimilate the two target groups there are significant differences".

What is a target group and why is it dangerous to try to assimilate such groups?

Mike Thompson: A target group is a group of features on ridges that is used, first, as a locus to orientate oneself in the mark and then, to try to find the same group in the tenprints, as the starting point for comparison.

Mr McFee: What is involved if you try to assimilate two groups that are not in the same position? Can you do that subconsciously?

Mike Thompson: Subconsciously?

Mr McFee: I mean without thinking as you are doing it. I suppose what I am getting at is this: when you look at a print and you see what you think are certain features from the tenprint, how much of the process of making your mind up is driven by a mindset or by a belief that you have an identification?

Mike Thompson: The analysis starts with gathering as much information as possible about the mark at the crime scene. With experience, one becomes familiar with ridge flow—the way ridges continue on their path in various fingerprint patterns. We are looking not only for the family—the arch, loop or whorl—but for other information on the type of arch, loop or whorl. In the holistic analysis, that used to be referred to as "first-level detail".

Once we are aware that we have—let us say for argument's sake—a loop sloping to the right with a

count of seven, that information needs to be supported. People in this room probably have loops sloping to the right with a similar count, so we need to go to the next stage, which is to consider what the ridges do. Do they form a ridge ending, or do they form a bifurcation? Is there a group of them in a particular part of the mark that we could use to start the next level of comparison? That level used to be called "second-level detail"; it entails looking at the features of the ridges. All such information has to be considered before we even start looking for a match.

A crime scene mark will usually be unclear. It can be on a variety of surfaces—a smooth, non-porous surface such as glass, or a grained surface such as wood. It might have been made with differing amounts of pressure. It might have been made in different media such as blood or sweat—which is the natural latent mark—or paint. It might be a three-dimensional image. Several factors have to be taken into account, in addition to the way in which we analyse the ridge detail itself.

Ridge features are minute—it does not take a lot of sweat or pressure to make what would be a clearly defined ridge ending on a tenprint form appear like a bifurcation. Sweat or pressure can create a blockage in a furrow that appears to make two ridges join. We have to be able to explain such differences. On a crystal-clear tenprint form, a ridge ending is obvious, but why does such a feature look like a bifurcation on a crime scene mark? It can be because of the very nature of a crime scene mark.

As has been rightly said, we use a non-numeric standard in England and Wales. We look for 100 per cent of the information to be correct on the crime scene mark and on the tenprint form. We start by establishing, for example, that it is a loop; then we say that it is a loop to the right; then we say that the count is the same. We also say that our target group is in agreement. However, it is also crucial to be able to say, "None in disagreement." The relationship between ridge endings and bifurcations on a crime scene mark has to fall within the same set of parameters on the tenprint form—unless a difference can be explained.

Why does a feature look like a bifurcation on a crime scene mark when, on the tenprint form, that particular feature on that particular ridge is clearly a ridge ending? That can come down to a simple difference in clarity between the two images. Therefore, if features fall into agreement, the fact that one feature looks like a ridge ending on one image and like a bifurcation on another does not make any difference to the overall picture. We no longer stop at 16 points; we look at all the information. We start from the pattern and then, if necessary, go on to the next level of detail and

consider the outline of ridges and the positioning of sweat pores—which is also unique.

Mr McFee: Thinking back to mark Y7, where in your view did the misidentification occur? Was it in what you referred to as first-level detail?

Mike Thompson: As I recollect—I do not have an image here—the mark is the top part of a digit. The patterned area, which forms part of that first level of detail that we would see, is not greatly visible on the mark, so there is no clear determination that it is of a particular pattern. It is certainly not an arch pattern; it is probably a whorl pattern.

Mr McFee: Is it a complex mark? I appreciate that you are going back five years.

Mike Thompson: The copy that has just been handed to me is obviously an enlargement of that mark. It shows some ridge flow and areas that are less clear than others. It shows an area where there appear to be some diagonal stresses in a small area running across the mark. It has been laid down with a variable amount of pressure. It is not a straightforward rolled tenprint image or plain tenprint image.

Mr McFee: One individual suggested that the tip of the thumb had been rotated 66° anticlockwise.

Mike Thompson: I would not want to comment on that. I do not know how you can work out that it is exactly 66°. There is some distortion of the ridge flow, but I could not give a percentage.

Mr McFee: How difficult would it be to rotate the tip of one's own thumb 66° without smudging and crossing over?

Mike Thompson: Do you mean while it is in contact with a surface?

Mr McFee: Well, I wisnae there. [*Laughter.*]

Mike Thompson: If your finger is in contact with a surface and you rotate it by 66°, it would not take too much understanding to appreciate that the print would be smudged.

The Convener: There are a few more questions on the mark, but we are running out of time and I want to move on to issues about presentation of court evidence.

Mr Macintosh: Earlier, Mr MacLeod suggested that it could be a double-touch mark. In paragraph 2.4 of your report you say:

"The mark would appear to be made due to a single contact and not as a 'double touch' mark, as suggested by the Scottish experts."

You go on to say that that "in itself is significant." Mr MacLeod clearly thinks that it could be a double-touch mark. How significant is the fact that that is a different opinion from the so-called McKie experts?

Mike Thompson: Do you mean as to whether it is a double touch or a single touch?

Mr Macintosh: Yes.

Mike Thompson: If what is being suggested is that it is two totally different images, any such suggestion—or any situation in which experts disagree—is significant and needs to be taken into account.

Mr Macintosh: Early in your report you flagged up this evidence as being crucial in determining why the Scottish experts got it wrong, but another expert says that, on this evidence, they did not get it wrong. Were you right or is he right?

Mike Thompson: I believe that it is not a double-touch mark.

Mr Macintosh: Before you were called in to the case in 2000, what knowledge did you and others at Durham have of the McKie case?

12:30

Mike Thompson: It is fair to say that there was knowledge that there had been a problem with a case in Scotland, but I cannot recall to what extent it was known about. There was knowledge that a mistake—in inverted commas—had been made.

Mr Macintosh: Were any courses run in Durham in 1999 that employed David Ashbaugh and Allan Bayle to lecture on the print?

Mike Thompson: I honestly cannot recollect that. I would need to check our records. Any such courses certainly have not stuck in my memory.

Mr Macintosh: I believe that at Durham in 1999 David Ashbaugh presented such a course, assisted by Allan Bayle and Jeff Sheppard. Am I right in thinking that Jeff Sheppard co-wrote your report?

Mike Thompson: Yes.

Mr Macintosh: During their presentation, they handed out copies of the Y7 fingerprint and referred to it as "Pat's print". Do you know which Pat, other than Pat Wertheim, to whom that could refer?

Mike Thompson: No.

Mr Macintosh: On behalf of the committee, I ask you to check with Mr Sheppard whether a course along those lines was run in 1999. If so, what does that say about the knowledge that Mr Sheppard brought to the case in 2000?

Mike Thompson: If it was talked about in 1999—

Mr Macintosh: He was lecturing on it in 1999.

Mike Thompson: That means that he was certainly aware of the case when the comparison in the report was written in 2000.

Mr Macintosh: Apparently, in 1999 Mr Sheppard was handing out material to students who were from offices around the country, claiming that the Y7 print was a misidentification. What does that say about his attitude when he approached the mark in 2000?

Mike Thompson: It suggests that he had already made that decision.

Margaret Mitchell: Good afternoon, Mr Thompson. Can you be a little more precise about when in 2000 you were approached by the Crown Office to look at the case?

Mike Thompson: I do not know exactly when I was approached. The report says June 2001.

Margaret Mitchell: But you do not know exactly when you were asked to look at the case.

Mike Thompson: No.

Margaret Mitchell: So you would not know whether it was after the "Frontline Scotland" programme in January 2000.

Mike Thompson: I do not know whether it was. If it was in 2000, and the programme was in January, that does not leave much time to produce the report, so I presume that it was after the programme.

Margaret Mitchell: What exactly were you asked to look at? Were you asked to look just at the mark Y7 and the other mark?

Mike Thompson: No—we had to analyse and compare a number of marks.

Margaret Mitchell: Is it your experience that, when there is a disagreement, there is often a discussion to try to iron out misunderstandings? Would that be the training procedure?

Mike Thompson: Yes. It is good practice to get to the bottom of things and to learn from mistakes that have been made. I am not talking about a mistake in this case, but about mistakes in general. We should learn from events that have happened in the past, to ensure that they do not recur in the future. That is the crucial element of this inquiry.

Margaret Mitchell: Did you ever have an opportunity to speak to the four experts?

Mike Thompson: I have never spoken to them.

Margaret Mitchell: Would you have liked to do that?

Mike Thompson: Yes. That would certainly have been useful.

Margaret Mitchell: Can you comment on the use of the acetate sheets of which Mr Zeelenberg made considerable use and on which he relied heavily? In your opinion, how does that stand vis-

à-vis making an identification with the human eye and the experience and training of fingerprint experts?

Mike Thompson: It is not common practice to use such acetates. When I was an operational fingerprint expert, we worked with actual-size photographs. If we were required to prepare enlargements for court, they were produced using an acetate overlay. Drawing on them tends to create subjectivity, rather than objectivity.

I realise, however, why people would want to use acetates, particularly in this case. They can be used to highlight ridge flows for members of the jury or a committee. Continuous ridges, bifurcations or ridge endings can be pointed out. I see the value of using them for demonstration purposes, but it is common practice in English and Welsh fingerprint bureaux to use much clearer visual aids in court to demonstrate the identification process. The particular mark will not necessarily be used in that process. Obviously, the first duty of the expert is to the court, which should understand how the identification process works. Perhaps I should have brought with me enlargements of the different levels of detail that we look for. As I have said, a feature that is not clear on the mark from the crime scene can appear clearer on the tenprint form.

Margaret Mitchell: In other words, it is helpful for us to look at acetates, but we are clearly not experts and we must rely on discussion, the human eye and the experience of the experts to identify fingerprints and get to the root of the matter.

Mike Thompson: Such a process allows us to study ridge details underneath, but once a line is drawn, one will tend to see what one wants to see. Fingerprint identification is about recognising shapes and patterns. A psychometric-type exercise will go on in a person's brain. Such analysis is like that which happens when we look at the image of a Necker cube, which is a two-dimensional picture that represents a cube. The first time one looks at that image, a circle will appear on the front face of the cube, but it will then appear that one is looking down into the cube at the circle. Another example is the picture in which one can see an image of either a young lady's face or an old lady's face. The lines in such images do not change—the important thing is how they are interpreted. Every fingerprint officer in the United Kingdom is trained in the same way; we look for and analyse unique features.

Margaret Mitchell: Okay. That was helpful.

Mrs Mulligan: I want to ask about your training facility and to put its operations in context. Did you provide services to any or all of the fingerprint bureaux in 1997?

Mike Thompson: In 1997, overseas forces and all the English and Welsh forces subscribed to fingerprint courses at the national training centre, and I believe that Scottish students attended the advanced course. However, that is going back a long time and—

Mrs Mulligan: What were the differences between the advanced course and the other courses? What other courses were there?

Mike Thompson: I have been at the college for more than 10 years—I joined national fingerprint training in 1996. There were three courses when I joined. There was a foundation course for new members of staff in fingerprint bureaux, which was followed about 18 months to two years later by the intermediate course, which took trainees on to the next level and prepared them for the advanced stage about 18 months to two years after that. The approaches of bureaux tended to vary, but in the past, a person had to have been in a bureau for five years before they could attend an advanced course. The first course lasted for four weeks and the intermediate and advanced courses lasted for three weeks each.

As England and Wales moved towards a non-numeric standard, various committees—including the evidential standard committee—were set up to look at the fingerprint service in those countries. People have asked what will replace the 16-point standard, which the fingerprint service has relied on for nigh on 100 years, if we are going to do away with it. What procedures will be in place in bureaux to ensure that the courts are still convinced of the probative value of fingerprint evidence and can rely on it?

The various committees that were set up examined procedures, standards and training within bureaux. Training was certainly a big issue. During that time, there was commonality in the training that was done by us and by the Metropolitan police—which is still the other training provider, although wholly for the Metropolitan police, it must be said—and standards were applied uniformly across the board. Evaluation of the training led to a new option. In addition to the normal three courses, forces were offered an option in which, after the foundation course, a designated and trained expert in the bureau could train the student through work-based learning. They were required to produce five modules of work and there was a mixture of self-assessment and assessment by colleagues at the national training centre. That approach offered an alternative route.

The topics on the intermediate course were the same as the topics on the work-based learning that was done within the bureau. The assessment was also the same. The exams on the intermediate course were the same as the exams

that students on the external assessment took when they completed the work-based learning. It must be said that there is a great deal of value in the work-based learning. There is value in courses, but there is also value in a person's going back to basics, carrying out research and getting an in-depth appreciation of what they are doing.

On a three-week course, it is difficult to give someone sufficient hands-on experience of working in a fingerprint laboratory, where we use chemical techniques to develop fingerprints rather than aluminium powder or black powder, which is used at crime scenes. Neither, in a three-week course, is it possible to give students a long enough attachment to a scene of crime officer—or crime scene investigator, as they are called now—so that they also appreciate that side of the operation. The operation is about teamwork, at the end of the day.

In evaluating again the quality of the work that was undertaken by students on the intermediate modular path—that included all Scottish students, I hasten to add—I saw some excellent work. The opportunity to develop work-based learning should not be missed.

We now have the non-numeric standard operating in England and Wales, but the evaluation of training and of bureaux continues. The evidential standard committee became the national fingerprint board, which is chaired by an Association of Chief Police Officers officer—the chief constable of Cumbria, Mike Baxter. The board has various sub-committees that examine aspects of the work that goes on in bureaux, including audit, transparency, and procedures. Procedure manuals are now in place in English and Welsh fingerprint bureaux, and personnel and training are big areas of continuing work.

Mrs Mulligan: When did that change start to happen?

Mike Thompson: Do you mean the change in training?

Mrs Mulligan: Yes.

Mike Thompson: It started before the non-numeric standard was introduced. We started to look at—

Mrs Mulligan: Can you give us a date?

12:45

Mike Thompson: The non-numeric standard came in in 2001 but we were already considering the training process prior to that. There is now only one training route for fingerprint officers in the UK, which is a form of blended learning that adds the core knowledge that we provide on our taught courses to the modular training that is provided in

the bureaux. Usefully, everyone—regardless of whether they come from one of the 42 forces in England and Wales or one of the eight forces in Scotland—is sent the same message. On the foundation course, trainee officers acquire the core knowledge, which comprises the theory behind the practice of the analysis, comparison, evaluation and verification of fingerprints. They develop an understanding of that theory and get a great deal of practice in applying it. As part of that work, they learn how to analyse crime scene marks before they are put on to an IDENT1 system. Trainees' coursework is assessed and they take final exams in theoretical and practical competence, after which they go back to their bureaux to undertake a series of portfolios.

One of the portfolios continues the analysis and comparison of crime scene marks. At every fingerprint bureau in the country, the bureau trainer provides continuing mentoring and guidance to every fingerprint trainee. Trainees complete a module on the recovery of friction ridge detail from dead bodies and crime scenes and in the chemical laboratory. That is a work-based evidence portfolio that is assessed by the bureau trainer who mentors them through the process, but which is externally validated by us. We will come in and dip sample work that has been completed by particular trainees.

I realise that my answer is a bit long-winded, but I am explaining the complete package so that you are clear about the process that every fingerprint expert goes through. Trainees come back to us for an intermediate course on which their work-based knowledge and practical competence are tested. We continue to develop their analysis and comparison competence by giving them more challenging marks to assess. Before they proceed to the next stage, they must successfully complete those assessments.

The final portfolio—which is completed back at base—is training in the preparation and presentation of fingerprint evidence. That work prepares them for their role as budding experts in the verification of identifications that have been made by colleagues further down the line. They have to understand what their role and responsibility as part of the verification process will be when they have completed the advanced course. Everyone needs to ensure that any identification that is made by a bureau is 100 per cent correct. Before they come on the advanced course, trainees complete that portfolio by performing in mock court scenarios, which are videoed in the bureaux and assessed by the trainers.

Mrs Mulligan: That is the part that I wanted to ask you about—the presentation of evidence to the court. There has been a suggestion that there

may have been a problem with the presentation of the evidence on mark Y7. Did you get to see the exhibits that the SCRO produced for the court case?

Mike Thompson: Are you referring to the court case that took place in 2000?

Mrs Mulligan: Yes.

Mike Thompson: I believe that I got to see the exhibits that were used in the original case.

Mrs Mulligan: Do you want to comment on them? Was there anything unusual about them?

Mike Thompson: As far as I recollect, I was certainly not in agreement with the features that were highlighted.

Mrs Mulligan: Okay. What is best practice on the production of exhibits for a court case?

Mike Thompson: Technology has moved on. Nowadays, even PowerPoint presentations are not uncommon as part of court presentations. It is possible to use various visual aids to assist the court. For example, clear examples of the three family types—arch, loop and whorl—can be provided to illustrate to which family the crime scene mark belongs. Each of those family types breaks down into different family members—for example, a loop might be a plain loop to the right and there are particular types of whorls.

That level of understanding needs to be there to start with before we move on to the next level of detail, which is where we start to explain to the court what the other ridge features are. Ridges are not continuous because there are breaks and divisions, which we use as unique features to demonstrate the identification—such features are formed in the womb and are unique.

Mrs Mulligan: Even if a print was complex, would you expect an expert to be able to explain it to a court so that the court could understand sufficiently the differences and similarities in what was being presented?

Mike Thompson: I would expect any expert to be able to explain to the satisfaction of the court the nature of a crime scene mark that is before the court. That is a fundamental requirement of any expert.

Mrs Mulligan: Is that quite an important part of your training process?

Mike Thompson: Absolutely, yes.

Mrs Mulligan: How can there be such a difference between experts' presentations of this case? You said that you were unhappy with the presentation in the court case. How could experts who are trained and experienced in fingerprint identification arrive at such different outcomes?

Mike Thompson: Hand on heart, I really do not know. All I know is that in the analysis that I carried out for myself, there was no doubt that it is not Shirley McKie's left thumbprint. Other people come to a different conclusion, which might come back to what I was talking about before—do you see the young woman's face or the old lady's face? The lines do not change; it is about the perception of the individual.

Mrs Mulligan: Have you experienced that in the 10 years that you have been at the college? Have you heard of such a situation?

Mike Thompson: We explain to students, particularly those on the foundation course, that they will make mistakes. They cannot expect to go through the four weeks identifying everything, because they will not. They will misinterpret images or they will have too narrow a view of what they think they are looking for and they will not have a wide enough perspective to include the candidate that left the mark. We tell the students on the foundation course that that will happen, and it does. Some students fail our intermediate and advanced courses as well as the foundation course. We have uniform criteria that we apply across the board to all the different levels of expectation of students. We make it clear that if there are mistakes, we will sit down with the student and ask what they were looking for and what they saw. We ask, "Did you see this? Did you notice that that was happening? Can you explain why that looks like a ridge ending on the crime scene mark but like a bifurcation on the temporary form?" The students have to go through the process and get formative feedback so that they learn from their mistakes. That happens on the intermediate course as well.

The Convener: There is a suggestion that a culture or a mindset might exist in a bureau. Do your training courses deal with that possibility?

Mike Thompson: The benefit of training courses is that they mix individuals from different bureaux who share ideas and find out how people work in other bureaux. There is a manual of guidance, but in different geographical locations, there might be various ways of working, not on identification but certainly with regard to the procedures and how work comes into a bureau, for example. It is always useful to share new and different ideas, take them back to the different bureaux and feed them back into the process. We try to encourage openness among the students and among ourselves.

The Convener: I just want to be clear. Does that mean that the training centre recognises that mindset and culture are issues within fingerprint bureaux or not?

Mike Thompson: The mindset must be positive for the identification of fingerprints. If I have a

fingerprint in front of me and a collection of tenprint forms with which to compare it, it is my job to find it. That is the mindset that exists in bureaux—or that should exist. In the bureau in which I worked, we used to have a saying, "If he's in, he's out." If the fingerprint is in the collection, it is my job to identify it. No matter the quality of the mark, if it is there in the form to be identified, it is my job to identify it.

The Convener: Yes, but what I am specifically driving at is the fact that other witnesses and Mr Zeelenberg's report have addressed the question of mindset and culture. Are you saying that you do not address that in the training and that it is not an issue for the training centre?

Mike Thompson: It is an issue that we must be open about. We need to ensure that—

The Convener: But do you—

Mike Thompson: The answer is yes.

The Convener: In your training, do you or do you not address the question of mindset and culture?

Mike Thompson: Yes, we do.

The Convener: So there is something in your training courses that would deal with the question of mindset and culture, which you could point out to me. If there is an expert out there arguing that bureaux all over the world can be prone to the culture or mindset in which people just agree to an analysis because the person in front of them has done so, I would have thought that the training centre would address that issue. I just want to know whether you do or do not address it.

Mike Thompson: We do so in the way that we encourage students to analyse the mark that they have. Even if they take a mark to their bureau trainer, as part of their training process, to ask whether they have analysed it correctly, they can challenge what their trainer says. They can say, "Why do you say that? I analyse it this way. Am I missing something?" We encourage openness because we want to get rid of any negative mindsets, which I think are possibly more destructive, and encourage the positive openness of, "Okay, show me what you see because I see it this way."

That is in the foundation course. We encourage students to write down what they analyse so that they can refer to it in future.

Stewart Stevenson: What training do managers get?

Mike Thompson: Apart from the normal competence courses, which are the foundation course, the evidential portfolios, and the intermediate and advanced courses, then—

Stewart Stevenson: Sorry, can I just stop you there? Are you saying that, as a precursor, you would expect a manager of fingerprint professionals to have undertaken the training that the professionals undertake?

Mike Thompson: Yes, but I will say more. Many bureaux have senior police officers who are responsible for their management. I see no problem with that in principle, but if an issue comes down to a technical question, there should also be a senior expert who is the bureau manager. I see no problem with having a senior police officer who has overall responsibility for the forensic science service for their particular police force, but it is important that the person who manages the bureau is also a practitioner.

Stewart Stevenson: Failing which, it would be essential that they had a demonstrated—I use that word carefully—ability to understand the job that the professionals are doing.

Mike Thompson: That is very important.

Stewart Stevenson: Thank you.

Mike Thompson: I was going to explain about the additional courses that we run, which are continuous professional development courses—for life after the advanced course. We encourage lifelong learning for practitioners. That includes learning about developments not only in processes and procedures but in legislation that may affect how we must carry out procedures. We must also take on the more “managerial” responsibilities, which include considering financial implications and man management, which is crucial. That is all part of continuous professional development.

The national training centre has run courses for bureau managers that focus on man management and human resource issues rather than the competencies of the expert.

13:00

The Convener: I will allow an extremely brief question from Margaret Mitchell.

Margaret Mitchell: Mr Thompson, when you reported back to the Crown Office, did you comment on how the procurator fiscal had asked for the material to be presented in the perjury trial?

Mike Thompson: I do not believe that we did. The report went back to the procurator fiscal's office and that was the last I heard of it.

Margaret Mitchell: You did not look at that aspect.

Mike Thompson: No.

Margaret Mitchell: Thank you.

The Convener: We have reached the end of our questions. We might get back to you for clarification of one or two areas, particularly in relation to training issues. I presume that it would be okay to do that.

Mike Thompson: Absolutely. I do not know whether this is appropriate, but if you wish to do so, the offer is open to you, convener, and any of your colleagues to visit the national training centre to observe a course in operation in order to understand more fully the process of training fingerprint experts in the United Kingdom.

The Convener: We would like to do that, but I am afraid that time is against us. When we look forward, we might want to get back to you on a few matters.

Ken Macintosh has caught my eye. I am about to suspend the meeting, Ken. Do you want to clarify a point?

Mr Macintosh: It is just to confirm that Mr Thompson will ask Mr Sheppard to confirm whether he lectured on the McKie case in 1999, prior to his involvement in it.

Mike Thompson: Indeed.

The Convener: It would be helpful if the training centre could confirm exactly what it knew before it came to the table and examined both print Y7 and print Q12.

Mike Thompson: Yes.

The Convener: The training centre looked at both those marks.

Thank you very much, Mr Thompson.

I suspend the meeting for lunch.

13:02

Meeting suspended.

14:30

On resuming—

The Convener: Good afternoon. I apologise for our late start. I welcome our large panel of witnesses. Peter Swann, whom members know, is a fingerprint consultant; Malcolm Graham is an independent fingerprint expert; and John Berry is a retired fingerprint technician. Our witnesses from the SCRO are: Robert Mackenzie, deputy head of bureau; Alan Dunbar, quality assurance officer; Terry Foley, senior fingerprint officer; and Alister Geddes, fingerprint officer. I thank you all for agreeing to return to give evidence after the committee ran out of time at its meeting on 7 June. We wanted to afford you as much time as we gave to other panels. We will hear from no other witnesses this afternoon, so I hope that we will be able to ask all the questions that we want to ask.

Stewart Stevenson: I think that the convener will allow committee members no more than about 20 minutes in which to ask Mr Swann about his presentation, so it would be useful if we could all be as concise as possible.

Mr Swann, you have considered Mr Zeelenberg's presentation. Are there differences between his approach and your approach of which the committee should take particular note?

Peter Swann: The main difference is that Mr Zeelenberg approached the matter from an exclusionary point of view—as opposed to having an open mind. He wanted to exclude the fingerprint in the first place—those are his words. If someone starts out with such a mindset—to use that phrase—they are on a specific path.

Nevertheless, Mr Zeelenberg could examine only the ridge characteristics that were present. If he had done that in the way in which I did it—and the way in which I would expect any fingerprint expert to do it—he should have arrived at a different conclusion.

In his report, Mr Zeelenberg mentions my presentation and uses red, blue and green overlays to try to explain the distortion. He makes quite a few mistakes and becomes quite muddled when he refers to the mark that I took from the *Daily Mail*. He says that the mark with the ridges at the top came from the *Daily Mail*, but it did not; it came from the rolled impression taken from Shirley McKie, which her solicitor sent to me.

Mr Zeelenberg's approach is totally different from mine. One might almost say—

Stewart Stevenson: May I interrupt, as you are focusing on a difference in your approaches to exclusions? How should differences that could lead to an exclusion properly be dealt with?

Peter Swann: If we find sufficient characteristics that are in disagreement, of course that leads to a non-identification. It depends how many such characteristics one finds; we can all find X characteristics in agreement, but some people say that if there is one disagreement, that is the end of the story.

Stewart Stevenson: When you consider a fingerprint comparison, how do you come up with points that could lead to an exclusion? At what stage in the process do you actively seek differences as well as similarities?

Peter Swann: I look for ridge characteristics, rather than for differences or similarities. When a person starts to make an identification, they must find a starting point. There was a starting point for me on mark Y7.

Stewart Stevenson: So, at the outset, you postulate that that point is the same in the two prints.

Peter Swann: Yes.

Stewart Stevenson: Is it fair to say that, at that stage, it is a postulation, not a fact?

Peter Swann: No; it is a fact. In the case that we are discussing, there is a prominent characteristic looping over the centre core of each mark, which was my starting point. In general, if I find such characteristics, I start from that and then work out the ridge structure. I ensure that, as far as possible, all are in agreement and in the same sequence. I continue until I am satisfied that the marks are identical. If, in that process, I find one or two or maybe more characteristics that do not fit or are in disagreement, I must either explain that or, if I cannot—even after returning to the marks later—I know that I am probably heading towards a non-identification. However, with mark Y7, I did not find that. The characteristics were all in agreement.

Stewart Stevenson: So finding potential differences between the two prints is a side-effect of making the comparison to see whether they are the same.

Peter Swann: That happens automatically. If a characteristic is in disagreement or is out of place—or whatever we want to call it—we must either explain it or conclude that the two marks are not identical. Generally speaking, if I find five or six points of agreement, I know from experience that I will find more and more points of agreement. If I do not, I will of course stop and reassess the marks. Certainly, there has to be a positive disagreement. The issues about a ridge coming up on its own and ending and another one coming up and joining on to another ridge—or bifurcation of ridge ending—have all arisen because of pressure and distortion and the way in which the print was put down. All those factors play a part and we must allow for them.

Stewart Stevenson: I want to play back what you said just now, which was, "There has to be a positive disagreement." Is that what you said?

Peter Swann: Yes.

Stewart Stevenson: Therefore, there has to be something provably different before you accept that there is a disagreement.

Peter Swann: Yes. In other words, I have to see something on one mark—either the crime scene mark or the mark on the fingerprint form—but not on the other.

Stewart Stevenson: The courtroom basis of dealing with evidence is that the issue must be beyond reasonable doubt, but you turn that on its head when you say that there must be a positive disagreement. You say that, unless the marks are different in some absolute way, one has to conclude that they are the same. To quote you,

you said, "There has to be a positive disagreement." Is that what you wish to say to the committee?

Peter Swann: If I am examining a mark and find, hopefully, characteristics that agree in detail and position but I then come to a characteristic that is on one mark and not on the other, I stop and assess why that is the case. I have to reassess and, if possible, work out what has happened. Sometimes, there might be an area of smudging or smearing—I do not know. All marks are different. However, in the case of mark Y7, the characteristic details that I worked with, horizontally, around the body of the centre of the ball of the finger, all agreed in detail and position. There was not one characteristic that disagreed. Those agreements are marked on the chart that I produced.

Stewart Stevenson: So if the latent mark is less clear or of lesser quality than the print that is extracted from the tenprint—which will almost invariably be the case—and there is not sufficient clarity to allow the disagreement to be positive, do you disregard the potential disagreement? To quote you again, you said, "There has to be a positive disagreement."

Peter Swann: Obviously, a disagreement has to be positive to allow the expert to say that the marks are not identical. There must be a disagreement that cannot be explained.

Stewart Stevenson: You suggest that the point at which you start to operate in that mode is when you have identified five or six points of agreement. Is that correct?

Peter Swann: Yes.

Stewart Stevenson: Does that mean that you think that five or six points of agreement are sufficient and that 16 points—which is the standard that has been operated to—is excessive? Is that where you are coming from? You have made up your mind after five or six points of agreement, at which point you start to disregard potential points of disagreement because you cannot prove them to be disagreements.

Peter Swann: No. I think that I said that when there are five or six points of agreement, there is no doubt that there are going to be more—the rest will, generally speaking, fall into place. However, for identification, the minimum number is eight.

Stewart Stevenson: So, at five or six points of agreement, your expectation becomes that you will find more points of agreement.

Peter Swann: Correct.

Stewart Stevenson: So, that is your mindset, to use the psychological term.

Peter Swann: No. That is the way it works—that is the way it is. It is not my mindset at all. That is the way it is. I have looked at thousands of fingerprints, and that is what happens.

Stewart Stevenson: After you have found six points of agreement, have you ever found that there are points of positive disagreement?

Peter Swann: I cannot recall finding that.

Stewart Stevenson: That is your experience.

Peter Swann: That is my experience.

Stewart Stevenson: From what you know of other people's experience, does that ever happen?

Peter Swann: No.

Stewart Stevenson: So, you are not aware of any expert anywhere who, after finding six points of agreement, has found a point of positive disagreement. You are not aware of anyone anywhere who has done that.

Peter Swann: No.

Stewart Stevenson: Before I pass the baton to someone else, I have a final question. I received an e-mail from Mr Darcy Swan, to whom you referred when you were before us previously. He makes the point in that e-mail that he positively adheres to the view that the identification of Y7 was wrong. Do you adhere to what you said about him the last time, when you suggested that he thought that it was acceptable?

Peter Swann: That is not what he said to me. I met him in Nottingham when I went there to investigate another case. I did not know the gentleman. I was introduced to him and I said, "Oh, you are one of the people from New Zealand who have signed the main list of signatories regarding mark Y7." I told him that I was involved in the case and he said, "Yes, I know." I asked him what he had said, and he said that they told the people who approached them that they would not make a firm decision until they had better quality material, because the material on the internet was too poor for them to make a positive identification.

Stewart Stevenson: Given the published statement, which I am prepared to accept is basically what you have just said, would you care to comment on why he might contact me to contradict that?

Peter Swann: I do not know why he has done that. I do not know what further material he has received—someone must have sent him some material.

Stewart Stevenson: To put it in context, he stated that the exchange that he had with you at the time was different. With that, I hand back to the convener.

The Convener: I ask for one point of clarification, Mr Swann. We heard earlier in the debate about the importance of characteristics in disagreement. We heard from previous witnesses that one characteristic in disagreement that could not be accounted for would be enough to stop the identification process. We have also been advised that that is the Home Office guideline. What you are saying is different from that.

Peter Swann: I know what the guideline says: 16 characteristics in agreement with none in disagreement. That has been in place since 1953. In practice, however, experts find characteristics that appear to be in disagreement for which there is some explanation. That often happens. The first chart that I prepared for mark Y7 contained 21 characteristics in agreement. There were some at the top that, at that time, I could not explain, although I explained them later when I got a proper rolled impression of Shirley McKie's print. At that time, I knew that, because there were so many characteristics in agreement—21—it was an identification, irrespective of what we saw at the top, which was difficult to assess until we got the right rolled impression.

The Convener: I want to get clear in my mind the issue of characteristics in disagreement. As you have correctly stated, the Home Office guideline says that there should be none unless, as you say, they can be accounted for. Is it your evidence and your view that, if there is one characteristic in disagreement that cannot be accounted for, you would normally stop the process?

Peter Swann: If a characteristic is in such clear, glaring disagreement on the mark that is being compared with the print—or, indeed, vice versa—that you cannot explain its position and so on, you have to say “No, it's not identical.” However, you have to take into consideration many other factors such as the position of characteristics, the relationship between them and any movement or distortion. You cannot simply say, “There's one characteristic in disagreement—end of story.” It does not work like that. It all depends on how many characteristics are in agreement.

14:45

The Convener: How many characteristics in disagreement did you find in Y7, which, despite what others have said, you have said is Shirley McKie's mark?

Peter Swann: I found none.

Mr McFee: I want to clear up a couple of points with regard to your previous evidence to the committee. My colleague has already mentioned the e-mail from Mr Swan that every committee member has received, in which he says that at no

stage did he say that he had changed his opinion about the identification of the mark. I will leave the two of you to scrap over who is right about that.

In your previous appearance before the committee, you said:

“One should not go into such cases in a half-hearted manner”.

I think that we all agree with that. However, with regard to other fingerprint experts, you then said:

“I have often asked them to tell me if there is something wrong with the evidence, as that does not bother me, but as yet no one has said, ‘Hang on, this is not right.’”—*[Official Report, Justice 1 Committee, 7 June 2006; c 3378.]*

Do you recall making those comments?

Peter Swann: Yes. In the one or two presentations that I have given on the subject matter, I have asked the people present to look very closely at the material that I have left and have said, “If you find something wrong, for goodness' sake, get on the telephone and tell me.”

Mr McFee: So, before this inquiry, no one ever said to you, “We think you're wrong.”

Peter Swann: That is correct. Well, one gentleman in the police force down south who did not attend those presentations has been quite vociferous in this country in saying that the mark is not identical. Indeed, he probably even said that to me in conversation.

Mr McFee: Who was that?

Peter Swann: David Fairhurst.

Mr McFee: I was going to ask you about Mr Fairhurst.

I have been informed that at a meeting of the Fingerprint Society on Saturday 8 March 2003 you allowed other individuals—David Fairhurst and Kasey Wertheim—to look at the evidence in the presence, I think, of David Charlton.

Peter Swann: That is right.

Mr McFee: I believe that Mr Charlton was not refereeing as such, but observing.

Peter Swann: That is right. He sat and said nothing.

Mr McFee: Did not Mr Wertheim and Mr Fairhurst tell you at the time that they disagreed with your findings?

Peter Swann: Yes.

Mr McFee: So it is incorrect to say that no other expert has disagreed with you.

Peter Swann: Yes. Mr Kasey Wertheim, who is the son of Pat Wertheim, came up to me while I was with a colleague and asked me to show him the charts. We went into a private room and, after

he had spent three quarters of an hour perusing the charts, I said to him, "Surely that's long enough. What's your verdict?" He said, "They're not identical." I said, "Well, that's it, let's go back to the gathering"—it was more of a social evening than a meeting. Curiously, he then said, "Can I take a copy of these charts?" I said, "What on earth for? You don't want a copy of an unidentical mark, do you?" He said, "I'd like to take a copy to go and discuss it further." "No," I said. "If you had said it was identical, you could have had a copy." He said, "But I've got a camera upstairs." I said, "Forget it." That is how we parted. He was adamant about wanting a copy, and I wondered why.

Mr McFee: In any case, it might well have slipped your mind but, contrary to your previous evidence, two experts disagreed with you on 8 March 2003.

Peter Swann: That is correct.

The Convener: It might be helpful if the other witnesses make some brief introductory remarks on how they came to be involved in the case and the conclusions that they have drawn.

Malcolm Graham: I had retired as detective chief inspector in charge of the Edinburgh identification bureau. On 1 May 1997, I received a phone call from Ms Lesley Dowdalls, who was the lawyer in Kilmarnock representing David Asbury. She asked whether I would do the forensic work in connection with the case against David Asbury. I said that I would and she sent me all the police statements together with certain questions relating to the taking of samples from the victim, Marion Ross, in the mortuary.

Ms Dowdalls was also concerned about Marion Ross's and David Asbury's fingerprints on a Marks and Spencer tin box, and about the presence of Asbury's fingerprints in the house. I looked at all the material; I faxed her a sequence of events; I answered her questions; and I agreed to meet her in Kilmarnock the following week.

I met Ms Dowdalls and a defence advocate in Kilmarnock. When I arrived, I was told that there had been a development in the case—a woman detective constable who had been at the scene of the crime alleged that her colleagues had planted her fingerprint inside the house where Marion Ross was killed. I was therefore asked whether I would have a look at her fingerprint as well as the fingerprints relating to Asbury.

I examined all the productions in the Asbury case and then concentrated on the McKie case. I received all the productions for the McKie case, including the enlargements from the SCRO. I received a book marked "L", which contained two actual-size photographs of fingerprints. The prints were marked "Y7" and had been found on the

doorframe in the house. Both photographs showed the same fingerprint; one was dated 16 January 1997, the other 18 February 1997. They were identical. I also received two fingerprint forms taken from Ms Cardwell, as she was named at that time. She is now known as Ms McKie.

I examined the fingerprint on the doorframe, compared it with Ms Cardwell's fingerprints, and was perfectly satisfied that the fingerprint identification was correct. The fingerprint on the doorframe belonged to Ms Cardwell.

I was asked to consider the possibility that the fingerprint found on the doorframe had been transferred there from the Marks and Spencer tin box found in Asbury's house. I understood that McKie had been involved in the search of Asbury's house and had picked up the tin box, which contained money. I looked at the fingerprints on the tin box and decided that the fingerprint could not possibly have been transferred from the box. From the photographs that I was given of the fingerprint on the doorframe, I could see nothing to suggest that the print had not been put there naturally, by somebody touching it.

The fingerprint on the doorframe looked to me like the upper part of a left thumb. Would you like me to elaborate?

The Convener: You will be questioned shortly, so I was just looking for a brief introduction to how you became involved in this case and what your conclusions were.

Malcolm Graham: I was involved at the very beginning, and my conclusions were that the fingerprint in the house belonged to McKie. I reported on that fact.

The Convener: All witnesses are probably aware that issues of sub judice arise in relation to the Asbury trial, but I remind you all to be careful.

Malcolm Graham: Of course. I appreciate that.

The Convener: I think that we are okay so far, but it will be helpful if we focus almost exclusively on the Y7 mark.

John Berry: I am a bystander in this case. I say that because all the people who have given you evidence are professionally involved, but I am not. I retired in 1991 at 65 years of age. However, I am a fingerprint researcher and I publish a magazine of 100 pages annually. I am therefore still pursuing my fingerprint career.

I was alerted to this case by a statement by Patrick Wertheim that I read in a Scottish newspaper. He said that 90 seconds had ruined 100 years of forensics. I was baffled. I presumed that he meant that he had taken 90 seconds to decide that Shirley McKie did make the mark, that he had given evidence in court, that she was

found not guilty and that, therefore, this was the first time in the British isles that there had been a plea of not guilty in a fingerprint case. Of course, that is totally wrong. I have seen pleas of not guilty accepted in fingerprint cases.

I was interested in the case for a number of reasons. I knew the Americans. I have met Pat Wertheim, David Grieve—who gave evidence in the McKie trial—and a man called Ed German, who was instrumental in circulating material. I had also known Robert Mackenzie, who is here, and Charles Stewart for more than 25 years. I knew the persons who were involved in both sides of this case.

I was fascinated to receive, over the internet, the marks of the scene imprint and Shirley McKie's left thumb, which were circulated by the Americans. I was appalled by what I saw. For instance, the fingerprint from the door had a scrape mark from the bottom left to the middle right. I know that the SCRO mark did not have that and I am also aware that Peter Swann has a pretty good photograph of this difficult mark that does not have that scrape mark. I wanted to know, first of all, where that scrape mark came from, given that it was not there when the mark was photographed by the SCRO. Also, the fingerprint of Shirley McKie was a plain impression. I have no knowledge of any fingerprint expert ever examining a scene mark using a plain impression. The system started in 1901 and, since then, rolled impressions showing 100 per cent of the detail have been used. Plain impressions show only about 50 per cent of the detail—I might say, grudgingly, that they can show as much as 60 per cent or 70 per cent of the detail. Throughout the world, millions and millions of computer programmes are used and every one is based on the use of a rolled impression. I worked for 37 years in bureaux comparing hundreds of thousands of marks and always used a rolled impression. Why did Wertheim and his associates send a plain impression of Shirley McKie's thumbprint? That was my big problem. I decided at that point to take an interest in this case.

Do you want me to continue?

The Convener: I think that the committee wants you to continue.

John Berry: I spent a great deal of time on this complex mark. Eventually, on the scene imprint, above this minefield of broken ridges, I discovered a characteristic that I thought was very important. It was a bifurcation, which is rather like a set of points on a railway line. Normally, the bifurcation is about 170°—in other words, it is a little less than horizontal. The characteristic that I discovered—which I termed the Rosetta characteristic—was 130°, with a dot next to it. A friend of mine said that it reminded him of the side view of a 125 express train, which I think is a true analogy.

I attempted to find the characteristic on the plain impression of Shirley McKie's thumbprint. I spent a considerable amount of time working through the minefield of ridge detail. After a long period, I found the Rosetta characteristic. Unfortunately, instead of being like the side view of a 125 train, it was a sort of blob with a dot in it. I knew that it was the Rosetta characteristic and that, without any doubt, the mark had been made by Shirley McKie. However, I wanted the Rosetta characteristic to be clearer. Some time later, I opened the *Daily Mail* of 24 October 2004 and saw, to my absolute amazement and enjoyment, a magnificent rolled impression of Shirley McKie's thumbprint, which accompanied a pro-Shirley McKie article. Of course, I recognised it straight away. I knew every characteristic on it. The impression was magnificent, crisp and clean. On the right-hand side, in all its glory, was my Rosetta characteristic. I drew a line from the Rosetta characteristic on the scene mark to the top of the core and found that there was a 66° distortion, which I have rarely come across. At that point, I had to transfer through 66° the *Daily Mail* image of Shirley McKie's thumbprint until the Rosetta characteristic was vertically and horizontally in the same place. It was difficult to do that but, once I had done it, I was able to state unequivocally that it was made by Shirley McKie. I then prepared a chart showing 16 ridge characteristics in agreement and also pointing to errors in the minefield and sent it to the Scottish Executive. That was probably about three years ago.

15:00

Robert Mackenzie (Scottish Criminal Record Office): I am the deputy head of the Glasgow bureau of the Scottish fingerprint service. My first involvement with the case came late in the afternoon of 17 February 1997. I was aware that there had been a murder in Kilmarnock, but I was not involved directly with any comparisons in the case until then. A message came to Chief Inspector O'Neill, who was the head of the bureau at the time. As far as I know, the message came from the divisional commander at Kilmarnock, and it asked whether the mark Y7 could be looked at against Shirley McKie—or Shirley Cardwell, as she was known at the time—to confirm the finding that had already been given to the officer in charge at Kilmarnock, as it was being challenged.

Along with Alan Dunbar—I cannot remember which of us saw it first—I was asked by Chief Inspector O'Neill to examine the mark and a police elimination form in the name of Shirley Cardwell. The result of my comparison was that the impression labelled Y7 was eliminated as the left thumbprint of Shirley Cardwell. The following day, Strathclyde police—I do not know whether it was off their own bat or in line with the fiscal's

instructions—went back to the scene of the murder of Marion Ross and rephotographed the mark Y7 on the doorframe, and also obtained a second set of elimination prints from Ms Cardwell. The prints came to the fingerprint bureau in Glasgow for a further comparison against the rephotographed mark and the second fingerprint form. Again, the result of my comparison was that the impression labelled Y7 was eliminated as the left thumbprint on the second set of police elimination fingerprints in the name of Shirley Cardwell.

After the trial of Shirley McKie, in August 1999, I was asked by then Chief Superintendent Harry Bell, the officer in charge of the Glasgow bureau, to ask for the productions back from the fiscal's office and to revisit the identifications in the case, and the identification of Y7 in particular. What came back were two police elimination forms and a fingerprint form taken for the charge of perjury, along with photographs of the mark and the books that had been produced in court by the officers.

I then went through an intense analysis of all that material, but I was turning my mind back to 17 and 18 February 1997, and trying to remember where I started my comparison. I was conscious that my comparison started in what Mr Swann would call the core area—the centre of the print. I then moved in sequence and agreement out to the right-hand side of the print. In my initial assessment, back on 17 and 18 February 1997, I was conscious of the disturbance at the top of the mark and of what I have termed a fault line approximately through the centre of the mark.

I was interested to hear Mr Stevenson talking a few weeks ago about what exactly is original material and what happens with photographic negatives. I have seen various impressions taken from the negatives in the case, and they are not always the same. As with any photograph, you can have them printed in different contrasts.

On some of the impressions that I have seen on the internet or in people's presentations, the fault line is not as clear as it is on some of the versions that I have seen. Mr Wertheim—or certainly someone—mentioned a black hole in the upper part of the print. However, if one prints the mark with the correct contrast, it is possible to identify clusters of characteristics—which I have done—that are identical with the impression of Shirley McKie.

The background to the comparison is that, as someone said, one can work only with the material that one has to hand. The material that I had to hand was two police elimination forms. My initial decision was based on those—first, on 17 February 1997, and secondly, on 18 February. When the material came back and I was asked to revisit the case, I did not want to look at the

perjury form, and I did not, because my initial decisions were not made from that. My decisions were made from a one-to-one comparison of mark Y7 and, first, an elimination form on 17 February and, secondly, another elimination form on 18 February.

There are differences between fingerprint forms that are taken from individuals. There are differences in quality, differences in the way in which the fingerprints are rolled and differences in the pressure used. Mr Berry mentioned rolled impressions. On this occasion, unfortunately, Strathclyde police had not made a good job of the rolled impressions when it took the elimination prints.

When, eventually, I revisited the case, and from my memory, I noted that the 18 February form was slightly better than the 17 February form. Four options were available to me: two rolled impressions and two plain impressions. I have mentioned in another forum that the second form was the original form. In fact, it came back from the fiscal's office labelled "original form" but it was the second form. The plain impression of the left thumb on the second form, which was taken on 18 February, was the best material that I had available to me, and the photographed impression was also the best that I had seen.

Alan Dunbar (Scottish Criminal Record Office): I am the quality assurance officer at what was called the SCRO and is now the Glasgow bureau of the Scottish fingerprint service. On 17 February, I was asked by Chief Inspector Willie O'Neill, who was the head of the fingerprint bureau, to carry out a comparison of a mark that had already been posted as eliminated to Kilmarnock. I was informed that it involved a police officer and that it had been challenged. As quality assurance officer, I was asked, with Mr Mackenzie, to take an independent view of the mark and to report back with findings. We passed the information to each other, without the result, and we reported back to Mr O'Neill. At the same time, we gave our findings, which were that the impression was eliminated as the left thumbprint of Shirley McKie.

Later, I was instructed by Chief Inspector O'Neill to carry out what has been called the blind trial. We asked several officers to look at the impression against the form—they did not know who the donor was—as it was placed on the enlarger. No officer came back with a different finding. Again, that was reported back to Mr O'Neill.

On 18 February, I was asked to look at the second form, to which Mr Mackenzie referred, and I had the same findings.

Alister Geddes (Scottish Criminal Record Office): In 1997, I was a member of team 4 at the SCRO fingerprint bureau, which at that time had responsibility for Strathclyde police U division. As a result, we received the Marion Ross case. The case was assigned to me and I was involved in it throughout the comparison of the marks, until it was allocated for court.

I was the first fingerprint examiner who was asked to verify Y7, which I did. During the case, I was also asked to verify Q12. I was not aware that it was being disputed until I watched "Frontline Scotland". Further, I was asked to verify QD2, which I found out only in 2005 was being disputed, when I was informed that two Danish officers had made a report five years previously. I state for the record that I was one of the officers involved in the Sutherland case, which was recently aired at the committee when Allan Bayle made an allegation about an erroneous identification, which was subsequently verified by Bruce Grant as being a full and proper identification.

Terry Foley (Scottish Criminal Record Office): I am a senior fingerprint officer at the Glasgow bureau of the Scottish fingerprint service. My first involvement in the case was when I was asked to take part in the blind comparison in February 1997. I was asked by Mr Dunbar to look at two impressions that were placed on a comparator to find out whether I could find sufficient detail to eliminate one against the other. The actual photographs of the latent mark and the tenprint form that contained the left thumbprint were not made available to view or touch at that time, but they were placed on top of a comparator with only the images of both the mark and the left thumbprint being on view via the comparator screen.

I emphasise that when I viewed the images on the screen, the screen was clear of any previous markings from people who had also taken part in the blind comparison. Once I had drawn my own conclusions, I removed my own markings so that the next person could take part in the comparison.

Before carrying out my part in the blind comparison, I was asked by Mr Dunbar to view both images on the comparator and to submit a conclusion of whether I could find sufficient detail to eliminate the mark as being made by the left thumbprint, which was also on show. At no point was I pressurised or influenced by being made aware of which case the mark belonged to or from whom the elimination prints on the tenprint form were obtained.

I subsequently found 10 characteristics on both the latent impression and the left thumbprint that were in sequence and agreement. From that, my conclusion was that there was sufficient detail to eliminate and I had no doubt that the mark from

the left thumbprint and the latent print were made by the same person.

The Convener: Thank you, that is helpful. Will you make something clear when you respond to members' questions? Some people have spoken about "elimination" and others have spoken about "comparison". We want to be clear whether there is any difference or whether the words are interchangeable. I remind you that you are talking to people who are learning about the process. It is very important that we understand the difference between those terms. We might have to clarify that with others around the table.

Stewart Stevenson: I want to nail down a couple of factual points before colleagues ask other questions. Mr Mackenzie, you first saw a photograph of the latent print on 17 February 1997. You made a comparison, and saw a second improved photograph of the latent print the following day. You talked about the differences in what one might see from different levels of contrast when developing the print from the negative. I want to be clear: was there what has been referred to as damage on those two prints?

Robert Mackenzie: No, there was not.

Stewart Stevenson: Therefore, you are saying that, subsequent to the second photograph that was taken on 18 February 1997, there might have been—please tell me if you know—a modification to the latent as it was on the piece of wood.

Robert Mackenzie: I clarify one point: there was no great difference between the two photographs of the mark on 17 and 18 February; it was the fingerprint form that was better.

Stewart Stevenson: But were different photographs taken on the two days?

Robert Mackenzie: Yes.

Stewart Stevenson: I read nothing into that; I just want to be factually correct.

15:15

Robert Mackenzie: I just want to clarify that as well—the fingerprint form on the second day was that bit better. As was said before, fingerprints vary from form to form.

I was not involved in the David Asbury case or the Shirley McKie case. I was not a witness in either of those cases, but some feedback came back from the officers who had given evidence. I was privy to an almost verbatim account, which Mr Bell gave me at a later stage, of the proceedings of the Shirley McKie case. It mentioned one of the officers—I think that it was Fiona McBride. The officer who made the notes stated that Fiona seemed taken aback—that is perhaps not the right way to put it—when she was shown Mr

Wertheim's photograph of mark Y7. She did not seem to recognise the image as being what she had seen before. I did not see it until a later stage. It was after a session at Tulliallan in August 2000 that I got to see what was meant by this. The officer said in his notes, "Oh, I can now see what she means." He was obviously looking at the image on a monitor or whatever. She made the comment that she had not seen the image before or that there was obviously something different. That was the only knowledge that I had.

Stewart Stevenson: So you are confirming what others have said, which is that at some point in the process the original item appears to have been damaged.

Robert Mackenzie: The first time that I noticed it was when Mr Wertheim produced a photograph in the case of Shirley McKie.

Stewart Stevenson: That is fine.

Mr Foley, you talked about the mark up and mentioned the screen having been cleared. Was the mark up that you were doing based on your seeing a photograph on the computer screen on the system that operated in the bureau?

Terry Foley: It was a comparator screen. It was not a computer screen as such. We use a comparator, which has two different screens on it: one for the tenprint form image and one for the latent scene of crime image.

Stewart Stevenson: Is it an optical enlargement screen that projects and allows you to overlay?

Terry Foley: Yes. At that point the image was placed on top of a magnifier that enhances it.

Stewart Stevenson: So the images are side by side, but it is an optical enlargement.

Terry Foley: Yes.

Stewart Stevenson: So the criticisms that have been levelled at the computer system by other witnesses are irrelevant to what you have been saying?

Terry Foley: Yes.

Stewart Stevenson: That is fine. That was just a factual question.

The Convener: Mr Mackenzie, you were asked by Mr O'Neill, the officer in charge, to eliminate the print. What is the process? You mentioned comparisons.

Robert Mackenzie: No. I was asked whether we could find the mark that was being challenged and the elimination forms. I think that it was Mr Dunbar—I do not remember going to the case file—who retrieved mark Y7 and what now turns out to be the police elimination form for Shirley Cardwell. I was essentially asked to make a

comparison, but obviously we saw an elimination form so we looked at it as an elimination.

The Convener: So that is what we are talking about. The process of blind testing is a comparison, but it is still part of the elimination process.

Robert Mackenzie: Yes.

Mr McFee: Mr Foley described how the blind test came about and Mr Dunbar also mentioned it. What did you do? For example, did you speak to Mr Foley? How did Mr Foley carry out the blind test?

Alan Dunbar: I was instructed to carry out the test. One of the lady members of the committee talked about anonymity at one of the committee's previous evidence sessions. We try to do such tests as anonymously as possible. In other words, we do not try to say to somebody, "Here is a police officer and here is an elim form. Do you want to eliminate this police officer?" That element was taken out of it. What Mr Foley tried to describe to Mr Stevenson is like a light-box with clamps on it. You put the form in upside down so that you cannot see that it is a police officer's elims.

Mr McFee: Do you put a larger photograph of an image in it?

Alan Dunbar: No. The images are normal size, but it projects the image on to two screens.

Mr McFee: Did you specifically ask Mr Foley to do that?

Alan Dunbar: I asked a number of officers to look at a blank screen with the images clamped on the top and asked, is there enough on there to eliminate the individual: yes or no?

Mr McFee: You did not just put it into their workload?

Alan Dunbar: No.

Mr McFee: My problem with that is that when Mr Hugh Ferry came before the committee, I asked him specifically what a blind test was and how it would operate, and he said:

"A blind test is where a mark has been identified by an expert or a number of experts and is then fed into the workload of another expert to test whether he or she can identify it as being from the same individual."—[*Official Report, Justice 1 Committee*, 23 May 2006; c 3152.]

Is Mr Ferry wrong?

Alan Dunbar: Not at all. That is the most common definition of a blind test. I did not call this a blind test, although the term has been bandied around by everyone so far. I am only alluding to what happened that day. Call it what you wish.

Mr McFee: In your view, was it a blind test?

Alan Dunbar: No, we were seeking a result from an unknown source.

Terry Foley: As Mr Dunbar said, the term blind test has been used in the media and elsewhere. The term seems to imply that I was put under pressure to reach a conclusion or that I knew that there was a conclusion to be reached. As far as I was concerned, I was asked to make a comparison and to eliminate one print by comparing it with the other. It was not a test in any way.

Mr McFee: I take blind to mean that you did not know whose prints were involved before you made the comparison.

Alan Dunbar: The issue is whether the officers were told whose prints they were looking at.

Mr McFee: Mr Ferry specifically defined a blind test as the feeding of a mark into someone's workload. In this case, you asked Terry Foley specifically to look at the mark, without saying whose it was.

Alan Dunbar: Yes.

Robert Mackenzie: I became the trainer and demonstrator for automatic fingerprint recognition systems when they were introduced in 1991. In 1993, I took over training in the fingerprint bureau. In that year, the training was revamped to mirror everything that was done at Scotland Yard and Durham. All the boxes were ticked in line with what was done in those places. However, many forces from south of the border came to us to see how we were looking at training afresh. We had a lot of new ideas that some other bureaux have still not implemented.

The Evett and Williams report suggested that there should be testing in bureaux and testing of experts. On the back of the quality regime that I was building up from 1993, in 1995 the SCRO became the first organisation to take up the cudgels on that. Chief Superintendent George Leitch and Chief Inspector Jackie Law told me one day that they wanted me to develop a competency test for experts, based on the Evett and Williams report.

In 1997, we were in quality assurance testing mode. As part of the quality assurance regime that I had built up, I had introduced random auditing for the first time. I started off with 10 cases a month, before stepping up to 20 cases a month. I examined cases blind. I looked at cases that had just come in the door and were being booked in by clerical staff, as well as at cases that were about to go out the door and were with clerical staff and cases that were with experts and trainees. In other words, cases were examined in their entirety. Elims were checked, suspects were checked and the AFR system was checked to see whether everything had been done correctly. Mr Dunbar has further developed that process over the years.

At the time, it was realised that the mark that we are discussing was a complex mark. If we get complex marks, it is not unusual for us to highlight them to the training department, so that they can be included in its portfolio of material for training. That is the background to what happened. I am sorry if I have gone off at a tangent.

Mr McFee: I want to check something with Mr Dunbar. You are responsible for quality assurance. Can you tell us anything about the practice that we heard about of some individuals signing or initialling the back of photographs for others?

Alan Dunbar: Not particularly. The procedure was not written down, but I saw it being used in various cases when I dip sampled or audited them at the end of the process. It was prevalent, but it was to do with the comparator who signed it. We are not talking about signing for the identification in any fashion—that takes place on the envelope. The minute the envelope has been signed, it has been signed for identification.

Mr McFee: So would I find the initials of Mr Geddes and Mr Foley on the back of the Y7 photograph?

Alan Dunbar: No.

Mr McFee: Would there be other officers' initials on the back of it?

Alan Dunbar: I saw for myself that there were other officers' initials on it.

Mr McFee: So that is no guarantee that somebody had looked at it.

Alan Dunbar: No. The procedure was not an official procedure.

Mr McFee: Is the procedure prohibited now?

Alan Dunbar: I would not say that it is prohibited; rather, people write on the diary page, which has developed much more.

Mr McFee: As a quality assurance officer, would you expect to see photographs being initialled nowadays, particularly by one individual on behalf of another?

Alan Dunbar: I would not expect photographs to be initialled.

Mr McFee: Why?

Alan Dunbar: Simply because procedures have moved on and the diary page—which is open and transparent and which anybody can look at—has been developed.

Mr McFee: So such a practice would not be best practice now.

Alan Dunbar: It would not be the practice that would be used.

The Convener: Blind testing has been referred to. Was a written procedure followed or did you basically determine what you would do as you went along?

Alan Dunbar: Do you mean in this case?

The Convener: Yes.

Alan Dunbar: Senior management instructed me what to do, and I tried to work in the best possible fashion, so that what I did could be looked back on. I did not necessarily agree with what I had to do, but I did it to the best of my ability.

The Convener: Who do you mean by senior management?

Alan Dunbar: I presume that it was Mr Ferry. Mr Mackenzie was present in the room when Mr O'Neill instructed me to do it.

The Convener: Do you mean when you were instructed to do the blind testing?

Alan Dunbar: You can call it whatever you want. Other officers had to be found to look at the mark. I said that I did not think that that was necessary because six officers had already agreed with the elimination, as had Mr Geddes, so that was seven officers. However, I carried out my work to the best of my ability and tried to make things as anonymous as possible. What happened had certainly not been done before and it has never happened again.

The Convener: Was the procurator fiscal aware of all the tests that were taking place?

Alan Dunbar: No.

The Convener: So an internal decision was taken.

Alan Dunbar: Yes—unless senior management had told the procurator fiscal about them. I certainly did not do so, as I had no direct involvement in the case.

Robert Mackenzie: I was not aware of Mr Ferry's presence on the Monday afternoon, but Mr O'Neill might have been in contact. I think that Mr Dunbar thinks that there was contact in the background, but I was not aware of it. I was simply aware that we had to make a comparison. However, I am certain that once Mr Dunbar and I had carried out an independent check, we gave our findings to Chief Inspector O'Neill, who passed on the information to the officer in charge at Kilmarnock. That was before any blind testing; from memory, the blind testing exercise followed. The check that we were asked to do was carried out and Mr Dunbar and I confirmed again that the elimination of the Y7 mark was against the left thumb of Shirley Cardwell.

The Convener: Mr Geddes, will you elaborate on your involvement in the case? You will be aware that other witnesses have made something of your involvement because initially you could identify only 10 points of comparison. From your evidence, I note that you were satisfied that there was still identification.

Alister Geddes: I was asked by Mr Macpherson to second-check his identification of Y7. I was given an actual-size photograph of it and an elimination form for Shirley Cardwell, who is now Shirley McKie. I carried out my comparison and was fully satisfied with the result. No pressure was placed on me by any officer inside or out with the bureau. I gave Mr Macpherson my conclusion that I had verified his identification. He then asked me whether I was able to adhere to the 16 points; I said that I had not achieved the 16 points, but that I had achieved sufficient points in the sequencing agreement to satisfy myself fully that there was an elimination.

Mr Macpherson's opinion was that we should stick to the 16 points; he clarified his reasons fully when he gave evidence. I asked him for an explanation, because the 16 points was not relevant to elimination prints. However, that does not mean that I adhered to a lesser standard. The 1953 national standard was more of an administrative recommendation. From 1901 until 1953, officers presented identifications in a court of law and were happy to demonstrate those identifications without adhering to any numerical standard. The science of fingerprints allows identifications to be made without the requirement for any numerical standard.

15:30

The confusion arises because it sounds as if I fell away from a standard and as if I have not adhered to a standard that was in place for fingerprints. That is not the case. As it was understood in 1953, officers would reach a conclusion of identity long before 16 points were made. They could present identifications with fewer than 16 points. I was happy with my identification, I stated that to Mr Macpherson and we discussed the mark as two professionals. To this day, I am grateful to Mr Macpherson for the way in which he conducted himself. Contrary to any scurrilous allegations, he placed no pressure on me whatever. He listened to what I had to say, we discussed the mark and he told me that he could achieve 16 points. He showed me the area that he worked in and I showed him where I was working from. We discussed my analysis of the mark. I went away and did another comparison. I was still unable to achieve 16 points, but I was still 100 per cent convinced that Y7 belonged to the left thumb of Shirley McKie. Mr Macpherson

accepted that and I was allowed to carry on with my duties.

We keep talking about processes. If what I described was to happen today, the only difference would be that I would have an entry in the diary page alluded to by Mr Dunbar: "Mr Geddes agreed with the verification and verified Y7, but could not achieve 16 points." No doubt was expressed, so there was no reason for the case to go to a case conference or for any other procedure to be followed. The only difference of opinion between me and Mr Macpherson concerned the application of the national standard.

Not until 2003 was I made aware that any mileage was being made of my first involvement, when Shirley McKie's averments for the Court of Session were sent to me. They state, "Thereafter, on 11 February 1997, Macpherson instructed another employee within SCRO, Geddes, to compare the latent with the elimination print. Geddes declined to confirm that there was a match and refused to sign the appropriate form." That is absolute rubbish. The document goes on to say, "Notwithstanding Geddes's doubts, the only other opinion he had obtained was a contradiction; viz Geddes: 'That it was not her print was obvious.' It had been doubted by Geddes." That was the first time I knew that my involvement was being misrepresented and construed in that manner.

The Convener: So you are saying that you did not refuse to sign any form.

Alister Geddes: I did not refuse to sign any form.

The Convener: You confirmed the identification with 10 characteristics.

Alister Geddes: I did indeed.

The Convener: What reason did Mr Macpherson give you for wanting to have 16 points?

Alister Geddes: An elimination normally implies that an individual had legitimate access to the crime scene. If memory serves me right, Y7 came as a result of my second examination. It was found on a doorframe in the house where the body of the deceased was found, so it stands to reason that it would have substantial evidential value if it was subsequently identified. It was identified as being that of a police officer. At the time, we were unaware that Ms McKie had stated that she was never at the locus. Despite what is said about official procedures, logbooks and so on, it would amaze you how many times police officers' prints turn up at the locus. They walk in and it is as if they have got to touch something. As far as I was concerned, this was just another example of a police officer who did not keep her hands in her pockets when visiting a locus.

The Convener: Towards the end of paragraph 5 of your submission, you say:

"The standards, ethics and practises that A J Zeelenberg adheres to obviously differ markedly from those at SCRO."

You go on to comment on Mr Zeelenberg's statement about there being scope to eliminate a scene-of-crime mark. Will you elaborate on what you meant?

Alister Geddes: In 2005, the Scottish Executive asked me to revisit my conclusions on Y7, Q12 and QD2. It also gave us reports by Wertheim, Bayle, Zeelenberg and the national training centre and asked us to comment on them. Mr Zeelenberg states in his report:

"Geddes declined to confirm the identification but confirmed the elimination. This demonstrates the different natures of these conclusions as discussed before."

Much has been made of Mr Zeelenberg's mindset. The terms "elimination" and "suspect" are administrative; I use the term "potential donor". The fact that anyone's print—whether it is Miss McKie's or anyone else's—is an elim print makes no difference to my analysis of the mark or to my comparison of it with the other production. That is a total irrelevance. Mr MacLeod, Mr Zeelenberg and others seem to have assumed that because I had an elimination print in front of me, I was somehow influenced and did not take due care with my comparison. That is nonsense and it is a blatant insult.

Mr Zeelenberg said that I confirmed the elimination without making an identification, but how could I possibly have done that? If I eliminate someone, I assign ownership of the mark and make an identification—unless I have a print with a spherical pattern, which we call a whorl, or a loop pattern, in which case I can make what is now termed an exclusion and say that the print definitely does not belong to a particular person without assigning ownership of the mark. I assigned ownership—I said that the donor of the mark was Shirley McKie. I did not eliminate without making an identification; I made a full and proper fingerprint identification.

Stewart Stevenson: In view of previous discussion, will you tell us how you deal with potential disagreements between the latent and a print from the tenprint?

Alister Geddes: When a fingerprint examiner first sits down with their scene-of-crime mark, they have to glean as much information from that mark as they can. At the initial stage, the whole focus is on the scene-of-crime mark. On the mark in question, I took a similar view to Mr MacLeod in that I considered it to be a complex mark. There was evidence of deposition pressure. The ridges were quite close together at the bottom of the mark and quite far apart at the top, which implied

to me that pressure had been applied and that there had been movement. There was also what has been referred to as a fault line running from midway up the left-hand side right across to the right-hand side. In my initial analysis, I took that to be evidence of movement.

I was not at the crime scene, so I could not give a witness account. I could only use my training, experience and knowledge to assess the mark to the best of my ability. The assessment that I made at the time was that the mark had been placed on the doorframe tip first, that it had been twisted and that the bottom part of the finger had then been placed on the doorframe. Both parts of the mark were made by a single touch, albeit that they were made at different times.

You asked about possible disagreements. I approach a mark with an open mind. Certain indicators help when it comes to making an assessment. There seems to be a difference in how I was trained to use indicators and how some other experts use them. Reference has been made to what we refer to as fault ridges at the top of the mark and to the fact that the way in which they sloped suggested that it was a right thumb that had made the mark. In training, I learned that although that was a general indicator, it was only an indicator and was not a tablet set in stone. We are talking about indicators.

Stewart Stevenson: I do not want to cut across what you are saying, which is interesting, but I want to focus on quite a narrow area. You have a latent that is of considerably lesser quality than the tenprint. Where there is a clear mark on the tenprint that you cannot find, or where there is ambiguity on the latent, how do you deal with that? Is that a potential difference? What has to be there for you to decide that a difference exists? How do you approach the process of making a comparison that shows not similarity, but dissimilarity?

Alister Geddes: As I stated, I believed that this mark was placed on tip-first, twisted and then placed down. The bottom part of the mark is where I worked from, and there are no differences there. I worked on the bottom part of the mark and worked from what we refer to as a target group. I worked out to the right and out to the left, and all the ridges and ridge characteristics fell in sequence and agreement.

There were ridge endings that perhaps appeared as a bifurcation, but that is not a difference; it is an event that can be explained by pressure being placed on the finger, by sweat or by grime on the finger. Anything at all can make a ridge ending look like a bifurcation. The only dissimilarities of which I was aware in that initial analysis were in the top part of the mark. I was unable to work out the movement on the mark to enable me to work from the bottom up to the top;

however, I found sufficient characteristics in sequence. I could not ignore all that detail in sequence and agreement at the bottom part of the mark. Because my initial analysis stated that I was comfortable with the movement, I was able to explain why I could not work on the top part of the mark.

Stewart Stevenson: Let me play back and confirm to you a comment that you just made. You said that the ridges at the bottom of the mark were close together and that the ridges at the top of the mark were relatively distant—you did not use the word “distant”, but that was the sense of what you said. Does that suggest that the pressure was greater at the top of the mark or at the bottom of the mark?

Alister Geddes: I would say that it means that the pressure was greatest at the bottom of the mark, probably.

Stewart Stevenson: So, increased pressure leads to the ridges being closer together rather than the skin being stretched and their being further apart. Is that what you are saying?

Alister Geddes: I could not say for definite.

Stewart Stevenson: But you are the expert—I am not.

Alister Geddes: All I am saying is that it is an indicator of the differences in deposition pressure.

Stewart Stevenson: I am following this line of questioning because it seems to me, as a layperson, that if the ridges are further apart there will be less potential ambiguity about the structure of the ridges as they appear in the latent. In general terms, is that a fair comment?

Alister Geddes: It depends on what is being worked on. The area that was shown to me to be perfectly clear and which had sufficient characteristics for me to carry out a comparison occurred in the bottom part of the mark.

Stewart Stevenson: Let me ask the general question, though. Is it easier to work on a print in which the ridges are relatively separate? When the ridges are closer together, is there a risk that it will be difficult to resolve the number of ridges? Is that a potential risk in analysis, for example?

Alister Geddes: Yes, it could be a potential risk.

Stewart Stevenson: Do you think that that potential risk has any relevance to the interpretation of this particular fingerprint, in which the ridges were close together at the bottom of the latent and more distant at the top?

Alister Geddes: That is why I spent five years training, having annual competency tests and being subjected to internal and external audits.

Stewart Stevenson: Mr Geddes, you are far more expert than I am—I do not question that. I am merely asking a factual question so that I can understand the difficulties that you have when you are trying to do your job.

Alister Geddes: Well, yes, it could be a potential difficulty. That is why we are trained—we have to be able to interpret the detail and the data that are before us. We cannot say that there is a difference and discard the mark just because there is deposition pressure and movement. We have to conduct a proper analysis.

Stewart Stevenson: I have a final factual question. Is the fault line to which you refer—the axis about which this twisting of 66°, or whatever the number may be, appears to have taken place—coincident with the area that photographs that were taken of the latent subsequent to 18 February 1997 show as damaged?

Robert Mackenzie: Yes—

Stewart Stevenson: So it is the same—

15:45

Robert Mackenzie: I have described the marks as striations, but initially I spoke about a brush mark, because someone showed me the print that appeared on one of the websites—I do not normally look at them—which suggested that the only difference was the brush marks through it. I adopted that terminology, not knowing what had caused the striations. When I was visited by Mr William—

The Convener: Mr Mackenzie, you used the term “fault line”. We need to be clear about what that means.

Robert Mackenzie: I will wind the clock back. When I did my assessment, it occurred to me—I presume that it occurred to other people who recognised that there had been movement—that there was a fault line on the two marks that I saw on 17 February and 18 February.

The Convener: What is a fault line?

Robert Mackenzie: That is the terminology that I used to describe the white line that runs through the print.

The Convener: I must stop you there, because we cannot proceed until it is clear to us whether there is a difference between the fault line and the alleged damage to the mark. If I pass you the print, will you say whether you are talking about a fault line or damage?

Stewart Stevenson: I am a layman, but if I look at the diagram—if we lift up the acetate—I see what appears to be a line that runs broadly from the 8 to the 25.

Robert Mackenzie: That line is not the fault line; we are looking at the brush mark on Mr Wertheim’s version.

Stewart Stevenson: My question to Mr Geddes, which led us into this discussion—you appeared to nod in response, so I directed my comments to you—was whether the brush mark on that diagram is coincident in its positioning with the fault line that you identified between the top half of the print, where the ridges are more distant from one another, and the bottom half of the print, where they are closer to one another.

Robert Mackenzie: The brush mark is directly above what I described as the fault line.

Stewart Stevenson: So the two are broadly oriented the same and are in the same position on the latent.

Robert Mackenzie: The fault line is not straight; it is not shaped like tram rails. The brush mark striations are more like tramlines.

Stewart Stevenson: In geological terms, the fault line is like a syncline or an anticline.

Robert Mackenzie: Yes. I have said this to many trainees and I say it when I explain the case to other people: the worst thing that we can do is to take an actual-size photograph and a magnifying glass and look straight into the print. Mr Geddes alluded to that. We must take in all the information. I suggest that people look at a print at arm’s length. I remember that my brain registered the fault line. The Americans call indicators on prints—the things that we should look out for—red flags. The fault line was a red flag that was waving at me, to warn me to take it into consideration in my assessment of the mark.

To be fair, some people who saw material on the internet but did not see the original material might have been genuinely confused, because they were not aware of the fault line. If they saw the mark that has the tram rails through it, they will not have seen the fault line, because it is hidden by the tram rails. On the original mark, the fault line is visible—

The Convener: So there is a fault line, which you identified, in the mark.

Robert Mackenzie: Yes. It is not a straight line—

The Convener: Was the fault line caused by something?

Robert Mackenzie: It was caused by movement and pressure as the print was laid on the surface, which is an indicator that tells us, “Watch out! Do not be taken in.”

Another matter—

The Convener: I will stop you there, because I do not want you to go too fast. There is a fault line in the mark, which the SCRO identified. Separately from that, you say that when you saw the other mark—let us call it Wertheim's mark—you saw something else, which you describe as a possible brush mark and which other people have referred to as damage.

Robert Mackenzie: I think that I might have said they were striations.

The Convener: Your evidence to the committee today is that the fault line is just below the brush mark on the copy of the mark that we have.

Robert Mackenzie: It is underneath it, yes.

Stewart Stevenson: You mean that the brush mark obscures the fault line.

Robert Mackenzie: Yes. The brush mark striations obscure the fault line. That is good terminology.

The Convener: I see. That is helpful.

Robert Mackenzie: That is why I am trying to be fair to people who might not realise that the fault line is there.

Stewart Stevenson: I think that I have probably run dry, convener.

Mr McFee: I want to check a couple of things with Mr Geddes. Is it your contention that, in terms of the process that you go through or the standard that you are expected to achieve, there is no difference between a print that you view with the purpose of eliminating it because it might belong to someone who had legitimate access to the scene, and a print whose owner you are trying to find because you believe that they could be the perpetrator of a crime?

Alister Geddes: When an examiner is first assigned a case, they have to bear in mind the fact that at some future point, they will have to stand up in a court of law, deliver evidence and justify their conclusions. As a result, whenever I have scene-of-crime marks—whether I am looking for eliminations or suspects—the people I am looking for are just potential donors of a scene-of-crime mark. Nothing influences my comparison.

Mr McFee: Can we do this in one word? Was that a yes?

Alister Geddes: Yes.

Mr McFee: We have had evidence that would suggest something slightly different.

I am taking everything that you have said at face value. You were satisfied with the result. No pressure was put upon you. You did not find 16 points, only 10. You were satisfied that that was enough to eliminate that print as belonging to

Shirley McKie or Cardwell. You said that 16 points are not relevant to elimination prints.

Given that you were the person who second-checked Mr Macpherson's work, why were you not chosen to go to court?

Alister Geddes: Mr Macpherson clarified that when he gave evidence. He had achieved 16 points in all the prints that were identified so he wanted to maintain the national standard with all the identified prints.

Mr McFee: If you had been one of the people who were selected to go to court, do you think that the court would have seen your evidence as being of lesser value because you had not achieved the 16 points?

Alister Geddes: The science of fingerprints enables us to come to a conclusion without any numerical standard. That is why non-numerical standards are used in England and Wales.

Mr McFee: We understand that; that is one of the things that we have picked up on. However, we have been told several times that 16 points represents a standard that the court seeks when it receives evidence.

Alister Geddes: That is correct to a certain extent, but it does not preclude the presentation of evidence of less than 16 points. When the non-numerical standard was first mooted in England and Wales, we received a bundle of cases that had gone to court and were proven on far fewer points than 16.

Mr McFee: Indeed, but if there is a choice of experts who have looked at a mark, and you had 10 points and four people had 16 points—I cannot remember how many Mr Foley had—we would choose those people who had found the 16 points.

Alister Geddes: To maintain uniformity within the process, I suppose that we would.

Alan Dunbar: To clarify, Mr McFee, the national standard in Scotland allows us to go to court with fewer than 16 points. It is up to the Crown to decide whether to proceed. In the Mark Sinclair case, it chose not to proceed but it did not say that there was a non-identification; there were fewer than 16 points of identification, as there were with Miss McKie's mark.

Mr McFee: I am not saying that it was a non-identification. I am wondering about the process of choosing who presents the evidence in court. The fiscal might prefer someone who has found 16 points to someone who has found 10.

Alan Dunbar: I am sorry; I cannot answer that.

Alister Geddes: It would not preclude me from giving evidence.

Mr McFee: I think that I have said three times now that I understand that.

The Convener: I think that we are clear. There are a few more questions for Mr Geddes, and then we shall move on.

Mrs Mulligan: You said that when you looked at the print and could find only 10 points, you told Mr Macpherson that that was the case and discussed the print. Were the 10 points that you identified also identified by Mr Macpherson? Did he try to show you the other points that he had found?

Alister Geddes: Mr Foley explained the use of the comparator. We certainly had discussions over the comparator regarding what I perceived as the 10 ridge characteristics that were in sequence and agreement. Mr Macpherson took the time to show where he was getting the points. In the area that I was working on, he had identified agreements also.

Mrs Mulligan: Were all the points at the bottom of the print? You mentioned earlier that you work from the bottom.

Alister Geddes: The ridge characteristics that I found were at the bottom of the print. When Mr Macpherson demonstrated the characteristics that he had found, the vast majority of those, too, were at the bottom of the print, if I remember correctly.

Mrs Mulligan: Was there a problem with the top of the print? Was that why neither of you headed in that direction?

Alister Geddes: I cannot speak for Mr Macpherson but, from my initial analysis of the scene-of-crime work, I considered that there had been movement. I considered that the top part had been placed down before the bottom part. I could not figure out the movement.

Mrs Mulligan: In your discussions at that point, you were not able to reach an agreement. What is your view about what you have experienced today, which is us, as lay people, looking at prints and trying to say whether there are matches?

Alister Geddes: The mark is complex. You guys have had to listen to experts giving testimony after testimony. John MacLeod does not agree with our conclusion, but his analysis of the mark differs completely from that of Mr Wertheim; Mr Zeelenberg's analysis is different again. I understand your problems. Earlier, Mr Pringle complained that some of Mr MacLeod's pictures were just black. I am sorry, but it would not make any difference to you if they were not. That is not arrogance.

If you remember, James Mackay's investigation was a result of an allegation against us of criminal corruption. Shirley McKie placed in the averments a claim of malicious conspiracy. That has now

been watered down by Mr MacLeod to professional negligence. How long do we have to wait until we are told that we are right? We were right on QD2, the Mark Sinclair case and the Alexander Sutherland case.

Mr McFee: What about Q12?

Alister Geddes: We are right on that also—that will be proven.

Mrs Mulligan: Convener, those are all my questions for Mr Geddes. I have other questions, but you may want to carry on with Mr Geddes.

The Convener: If Mr Geddes does not mind, we will finish all the brief questions to him before we move on. Marlyn Glen, is your question for Mr Geddes?

Marlyn Glen: It could be.

The Convener: If not, there is a queue.

Marlyn Glen: What Mr Geddes said helps. I cannot see all the differences—there is no way that I can. We have been concentrating on the latent print, but I want to ask about the print from the tenprint with which you made the comparison. Mr Mackenzie talked about the second tenprint set being clearer than the first set.

Robert Mackenzie: That was my personal comparison.

Marlyn Glen: In evidence a couple of weeks ago, we heard that Pat Wertheim took up to 100 prints, trying to change the movement of the thumb. Given that, as Alister Geddes said, the pressure changes how the print looks, all those prints would look a bit different.

Robert Mackenzie: Every one would be different. What surprised me about Mr Wertheim's evidence was that he said he was trying to replicate the print. I think that he held the thumb on its side and said that we had the left-hand side. Earlier, Mr Berry said that the best impressions, if they are taken correctly, are from nail to nail—the fingers are rolled from side to side. That is what the main prints on the tenprints are. Our job would be easy if perpetrators of crimes came along, rolled their thumb on a surface and went, "Now identify me"—but life is not like that.

I have with me an illustration of the fingerprint, which explains the fault line. The illustration is from Kasey Wertheim; he sent a CD around the world, from which I took only the one image. I thought, "That's fantastic. That will help me explain to the lay person." Members will see that the illustration is like a colour reversal; it is a purple fingerprint on a black background. It actually shows the fault line. The purple is the ridges and the line through the black background is the fault line, which on the real photograph is white. We can see the fault line on this illustration, without

the brush mark. I will pass it round to let members see it.

16:00

Marlyn Glen: It is clear that pressure makes a difference to a fingerprint.

Robert Mackenzie: I mentioned fully rolled impressions. On this other colour picture, we can obviously see the very tip of the mark. However, with the material that we had, we could not find that piece. Unknown to us, Mr Swann had an impression from Shirley McKie that included that part. As I said in my submission, that is why I was curious. I had heard it reported at the time—I am not sure whether it was in the press or at court—that Mr Wertheim had taken 56 impressions. I was curious because, if he had taken 56 fully rolled impressions, surely there would be a detailed covering of every area of the thumb. That was the point I was trying to make.

Marlyn Glen: Obviously someone—an expert—could take a rolled print without much difficulty.

Robert Mackenzie: They would not need to be an expert. For example, Strathclyde police, which is probably one of the busiest police forces in Europe, never mind in Scotland, used to have its scenes-of-crime officers take prisoners' fingerprints every day. For reasons of economy and so on, that process was changed, but those officers took fingerprints day in, day out. They did not work in the fingerprint bureau, but they were expert in that part of the job. They took fantastic prints.

Alan Dunbar: As a footnote, the Aberdeen report contains images that were taken by Mr Wertheim. Whether he took 56 or 100 impressions, only nine were contained in that report, and they are all left-hand-sided plain impressions; there are no right-hand-sided rolled impressions in the report. It seems strange that Mr Wertheim did not release all his impressions to allow the Aberdeen office to compare them and to report.

Stewart Stevenson: Mr Geddes, just to be absolutely clear, your points of comparison were in the bottom half of the mark. In the top half, was there sufficient detail to do any sort of analysis, either for points of disagreement or for points of agreement?

Alister Geddes: Yes, there was detail on the top part of the mark, but it was out of sequence with what had been achieved in the bottom part of the mark.

Stewart Stevenson: Could you explain that to a layperson?

Alister Geddes: If you are carrying out a comparison of unique features, what allows you to

make an identification is the arrangement of those unique features in two different marks: the tenprint mark and the scene of crime mark. The arrangement, if it is an identification, will begin to fall in sequence and agreement. Everything from a target group out to the left to out to the right in the bottom part of the mark was in sequence and agreement. There were no differences as far as I was concerned. When I worked round to the right to go up to the top part of the mark, it was out of sequence. So it was out of sequence and I could explain it because of this fault line that was going across it, from which I inferred that there was severe movement taking place. There is detail in the top part of the mark that subsequently allowed Mr Berry and Mr Swann, on seeing the *Daily Mail* version of Shirley McKie's left thumb, to carry out a further comparison. However, for my initial analysis, I concentrated on the bottom part of the mark.

Stewart Stevenson: Just to be absolutely clear, in the top part, features were out of sequence, but you did not consider that to be, to use Mr Swann's phrase, "a positive disagreement" that should invalidate what you found in the bottom half—why not?

Alister Geddes: The severe movement in the mark allowed me to explain why I could not work from the bottom to the top. Because of that movement, the mark was out of sequence.

Stewart Stevenson: I see what you are saying in one sense. However, were you able to disregard the bottom half of the mark and still make comparisons between the features in the top half and the tenprint to establish whether they matched?

Alister Geddes: Unfortunately, the elimination form that I had at the time did not show the detail on the right-hand side where I would have expected it to have appeared.

Stewart Stevenson: So when you say that things were not in sequence in the top half, what were you comparing it with if you did not have the tenprint that showed you enough detail to make such a comparison? What are these things not in sequence with?

Alister Geddes: There was detail that allowed me to go up into the top part of the mark and discover that it was out of sequence with what I already had, but there was not enough detail in the tenprint form to carry out a full comparison with the top part on its own.

Stewart Stevenson: Roughly how many distinct features could you see in the top half of the latent print?

Alister Geddes: I cannot say off the top of my head.

Stewart Stevenson: But there were a number.

Alister Geddes: There was sufficient detail to make a comparison.

Stewart Stevenson: But you did not establish that comparison with the part of the tenprint that related to the top half of the latent print with which you were making the comparison.

Alister Geddes: I was unable to carry out a full comparison of the top part on its own against what I had available in the tenprint form.

Stewart Stevenson: Okay.

Margaret Mitchell: I want to confirm some details in Mr Berry's evidence. Although you retired in 1991, you have clearly retained an interest in the world of fingerprints.

John Berry: Correct.

Margaret Mitchell: I think that you said that you were alerted to the McKie case by Mr Wertheim's statement that 90 seconds has ruined a full century of forensics.

John Berry: I believe that he said that 90 seconds ruins 100 years of forensics.

Margaret Mitchell: And you concluded that Mr Wertheim was overegging it a bit. Indeed, he seemed a little starry-eyed in his claim that he was turning fingerprint history on its head.

John Berry: That was my impression.

Margaret Mitchell: You knew that, although it did not happen regularly, a not guilty verdict had been returned on the basis of disputed fingerprint evidence.

John Berry: Yes. I have given evidence several hundred times and, in at least three cases, the jury returned a not guilty verdict. I never interfere with a jury verdict.

Margaret Mitchell: You expressed surprise that the image presented on the internet was plain rather than rolled.

John Berry: Correct.

Margaret Mitchell: Did I hear you right when you said that a rolled image had been used since 101?

John Berry: Since 1901—

Margaret Mitchell: Oh, it was 1901.

John Berry: Since 1901, when fingerprinting was introduced at Scotland Yard, rolled impressions have been used. You would be a fool to use a plain impression because 50 per cent of the area of the finger might be lost.

Margaret Mitchell: Did the defence in the Shirley McKie case use a plain or a rolled image?

John Berry: I do not know. All I know about is the material circulated by the Americans; I do not know anything about evidence produced by the SCRO.

Margaret Mitchell: What about the evidence that Mr Wertheim produced for court purposes?

John Berry: I saw a BBC Scotland programme in which Mr Wertheim said that he knew within a minute that Shirley McKie had not made the mark. Such a statement is ridiculous. I have spent months—not minutes, hours, days or weeks, but months—working on substandard material. I was able to make a proper comparison only when I saw Shirley McKie's left thumb in the *Daily Mail* of 24 October 2000.

Margaret Mitchell: So some discrepancies might have arisen from the feeling that the mark was very simple and that a conclusion could be drawn from a plain image rather than from a standard-practice rolled image.

John Berry: Yes. He must have seen the SCRO marks because he gave evidence, but I have not seen them. All that I have seen is what was circulated by the Americans, which is substandard, and the left thumb impression of Shirley McKie in the *Daily Mail*. That is what I worked on.

Margaret Mitchell: I understand that, and I will come to that.

Mr Mackenzie, did you want to clarify something?

Robert Mackenzie: Yes. In Mr Wertheim's submission, he refers to three lots of charts that were produced by the officers from the SCRO. It is those that he compared initially, and he did so in 90 seconds, which is even more phenomenal—he might even have done it in one minute. He talked about looking at the charts first. Mr Zeelenberg talked about stuff from the internet. Others who provided submissions to the committee in February include Mr Grieve. Nearly every person, including Mr Bayle, looked at the marked-up enlargements first.

If I can take a few minutes to go off at a tangent, I was asked to look at another serious case—it was one of the most controversial cases in this country in recent years. An inquiry team came to me and asked me to look at a particular case from the Metropolitan police. They had two envelopes. They said, "In this envelope, we have actual-size photographs, fingerprint forms and enlargements. In another envelope, we have the actual-size prints, fingerprint forms and marked-up enlargements. If we can just leave all this with you." My first reaction was, "No. Don't leave marked-up enlargements with me. Leave the first envelope and I will give my opinion." That is what I

did. Before they left, they asked me to look at the blank mark and they said, "Before we leave this with you, have you ever been shown this mark before by anybody from anywhere?" My answer was no.

Mr Zeelenberg had preconceived ideas and he made decisions based on internet material before he was given material by Her Majesty's inspectorate of constabulary for Scotland. I relate that to my experience, which I described. My approach to decision making is that you must look only at the actual-size prints and the forms, and not at other people's mark-ups. I do not know what people took to court or what they marked up. I do not know what characteristics Terry Foley, Alister Geddes, Alan Dunbar or Peter Swann saw. Somebody asked me, "Do you see the same characteristics?" but I do not know what characteristics they saw. Alan Dunbar and I saw different areas of a print and we gave evidence on them independently of each other. We saw different characteristics. The independence of the process is important.

Margaret Mitchell: Mr Berry, you said that when you saw the *Daily Mail* print, which was a rolled print, the Rosetta characteristic was clear. You could go back to the internet print and identify it, but only with the help of the *Daily Mail* print.

John Berry: That is correct.

Margaret Mitchell: I think you said that, as a result of that, you prepared a 16-point identification chart, which you passed to the Scottish Executive.

John Berry: Yes.

Margaret Mitchell: Who in the Scottish Executive did you pass it to?

John Berry: It was probably three years ago.

Margaret Mitchell: Did you just send it generally to the Scottish Executive?

John Berry: I have no idea who it was addressed to. I did not keep a copy of the correspondence. I just prepared a 16-point chart and I pointed out where the minefield was—where the ridge detail was altered. I sent it to the Executive. That was three years ago, probably.

Margaret Mitchell: Did you get a response or an acknowledgement?

John Berry: No.

Margaret Mitchell: It would be useful to know—if you could go back and find out—exactly who you sent it to and which department they were in.

John Berry: I do not think that I could find out.

Margaret Mitchell: That is a pity.

John Berry: I did not keep a copy of the correspondence. A gentleman phoned me up.

Margaret Mitchell: A gentleman phoned you up?

John Berry: Yes. A gentleman from the Executive phoned about potential evidence. I said that I had prepared the chart, after a great deal of work, and I was asked to send it, which I did, but I have no idea who the gentleman was. I am sorry, but I have no idea.

Margaret Mitchell: Can you—

John Berry: I just put the chart in an envelope and addressed it to whoever it was, and that was the last I heard.

Margaret Mitchell: Was that in 2003?

John Berry: It was probably about 2003. It could have been 2004. I am 80 years of age, and sometimes these things slip by.

Margaret Mitchell: I worked your age out. Thank you.

16:15

Mr Macintosh: Mr Geddes, we heard that you found out in 2003, when you saw the averments in the Shirley McKie case, that your evidence was being misinterpreted. I believe that other so-called doubters have been quoted on the McKie website and in the media. Were you one of those doubters?

Alister Geddes: From Shirley McKie's averments, it would appear that, collectively, four colleagues at the bureau and I were being described as the five doubters. That headline has appeared on the BBC and in the Scottish media and has been used to justify Shirley McKie's malicious conspiracy theory. I was interviewed on four separate occasions by officers from the James Mackay inquiry team. I appreciate that everyone has seen the summary of the Mackay report but that we are not allowed to speak about it. In 2003, Mr Mackay gave a precognition in which he implied that I could not make the identification. Written statements were taken at each of the four interviews to which I have referred. I have those statements, which I received only recently.

On 13 October, I gave a statement at SCRO Pacific Quay to a Detective Sergeant Dunn and a Detective Constable Gary Ogilvie. I said: "Given the significance of the position of that mark and Hugh Macpherson's identification as that of a police officer, it was felt that, at the very least, that officer would be in serious trouble for leaving her fingerprint in such an important area. I was asked to verify the mark and, without any pressure from Mr Macpherson, I subsequently made my own

independent examination and found 10 characteristics in sequence and agreement. I was happy to eliminate the mark on what I had found and this was accepted by Mr Macpherson."

Given the statement that I made to the Mackay inquiry team, his inference of doubt is beyond belief. I have no idea where Ms McKie gets her interpretations. I gave four statements, which I have with me. I am happy to give those statements to the committee. I do not know what the legal ramifications are, but if members want to read them, they are there.

Mr Macintosh: Mr Foley, are you also one of the so-called doubters?

Terry Foley: That is correct.

Mr Macintosh: Do you have any doubts?

Terry Foley: None whatever. As I said earlier, I was asked to assist with the blind comparison. From what I have seen of his report, Mr Mackay's account of my involvement in the blind comparison is incorrect and untrue. Claims of conspiracy and cover-up seem to have developed from the report but, like Mr Geddes, I do not understand how Mr Mackay reaches his conclusions based on statements that we submitted and precognitions that we gave.

I was precognosced on 9 October 2000. In the precognition, I state:

"I was asked by Alan Dunbar, Quality Assurance Officer to have a look at two impressions on a comparator screen which was set up in the Chief Supt office. He never told me anything about it and just asked me to look at it. His question to me was "Do you see enough in this mark to eliminate it with the impression next to it?" ... Alan sat in the room whilst I examined the mark".

I marked up 10 points of comparison in sequence and agreement. The precognition continues:

"I thought the mark showed sign of movement or distortion but I concluded that I felt there was sufficient to eliminate it against the impression."

I used the word "eliminate". When I say that, I mean that I had no doubt that the impression was made by Shirley McKie's left thumbprint. Mr Mackay's report says that I refused to support the identification, which is incorrect.

The Convener: You have spoken about the Mackay report. You will know why the Lord Advocate has said that the committee cannot see that report. Normally no one else would get to see a very confidential police report. For the record, could you indicate whether you believe that we should have access to the report?

Terry Foley: In light of what I have just said, I think that the committee should have access to it.

The Convener: So you would not have any difficulties with that. I thought that it was relevant

to ask you the question because the purpose of applying the principle of confidentiality to police reports such as the Mackay report is to protect individuals who are named in them, and some of you are named in the Mackay report. I want to be clear about whether you support the committee's view that it should be able to use and refer to the report.

Terry Foley: What I have said today is what I said in my precognition statements for the Mackay report, so I would have no problem whatsoever with the committee having access to it. What is in the report should be exactly what I said in my precognition statements.

Mr Macintosh: It would be interesting if you were to give the committee your precognition statements. The difficulty is that the summary of the Mackay report and what is alleged in it do not accurately reflect what you have said in your evidence. Mr Macpherson and Mr Stewart have stated that the report does not reflect their positions—I refer to the so-called argument in a car park and so on. Mr Graham, is it correct that Mr Mackay's report does not reflect your position either?

Malcolm Graham: I have never read the Mackay report.

Mr Macintosh: I think that you referred to a summary of it in *Scotland on Sunday*.

Malcolm Graham: Yes. I wrote a letter about that. The newspaper suggested that Mackay had marginalised me in order to make it seem that no fingerprint experts were in favour of the identification. I cannot mind the exact words that were used; the newspaper produced only a summary of the report. I asked it to retract what it had said and received a nice letter back from it in which it apologised. The newspaper had not seen the report; it had only a summary from which my name was taken.

Mr Macintosh: The difficulty under which all of us are labouring is that summary documents—as opposed to the full report or official evidence—are circulating that do not, as far as I can see, do justice to any of the SCRO officers. Mr Graham, the McKies have maintained that you too have doubts about the identification. Is that the case?

Malcolm Graham: I have no doubts about it at all. I will give a wee bit of history.

I was the first person to examine the material. In 2000, I heard that there was a big dispute and that the chief inspector of constabulary was investigating the matter. I wrote to him to ask whether I could give evidence in his inquiry and subsequently received a letter that said that there would not be an inquiry into the aspect that I asked about. I heard nothing more until three or

four weeks later, when I received an urgent letter from HMIC, which asked me whether I could go to see him urgently if I still wanted to give evidence. I saw him within two days of the letter being sent. Around a month later, I heard on the radio that the First Minister had said in the Parliament that the fingerprint in question was definitely not Shirley McKie's fingerprint. However, I was out of the loop. I did not know anyone in the SCRO, Peter Swann or anyone else, and I was the only fingerprint officer concerned at the time.

The Association of Chief Police Officers in Scotland sent McKie an apology for what had happened, so I thought that it would be right if I did the same. Therefore, I wrote a letter to McKie to apologise for the misidentification. I did not think that I had made a misidentification, but I thought that writing the letter was the right thing to do.

I was reshown the productions only when I was interviewed by Mr Gilchrist some time later. I had not kept copies of the prints and did not have anything to refer to. Mr Gilchrist showed me the original productions and Wertheim's enlargements and illustrations; I also saw the Durham productions. When I saw the original productions, I reconfirmed that I had no doubt that the fingerprint on the doorframe was McKie's fingerprint. I thought that Wertheim's illustrations were a disgrace and the productions from Durham were far worse than the SCRO's. Most of the marks were purely speculative, as were one or two marks on the SCRO's productions. I have examined many of the SCRO's cases and have been happy with a fair number of them, but I was not happy with its enlargements. Such enlargements do not mean that the identification will not be correct, but its method of marking up the fingerprints was very poor.

That is where I think that things went wrong. Zeelenberg and Wertheim have concentrated on the SCRO's enlargements and used them as a foil to prove that the identification is not proper. That is wrong. An identification is made from the actual-size scene-of-crime photograph and the form. Computers and comparators are never used at that stage. The identification is made purely on the actual-size photograph and the form with an eyeglass. Once that has been done, a comparator might be used to decide whether the 16 characteristics are there but, at the stage that we are discussing, the identification is made purely with an eyeglass. That probably happens in every bureau in the world.

Mr Macintosh: Thank you for that interesting answer. It is interesting to make a comparison. Mr Swann identified the fingerprint independently, you identified it independently and all the SCRO officers identified it independently, with no mindset. You knew of nothing beforehand. You

had no mindset other than an attempt to make an identification.

The SCRO officers have been accused of criminal conspiracy and of criminal behaviour because they refused to back down in the face of assertions against them. It was asserted not just by Wertheim, but by the First Minister, that you were wrong, and you did what you thought was the right thing by apologising.

Malcolm Graham: Yes.

Mr Macintosh: However, having had the chance to review the work, you realised that you were not wrong—you were right all the time. You have not been obstinate, but I believe that you are still considered to be part of the conspiracy—I am not sure. Mr Swann has been persecuted for his independent role.

Malcolm Graham: He has.

I took it that it was thought that if the SCRO had a conspiracy, I must have been part of it. I know absolutely no one in the SCRO; I have met none of them before. I had never met Peter Swann before and I do not know John Berry. I did not know Zeelenberg, Wertheim or any of the people involved. I had absolutely no knowledge of them. The first time that I met Peter Swann was on 7 June in the Parliament. I met the SCRO guys for the first time only today and I do not know any of them.

Mr Macintosh: It is remarkable that you all share the opinion that the mark is Shirley McKie's.

Malcolm Graham: That is not remarkable; it is because that is the correct opinion. What is remarkable is Wertheim's influence in the whole affair. I seriously doubt Wertheim's qualifications and experience. I think that he lacks even the most basic knowledge of fingerprint work and I am sure that when he was engaged by McKie, he had no knowledge of fingerprints whatever.

I have reasons for saying that. Wertheim tells us that he took in excess of 80 left thumb impressions from McKie. I do not believe that for one minute—no fingerprint officer would ever do that—but for argument's sake, we will say that he did. All were plain impressions and he did not seem to appreciate the need for rolled impressions. Any trainee with one week's experience would know that rolled impressions are taken in every case, although plain impressions are taken, too. The quality of the plain impressions that Wertheim took is absolutely appalling. He says that he took 100; I am holding up the only ones that are on the web—nine of them. I am indicating the only two that could be compared with the mark; the rest are useless. The fingerprints that were shown in the *Daily Mail* were far better than anything that he produced for us.

Wertheim said that, to produce some distortion, he took all those fingerprints. That statement is ridiculous. It suggests that it is easier to compare one badly distorted fingerprint with another badly distorted fingerprint. That is nonsense. When he was asked to produce the fingerprints that he took, he said that he could not, because they had been sent off to people. What people? Who the hang would want distorted fingerprints? I do not believe him. I think that the man tells lies and is an absolute charlatan.

The Convener: Excuse me—you made that point earlier. It would help if you did not make such remarks.

Malcolm Graham: Okay.

Wertheim repeatedly stated that the thumbprint on the doorpost was a single mark, yet he required nearly 100 fingerprints to compare that single mark with. That does not make sense. Wertheim could not identify the left thumb, and he thought that the thumbprint on the doorframe was from a right thumb. However, he never took any elimination prints of the woman's right thumb; he took only left thumbprints. If he thought the mark could have been from a right thumb, it seems strange that he did not take any right thumb eliminations.

16:30

Mr McFee: On that point, if the contention in the court case was that the doorframe mark was of Shirley McKie's left thumb—that was the basis of the case—why would Mr Wertheim take impressions of the right thumb?

Malcolm Graham: He sat here on 7 June and said that he thought that the mark could have been from the right thumb.

Mr McFee: Yes, but if somebody has been taken to court on a charge of perjury on the basis that they left their left thumbprint at a scene, why the hell would the defence take her right thumbprint? Surely what was being judged was whether the mark was from Shirley McKie's left thumbprint, not whether it was from her right thumb or her big toe.

Malcolm Graham: But if he was a fingerprint expert and thought that the mark could have been from a right thumb, you would think that he would take some right thumb impressions.

Mr McFee: Of whom?

Malcolm Graham: Of McKie—if he thinks the mark is from a right thumb.

Mr McFee: Of course, the contention is that she was not at the scene, so why would Mr Wertheim take the right thumbprint? He would take the left thumbprint to check it.

Malcolm Graham: He has a particular mindset. That is what seems to be the problem.

Mr McFee: Yes, but surely the basic principle of justice in this country is that the prosecution must prove guilt. Do we all have to go around proving our innocence?

Malcolm Graham: Well, it would seem that some people have to do that.

Mr McFee: Well, take that up with other individuals.

The Convener: Okay, can we just take some time out? Mr Graham, I think that you have had a fair opportunity to give your views on other expert witnesses.

Malcolm Graham: Can I make another point?

The Convener: No, I am afraid you cannot.

Alan Dunbar: You were right, convener, when you said a couple of weeks ago that in this country—Scotland, I believe—people are innocent until proven guilty. However, that has not happened to date to officers in the Glasgow department. Many of the people who have caused that are present here.

The Convener: Okay, I will move on from this. Mr Graham, you have had a fair opportunity to make your view of other experts clear to the committee, which is fair enough.

Mr McFee: I have a quick question, convener.

The Convener: I will call you when I am ready.

As Mr Graham has had a fair opportunity, I will move on from that line of questioning.

Mr McFee: I want to clarify what Mr Berry said. He said that the American image on the internet was substandard. Which one does he mean?

John Berry: It is still on the internet. It is the scene mark, and it shows a scrape mark from the bottom left to the mid-right.

Mr McFee: So that was the mark.

John Berry: It is the scene mark. That is all I have seen circulated by the Americans on the internet. Frankly, I thought that it was disgusting and very difficult to work with.

Mr McFee: That is clear. Mr Mackenzie, did you use the mark from the internet at Tulliallan?

Robert Mackenzie: I would need to explain the whole scenario. Basically, what I have said is that after August 1999, when I got the material back from the procurator fiscal's office, the information technology department in the SCRO alerted us to images that were appearing on the internet. I am not sure what the site is, but the IT department printed off images from it. What I found—I think

that it might be what Mr Graham just mentioned—were two particular images that could be worked with. They were of marks from Shirley McKie and were not images of the mark that we are talking about. I had copies of that mark from the internet, which were of poor quality. I will explain that further later because many inferences are flying about regarding the SCRO using the internet material at Tulliallan.

The two images that I said could be worked with were of a plain nature, but one of them was better; it included more ridge detail out to the right of the print than I had previously been shown by the two police elimination forms. I took that as a gift. SCRO staff and many other staff in the country are given training in court presentations and so on by a company called Bond Solon Training Ltd. Mark Solon, who leads the company, says that we should always look for the gifts in evidence. The image from the internet gave me a gift. I had satisfied myself with the bottom half of the print below the fault line, as we have described. However, out to the right of that was another cluster of characteristics. Not only that, but the image provided what we call edgeoscopy. Edgeoscopy is usually used only in a small area—covering only a few ridges—which is then blown up to show the ridge units. That is what Mr Zeelenberg was alluding to in his presentation of 7 June. If committee members do not mind, I will come back to that presentation; but the gift in the evidence gave me further proof that I had made a correct identification.

If Shirley McKie had given me another 50 of her impressions then, yes, I would have been able to look at another 50 impressions. However, the only material available was two elimination forms, the perjury form—and I knew early on that I did not want to get involved in that, because I had not made decisions on it—and the stuff from the internet. I had not been going around saying, “Let’s look at the stuff on the internet.” It was the chief superintendent who asked me to look at it, so I examined and analysed it.

The images of the mark were infinitely inferior to the Strathclyde police copies. They also offered my first opportunity to see the striations or the brush mark—early doors, the striations were described as a brush mark. Mr Taylor came to see me and I mentioned the brush mark and he said, “How do you know it’s a brush mark?” I said, “Well, I don’t, but that’s how it’s been described.”

Within a few weeks of that conversation with HM chief inspector of constabulary, the wording on the internet changed to scratches, scrapes, striations or whatever. I found that curious. However—

Mr McFee: Can I ask my question again? How many images from the internet, if any, did you use at Tulliallan?

Robert Mackenzie: I am coming to that. I produced my findings on the original forms, and I was then able to compare the police elimination forms with Shirley McKie’s prints—the two thumbs in particular. The work was being shown to lay, non-expert people such as you, so it was important to explain the differences between different sets of prints from the same individual. The images showed that the ridge endings and bifurcations on the thumbs could alter between one set of prints and another, for example because of the elasticity of the skin. In order to be transparent, information such as that was part of my presentation folder.

At that stage, I showed the chief superintendent what I had. He said to me, “I know you’re telling me the internet images are inferior, but could you illustrate on them whatever points you can see?” That is what I did—but with the knowledge of the work that I had already done on the copperplate prints.

Mr McFee: How many did you manage to mark up on the internet image?

Robert Mackenzie: How many characteristics?

Mr McFee: Yes.

Robert Mackenzie: I cannot remember. There were clusters of nine or 10—

Mr McFee: Was it about 45?

Robert Mackenzie: No. That is another myth.

Mr McFee: Well, could you tell me how many?

Robert Mackenzie: Well, I need to explain this, Mr McFee. On 7 June, Mr Zeelenberg gave a presentation to the committee. I think that he described it as a “wonderful” PowerPoint presentation. Well, that wonderful PowerPoint presentation was not the presentation that Mr Zeelenberg gave at Tulliallan.

I have here a page from the presentation that Mr Zeelenberg gave at Tulliallan. In my notes, I described it as having a grid box over the mark and over the digit. As committee members have heard, the mark is complex. It has movement in it and it is in more than one piece. The page is a bit like a kids’ game of battleships. For example, on the mark, you go to D along the top, and then drop down to 8, and what is in that box? It is John Berry’s Rosetta characteristic. However, if you go to the fingerprint form and put the same grid box over it, you do not find that characteristic. It is not in that area because that part has been rotated. This is kids’ stuff. I do not know what training school Mr Zeelenberg came out of, but I doubt whether anyone in the world has ever used anything like this page, yet it was part of Mr Zeelenberg’s presentation. He told all of you that Pat Wertheim’s mark was the best quality available. That is utter nonsense.

Mr McFee: This is all very entertaining, but could you tell me—

Robert Mackenzie: It is very interesting.

Mr McFee: How many images from the internet were used during the presentation at Tulliallan and—roughly, if you cannot remember exactly—how many similar characteristics did you mark on them? That is all that I am asking.

Robert Mackenzie: You said that there were about 45 characteristics in sequence and agreement. Those were not all from the internet image, as I saw reported in a newspaper—although we all know that we cannot trust anything that is written in the newspapers. Mr McFee is laughing—believe me, we cannot trust what has been written in the newspapers about the case.

Mr McFee: I am not in disagreement.

Robert Mackenzie: I saw in a newspaper that there were 45 ridge characteristics in sequence and agreement. I thought, “Wait a minute; this material has come from my presentation at Tulliallan.” To return to the point, after seeing Mr Zeelenberg use selected parts of the material in his wonderful PowerPoint presentation, Mr Dunbar and I looked out a letter—Alan has a copy of it—that each participant in the proceedings at Tulliallan was sent, along with a folder of the other presentations and the minutes or notes. I ask Alan Dunbar to read out part of that letter.

Alan Dunbar: Each participant got the booklet, but only a limited number were sent out. The letter states:

“I refer to the above and enclose a copy of the minutes and other documentation presented at the meeting. You will appreciate that the contents of the folder are confidential and not for publication or distribution.”

That was the guidance that we all worked under.

Robert Mackenzie: Say who it was signed by.

Alan Dunbar: It was signed on behalf of the detective chief superintendent on Mr Mackay’s team, Mike Watson.

Mr McFee: How many images did you use?

Robert Mackenzie: I do not have the folder with me, but I was asked to mark up what I could see from two or three of the mark images from the internet. I did not intend to use them, because of their quality. There is lots of other vital information in the one plain impression from which I worked. The quality of that impression is not replicated elsewhere—it is crucial to my personal identification. The presentation at Tulliallan was mine, not Alan Dunbar’s. Alan was there to explain about the formation of ridges to the lay people, but I gave the presentation.

Mr McFee: I am happy that it was your presentation—that is why I am asking you. You

have confirmed that you used two or three images from the internet. My question is, in the images from the internet, how many comparisons of characteristics can be made?

Robert Mackenzie: I cannot remember off-hand, but there were clusters.

Mr McFee: Was it 10 or 20?

Robert Mackenzie: Do you have some of the images in front of you?

Mr McFee: I am asking you the question.

Robert Mackenzie: I do not have my presentation with me, as I was not asked to give it here. However, on 7 June, I was sitting in the front row of the public gallery and there was a journalist sitting next to me with copies of material from my presentation. I return to the point that we received a letter saying that we were to keep the material confidential. Alan Dunbar has kept the material in his cupboard in the office for six years and I have kept it, too. None of the bureaux has seen the presentation. We were told that it was confidential. We heard what you said about the Mackay report. It is funny how confidential police material was not released by Mr Mackay, but our material, I presume through Mr Zeelenberg, ended up in his presentation.

I was not here this morning, but I understand that one of the witnesses, Mr MacLeod, may have had material from my presentation, too. I would like to know how he got that. On Friday 9 June, I asked Superintendent Carol McLean, who is the deputy director of the SCRO, to contact ACPOS to ask whether it had had any requests to release that material and, if so, whether it had released it. The answer was no. I have concerns about that.

The Convener: Your point is noted, but I am not sure that you have answered Mr McFee’s question. Will you do so briefly, because we need to move on?

Mr McFee: He certainly has not. He has gone round the houses.

Robert Mackenzie: There were not 45 characteristics in sequence and agreement and there were not what we call second-level detail characteristics. There are a total of 45 features and events in the print, but there are not 45 characteristics in sequence and agreement. In the bottom half, including the piece that came from the elimination form and the internet form, there were 21 characteristics in sequence and agreement.

Mr McFee: That was enough to allow you to make an identification.

Robert Mackenzie: Absolutely.

16:45

Mr McFee: But that was the material that Mr Berry said was disgusting.

Alan Dunbar: He said that the mark was disgusting.

Mr McFee: That is what I asked. I am interested in the contrast.

Robert Mackenzie: If somebody had said, "Can you come and look at this?" I would never—in fact, I will give you another example. Remind me about Q12, please.

The Convener: No you will not. Mr Mackenzie, you will answer Mr McFee's question.

Robert Mackenzie: Please—

The Convener: We have a few other questions.

Robert Mackenzie: I am not—

The Convener: I say to everyone that the only way in which I can manage the meeting is if people do not speak over me. Mr Mackenzie, you will get the opportunity to cover all the issues, but I have to deal with them in a certain order. I ask you to finish your answer to Mr McFee's question.

Robert Mackenzie: They were not in sequence and agreement, but 45 features marked in various clusters accounted for my identification and established that I was correct.

Mr McFee: They are not in sequence and agreement.

Robert Mackenzie: That is correct. In the bottom half, including the part from the internet form that was not shown on the police form, there were 21 features in sequence and agreement.

Mr McFee: So there were 21 on the bottom and how many on the top?

Robert Mackenzie: I said that there were 45 in total, but they were in clusters in the top. They were not second-level detail characteristics.

Mr McFee: Okay, there were 45 in total.

Mrs Mulligan: I will come back to Mr Berry. I listened to your opening statement about how much time you had taken to look at the print. It seems that you thought it was quite a complicated print, which you took some time to analyse. However, you mentioned in your evidence and again today that there is a 66° anti-clockwise movement of the tip of the thumb. Can you tell us how you can be so precise?

John Berry: Yes. The mark on the internet has—above the minefield, as I described it—the Rosetta characteristic, which is 130° with a dot on it. That is vertical from the top of the core. I then got the mark from the *Daily Mail* and drew a line from my Rosetta characteristic on that to the top of

the core. The angle is 66°. That is how I arrived at the figure.

Mrs Mulligan: This may sound silly, but did you get a protractor out and measure 66°?

John Berry: Of course I did. I used a protractor many times to measure the degrees of bifurcations. Remember that the Rosetta characteristic is about 130°. The average is about 170°, because it is little more than a rise from the horizontal. I used the protractor to gauge the angle of distortion at 66°. On the plain fingerprint of Shirley McKie that was circulated, the angle is 60°. In other words, there was slight movement when the *Daily Mail* print was taken.

Mrs Mulligan: The only other person who mentioned that issue was Mr Swann. Did you do the same thing?

Peter Swann: No. I saw Mr Berry's charts, which I can show you if you wish.

Mrs Mulligan: No. That is okay. We had heard the explanation twice but I could not understand where it had come from.

Peter Swann: Mr Berry is the one who worked it out.

Mrs Mulligan: Okay. So we are giving all the credit to Mr Berry.

Peter Swann: Yes.

Robert Mackenzie: Remember that I had not spoken to Peter Swann or John Berry at that stage, but when the internet image came along it gave me what is now termed the Rosetta characteristic. It was not shown on the plain impressions on the Strathclyde police elimination forms. Unknown to me, I identified the same characteristic from the internet form.

Mrs Mulligan: Mr Berry, you said that you found Mr Wertheim's statement about it taking 90 seconds to ruin 100 years of forensics to be an overreaction. Without wishing to be rude, you have a great deal of experience in this area. Have there been other disputes over fingerprints? Are you surprised that we are analysing this as we are?

John Berry: Actually, I am. As I told you, I find it amazing that, on a BBC Scotland programme, Mr Wertheim said, "Within a minute, I knew that this was not made by Shirley McKie." It had gone from 90 seconds at the trial to within a minute on a BBC programme. I could not understand it. I have to remember that he had seen the SCRO material that I had not seen, so it is quite possible that he made his decision based on that material, but the stuff that he posted on the internet was very varied. Fingerprints are my interest, but I was trying to work it out for months.

I do not know what to say about seeing the *Daily Mail* other than that people who turn religious see

a heavenly glow in the sky, which is what I felt when I read it first. I thought, "For goodness' sake—there's Shirley McKie's print. Superb." I really was thrilled. An old man like me might have had a heart attack. I have had one already; it could have been the second one.

Mrs Mulligan: For those who believe that there was a misidentification—even if we accept that—was this event so outstanding that it should have caused the furore that it has? Should the question of misidentification have given us the legitimate concern to question the Scottish fingerprint service?

John Berry: No. I have researched police forces all round the world on their standards of court production and I have to say that Scotland has the highest standard that is required before evidence can be given in court. I have been to court hundreds of times to give evidence. I went by myself; in Scotland, two experts go to court. In the McKie case, four experts were booked to do that; I understand that one was ill.

Secondly, there is the system of 16 points of comparison to which Scotland still adheres. About six years ago, England and Wales decided to have no standard. I think that the decision was based on the fact that, if a murder is committed, it is rather stupid to have someone say, "Oh, there are 15 and not 16 points on the scene of crime mark. I cannot go." In England and Wales, I believe that it was thought that many more people would be brought to court on fingerprint evidence using a non-numeric standard.

Thirdly, we have the fingerprint charts—members will probably have seen copies—which show the scene of crime mark and the fingerprint. In England and Wales, charts have not been published for several years; Scotland continues to use them. In my opinion, the strictures that are placed on the SCRO are so high that it is impossible for an erroneous identification to appear at court. That is what I believe.

Mrs Mulligan: I have one question for Mr Graham. In your opening comments, you said that you were asked to consider whether fingerprint Y7 had been transposed. What do you look for in such circumstances?

Malcolm Graham: Do you mean whether the print was transferred?

Mrs Mulligan: Yes.

Malcolm Graham: A fingerprint can be transferred only before powder has been applied. Fingerprints are difficult to see. You would lift a print from the site with adhesive tape, remove it and put it somewhere else. When you lift it with tape, you leave a tape sign. When you come to dust the print on a doorframe, for example, the

dust would adhere to the adhesive from the tape that had been left there. It is usually possible to tell that a print has been transferred.

So far as the print on the tin box goes, the box had been so well handled that any clear area would have looked very unusual. As the box had been completely handled, any mark that had been taken from it would have been very noticeable. I can say for certain that that had not happened.

Mrs Mulligan: The print had not been transferred.

Malcolm Graham: Definitely not.

Marlyn Glen: I want to ask about quality assurance. This morning, Mike Thompson gave us detail on training. My question is for Alan Dunbar. What was the quality assurance process in 1997? Have any changes taken place since then?

Alan Dunbar: Certainly. I took over the post in 1996. I think you heard from Mr Mackenzie that there was a dual role in training and quality assurance. What tended to happen is that the training part took over most of my duties. I had to second someone in so that two of us were doing training. In 1997, the procedures and practices were developing into what they are now. They have changed; they are very dynamic. We requested ISO accreditation from senior management in 1996. It was decided at that time not to go ahead because the Livescan system was going to be incorporated. It was decided that we would first bed that in, then go after ISO accreditation. We had started putting into place the rudiments of how the system is now with audits, practices, procedures and local work instructions. They were all there; they just needed to be formalised as they are now.

Marlyn Glen: We are considering the future and the action plan. You said that the process is dynamic. Do you envisage anything happening in the future to change things?

Alan Dunbar: Yes. ISO is good for the simple reason that it has changed in recent years. The new series is much more customer-based and continual improvement must be proved. Not only do customers have to be satisfied, but claims have to be substantiated. The series is customer driven and transparent, which can only be good for the service and what we try to provide.

Marlyn Glen: Thanks. That is helpful.

Stewart Stevenson: Are you familiar with the lithograph process, Mr Graham?

Malcolm Graham: I am not an expert on lithographs, so I will say no, but I know what they are.

Stewart Stevenson: I suggest to you that one could lift a fingerprint from one locus by using a

flexible silicone ball approximately the size of a tennis ball, which would create a lithograph master. The acidity that is associated with the sweat would create a particular formation on the surface of an appropriately treated flexible silicone ball; one could then spray ureic acid, which is essentially sweat, on to the ball. One might then be able to print a mark in a similar way to a finger on to other surfaces in a way that—short of doing DNA testing, which would clearly show the differences—might under some circumstances create a sufficiently accurate reproduction, which by the normal processes one would not readily detect had been lifted.

Malcolm Graham: I can appreciate that. The thing is, the box had no areas where material had been lifted off the surface. Are we talking about what could happen, in theory?

Stewart Stevenson: I am making a much more general point. I have no knowledge of and make no suggestion as to from where the print might have been lifted. I accept that, within the boundaries of the criminal investigation, the box would obviously be a possible source, but I am not making any suggestion about that.

Malcolm Graham: I can see that. The point is that only an expert could do that because, at that stage, the fingerprint would not have been developed. No dust would have been applied to it, so it would be almost invisible, unless it could be seen from an angle. It can be very difficult to find a fingerprint to lift—a lay person could certainly never do it.

Stewart Stevenson: On the other hand, I happen to know that my colleague sitting next to me has put fingerprints on the glass in front of her, which I could harvest when she leaves the room.

Malcolm Graham: Exactly.

The Convener: How did you know that, Stewart?

Stewart Stevenson: I did not; I made up the proposition on the basis of some knowledge. I did not say that it could be done.

The Convener: It sounds very clever.

Mrs Mulligan: On Stewart Stevenson's point, I have to ask—I do not expect any of the witnesses to answer this—whether that would have been possible in 1997.

Malcolm Graham: Yes.

Mrs Mulligan: Thank you, Mr Graham.

Malcolm Graham: But it did not happen.

Stewart Stevenson: I emphasise that what I said was absolutely a straw man. It was just a perspective.

Malcolm Graham: What Mr Stevenson referred to was part of our training. We would plant a fingerprint on an ashtray and give the scene of crime officers the ashtray to examine. They would look for signs that the fingerprint had been transferred on to the ashtray. That can be done, but under clinical conditions; it would be very difficult in a house.

17:00

The Convener: I would like a few points of clarification on your evidence. Where do we go from here as regards the action plan? In case Mr Mackenzie feels that he has not covered everything, I invite him to say a few words on behalf of the SCRO. I said to Mr Swann previously that he would have an opportunity at the end to say anything that was not covered.

Stewart Stevenson was pursuing a line of questioning with Mr Geddes about the top part of the print. You said to the committee that you could not compare the top right-hand side because you had nothing to compare it with. What did you mean by that?

Alister Geddes: Basically, I was working from the bottom half of the print. I was looking to go out and up to the top part. One would expect all the unique characteristics to occur in sequence and agreement. When I got to the top part, they were out of sequence. To carry out a full and proper analysis of that top mark, the relevant detail on the tenprint form belonging to Shirley Cardwell had to be visible, but it was not.

The Convener: That is what you said before. Why then did the SCRO not ask for another tenprint so that you could see that detail?

Alister Geddes: I believe there was a second form.

The Convener: Could somebody answer that question? I think that it is quite relevant.

Robert Mackenzie: The second form, as I understand it, came from an initiative, either from Strathclyde police or wherever—it was just an exercise, there was never any suggestion that the first prints were not good enough and that we needed another set of prints. The eliminations were confirmed on the material that we had.

The Convener: It seems to me that the issue about the top part of the print is quite important. You do not seem to give the top half the same weight as the bottom part for reasons that Mr Geddes has explained. It seems obvious to me that if you felt that you did not have something to compare it with, you should have got a print form with which you were happy.

Robert Mackenzie: At the time of the challenge—the extra comparisons and so on—I

was satisfied, and I presume that Mr Dunbar was satisfied, that the material that we had was sufficient to eliminate. To my knowledge, we did not consider asking for another set of prints.

Alan Dunbar: We did not request that.

The Convener: You did not think that that was significant enough to rule it out.

Robert Mackenzie: In my assessment, I recognised the disturbance and movement in the print. There was sufficient below the fault line, as I describe it, to eliminate conclusively.

Alister Geddes: I confirm again that my initial analysis highlighted the movement in the mark. That is an explainable difference.

The Convener: I noted that. I am quite clear about your explanation and have no issue with it. At the end of your previous evidence, you said that you had nothing to compare the mark with. My obvious thought was to ask why you could not have something to compare it with. Surely you could get another McKie print.

Robert Mackenzie: What we had was limited, in that the two rolled impressions that I saw were smudged, particularly to the right-hand side, but the plain impression was sufficient for me. The thought never occurred to me to ask for prints to be retaken.

Stewart Stevenson: On what basis can you say that the marks are out of sequence in the top half if you have nothing to compare them with?

Alister Geddes: Detail was present in the top of the mark that allowed me to work from the bottom to the top and to conclude that they were out of sequence. There was not sufficient detail on the tenprint form belonging to Shirley McKie to allow me to concentrate solely on the top part of the mark and carry out a full analysis. I had sufficient detail in the bottom part of the mark and the science of fingerprinting allowed me to come to my conclusion with sufficient quality and quantity of characteristics of identity.

Stewart Stevenson: I asked a rather simpler layman's question: how can you say anything about the top half of the print if you say that you did not have a tenprint with which to compare it?

Alan Dunbar: In essence, we were not trying to say anything about the top part of the print—

Stewart Stevenson: But Mr Geddes did—he said that points were out of sequence.

Alan Dunbar:—other than it was not a coincidence and we could see the fault line. The officers were not trying to give an example from the top part at that particular time. It was an elimination.

Stewart Stevenson: What, in that case, does the phrase “points out of sequence” mean in relation to the top half of the mark?

Alan Dunbar: Mr Wertheim and—

Stewart Stevenson: No—Mr Geddes used the phrase. I want to know what it meant when he used it.

Alan Dunbar: If you count in a straight line from the characteristics that Mr Geddes spoke about, they will never be in a constant sequence with the ones at the top because of the movement.

Stewart Stevenson: I am sorry—I am perhaps being dim, but let me continue. Are you simply saying that you cannot see the ridges continue in an unbroken sequence from the bottom of the fingerprint to the top?

Alan Dunbar: Yes. The scene of crime mark that was received from Strathclyde police had a broken line right across it.

Stewart Stevenson: I understand that, but when you use the phrase “out of sequence”, are you saying that because the lines from the bottom of the thumbprint cannot be seen to move across the width of the print to the top, there is a misalignment between the top and the bottom of the print? Is that all you are saying or are you saying something in addition to that?

Alan Dunbar: No. That is all I am saying.

The Convener: Are you saying that if you could have got an elimination print that had some movement in it, you would have been able to make a comparison? Is that what you mean when you say that you had nothing to compare the mark with?

Alan Dunbar: If we had fully taken the elim—if it had been completely rolled with no smudges on it—we may have been able to complete the comparison, but we were not able to do that.

The Convener: I just wanted to be clear about that.

Stewart Stevenson: You did not need rolled prints to do your job.

Alan Dunbar: Not on that occasion. We were happy to eliminate the mark.

The Convener: Is it the case that what Mr Geddes has outlined is generally the position of the other officers involved, so I do not need to ask how they identified the mark?

Alan Dunbar: Yes, but there is something that I would like to clarify. A few weeks ago, you were concerned about the absence of written-down procedures in the event that anything erroneous occurred. I wish to offer the committee a copy of the procedures manual in which such procedures

are incorporated. Everyone knows what the procedure is, but in this case it was not followed. There was no case conference because no one said that the print was not Shirley McKie's. There is a difference between saying that something erroneous was going on and saying that there were disagreements. There were no doubters.

Mr McFee: Were those procedures in place in 1997?

Alan Dunbar: Absolutely.

Mr McFee: We were told that no written-down procedures existed.

Alan Dunbar: Every officer knew what was going on. As you heard from Mr Macpherson, the only difference was that the matter was taken to the chief inspector, who was the head of the bureau at that time. Now the procedure is that it would come to me.

Mr McFee: There were written-down procedures in 1997.

Alan Dunbar: Yes—there was a memorandum. Let me clarify the situation. The procedures did not have the appearance that they have now. Now you go to a book, look up what you want to do and are told how to do the job. To find out about the detail of that job, you go to the work instruction, which tells you what buttons to press. That information was all there; it is just that it was not in the format it is in now.

We used to have briefing books for each team. The chief inspector would put out a memorandum describing the procedure that had to be followed. The memorandum was dated, but it was superseded by subsequent memorandums. We had a briefing file that everyone was expected to initial. People were aware of the procedures; it is just that the procedures did not look the same as they look now. There were procedures in place, so there has been some misunderstanding. I heard what Mr Ferry said.

The Convener: I thank you for clarifying that. If we need to examine the procedures manual, we will do so.

Alan Dunbar: Please do so; it is here.

The Convener: Can it be assumed that all the officers who went through the process found the same 16 characteristics in sequence, or might you have found different characteristics, given that Mr Swann found 21 characteristics? Is it the case that the 16 points of comparison might be different depending on the officer who identified them?

Robert Mackenzie: I imagine that there would be common ground, but it is not necessarily the case that everyone would have found exactly the same characteristics.

The Convener: Are there ever any circumstances in which you would have a conference about the points that had been identified by individual officers?

Robert Mackenzie: Yes—if there was any doubt about the identification.

The Convener: You would do that only if there was doubt about the identification.

Robert Mackenzie: Yes—so there was no conference in the case in question.

The Convener: Is there anything that you want to say to the committee about the action plan for the future and the proposed changes to the process?

Alan Dunbar: Yes. On a previous occasion, one of the ladies on the committee asked whether the action plan was really a 24 or 25-point action plan. The point was highly pertinent. It might have been Mrs Mulligan who brought the issue up. The plan might have had that number of action points in it at some stage, but no longer: there might be seven or eight things we need to do. We would always want to take measures that would result in improvements because we like to think that we are a professional organisation that moves forward. If anyone can give us suggestions, we will consider them and try to incorporate them into best practice.

However, I doubt that there are still 25 points on which we need to take action. We work to achieve improvements. I have seen many reports over the years and by the time they are published, we have often met a significant number of the recommendations. That was the case with the HMIC report. When the chief inspector of constabulary reported, we had already taken much of the action that he recommended. That is probably all I can say on the action plan.

Mr Macintosh: I have a final question that I want to put formally to the witnesses, in particular to Mr Geddes. A lot of publicity was given to the publication of the MacLeod report last week, but very little publicity was given to the publication of the Pass report, which was on another supposed misidentification by the SCRO. Mr Geddes said earlier that he was one of the officers who identified fingerprint QD2, which Pass subsequently confirmed. Will you explain your involvement in that case and describe how SCRO staff felt when the Pass report was published last week?

Alister Geddes: The Marion Ross case took place in 1997, the trial took place in 1998 or 1999 and the Mackay report was published in 2000. I had completed all the comparisons in the case in 1997, but I was unaware of any dispute other than on Y7. I found out about the issue in respect of

Q12 while I was sitting in my front room watching "Frontline Scotland". I found out about the issue with QD2 in 2005. That issue arose only because Shirley McKie placed it in her averments as another example of the SCRO's incompetence.

I was called to a meeting with Scottish Executive officials at Pacific Quay. They knew more than I did—my colleagues will bear that out—and they talked as if I knew what happened. I said, "Sorry. I don't know what happened." A report from two Danish examiners had said that QD2 was an erroneous identification. I had verified QD2, but that meeting was my first notification of that report. That is absolutely disgraceful.

In the course of that meeting with the Scottish Executive in 2005, I was asked to revisit the identifications that were in dispute. I was to make photographic enlargements because the charting PC had basically been shown to be a faulty machine. I went away and I worked on the photographic enlargements of Y7, Q12 and QD2. Pressure was put on us—"We need to have this material. Why are you not producing the material in double-quick time?"—by the Scottish Executive because the case was going to a Court of Session hearing.

I spent time on producing the enlargements, but I still have the QD2 enlargement because when I went back to the Scottish Executive I was told, "Oh, it's okay. That's no longer in dispute. Just forget it." How do you forget an allegation of erroneous identification? It is the most heinous crime of which a professional examiner can be accused. The blithe way in which people conducted themselves is disgraceful.

John MacLeod was responsible for doing that in the Sutherland case, which I was also involved in. He regretted his involvement. That was all. I got a phone call on Thursday night prior to the May bank holiday. On Thursday night, I was sitting at home when I was told that there was another allegation of erroneous identification. Such things are distressing.

The photographic enlargement that I am holding up is the standard that I produced for QD2. As members can see, it is a full-size enlargement. For the record, let me point out that it is uncropped. Nothing is hidden—everything is there to be seen. Alongside the photographic enlargement is my analysis of the mark. However, I was told to go away and forget it because the mark was no longer in dispute. That was all. I find that attitude disgraceful.

Mike Pass produced a report that supported the SCRO, but where is he? When John MacLeod gave evidence this morning, he said that he agreed with our analysis of the mark and he agreed that we had adhered to procedures and

processes, but he still made the giant leap to suggesting professional negligence. On what was that based?

The photocopy shows the standard that I adhered to in what I produced for the Sutherland case. Obviously, the photocopy that I am holding up is a poor photocopy, but it shows the standard that I produced. If Mr MacLeod cannot make an identification from that, his credibility on mark Y7 is, I am sorry to say, shot to pieces.

I was involved in both those cases, but I have been told to forget it because everything is all right now. The identifications have been accepted because Bruce Grant looked at one and said that it was okay and Mike Pass looked at the other and said that it was okay. I have been told, "Put it to the back of your mind now and move on. The Scottish fingerprint service is moving on."

I find that attitude shocking. We have had accusations of criminal corruption, malicious conspiracy and professional negligence. How are you supposed to move on when your professional integrity has been attacked? Mr Bayle runs to the media: "I've got another one." "Shut the bloody place down," he said live on "Newsnight Scotland".

17:15

The Convener: Mr Geddes, unfortunately this is our task. We are listening to what you are saying this afternoon. I am sure that you appreciate that this is an opportunity for you to give your views, as others have done, but we have to press you on how you move on. At the end of the day, we have some responsibility to make a contribution on how to restore the perception, let me say—

Alister Geddes: Let us have people adhering to a code of ethics first and foremost. The Council for the Registration of Forensic Practitioners has a code of ethics. Mr MacLeod is a member; most fingerprint practitioners are members. I do not see where the code of ethics says, "You independently come to a conclusion and then run to the media."

The Convener: Those points are noted and the committee may comment on the role of the media. Perhaps Mr Mackenzie wishes to summate the SCRO's position. One way or another, we have to move on from here. How do we do that?

Robert Mackenzie: If I can start on the media issue, we saw a headline about Mr MacLeod: "McKie expert gagged". It is not Mr MacLeod who has been gagged; all of the SCRO staff and others involved have been gagged because part of police procedures is that we are not allowed to speak to the press. For the seven years since Shirley McKie's trial, we have not been allowed to speak and we have had a battering in the press. At one of the first meetings we had with Mr Mulhern, I

asked whether there was any way in which the police organisation can learn from this. We need to move forward, but I do not want any other fingerprint officer or any police officer—anyone in the police organisation—to be put through what we have been put through. This is our first and possibly only opportunity to speak out. Tomorrow, we will be gagged again. That is a fact. I would be happy, and I am sure that the other officers would be happy, for the press to print my submission—which is on the internet and so on—in its entirety because it gives a picture that the public generally do not see.

I have written down a wee summary here. You mention moving on. Mr Mulhern has a real challenge ahead of him in integrating the Scottish fingerprint service, which has been described as being up there with the best in the world. We do not say that we are the best in the world. Anyone who does is going to be knocked down. The Scottish forensic science service is about to be created. Mr Mulhern admits to being surprised at the positivity expressed by many staff in the Scottish fingerprint service to forthcoming changes. Mr Mulhern also specifically apologised to me and quality assurance officer Alan Dunbar the day before Mr Mulhern appeared at the committee in April for the wording he had used in his submitted action plan, in which he had referred to the “misidentification”. That had naturally generated a high degree of anger among staff.

At least Mr Mulhern has recognised that he got that wrong. Basically, he has to pull together the Scottish fingerprint service. I—and I presume a lot of other people in the Scottish fingerprint service—want to move on, and we look forward to joining the Scottish forensic science service. If there are people in the Scottish fingerprint service—in any of the four bureaux—who do not want to move on, that is their decision, but I look forward to joining the other bureaux and the laboratories in the Scottish forensic science service.

The Convener: You are in favour of that, then.

Robert Mackenzie: Absolutely. The more departments the police can pull together, the better. Basically, our job is to compare tenprints with tenprints, or marks with tenprints. That is it. We give that information to the police, who give that to the fiscal. We provide intelligence to the police and to the fiscal. End of story. If we consider the rhetoric in the presentations at the Court of Session, Zeelenberg, Bayle and so on all overstepped the mark. There are people in Aberdeen and Edinburgh who overstepped the mark. I have no problem with someone having a different opinion—we cannot all be right—but when you overstep the mark and you get into rhetoric, that is a different ball game.

Stewart Stevenson: I understand what lies behind some of the remarks that have just been

made, particularly given the fact that accusations of criminal activity and professional misconduct have been made. However, I would like to confirm that it is the view of the profession of fingerprinting that, while you seek, with honest endeavour, to be correct on each and every occasion, you are unable to eliminate error from your processes—like every other profession—and that, therefore, there will be occasions when it is possible that you are wrong. I ask for that clarification because I got the impression that that possibility was being excluded and I think that it would be useful and confidence building to hear that you accept that it is possible to be wrong.

Alan Dunbar: We recognise that. That is why we have checks and balances in place. In fact, we learn more from mistakes than we learn from the things that we get right. Particularly in the west of Scotland, we are good at tearing our mistakes to bits. It would be nice to turn round and say that that is what happened in this case, but it is not.

Stewart Stevenson: I knew that you would accept that you can make mistakes; I just thought that it was important to have you say it on the record. If you fail to acknowledge the possibility of error, you damage your overall credibility.

Robert Mackenzie: Everybody makes mistakes.

The Convener: Mr Swann, you asked to make an opening statement and were told that we do not do that at this committee. However, I said that you would be given a minute or so to summarise your evidence. You may do so now.

Peter Swann: I, too, have been charged with misconduct by the McKie family. However, the organisation realised that the family were telling a pack of lies. Without going into all the details, I can say that, at that juncture, Professor Ebsworth, the chairman, withdrew all of the allegations. We have moved on, but that is what happened.

All of the charts that I issued to the committee a fortnight ago, or whenever it was, are accurate. If they were not, I—a person with 49 years of experience—would not have released them in the first place. They are accurate and back up everything that Mr Geddes, Mr Mackenzie and Mr Dunbar have said this afternoon. They are an accurate reflection of the ridge details or characteristics—call them what you will—on those marks appertaining to the Marion Ross murder. The one that Mr Geddes showed you on the £10 note is in there as well, with all of the characteristics marked out.

Listening to Mr Zeelenberg, Mr Wertheim and so on, I am convinced that Mr Wertheim, Mr Zeelenberg, Mr MacLeod, the Aberdeen three, as I call them, Mr Bayle and whoever else have not looked at the right material and have not made the correct comparisons. They have not had the right

material that would enable them to make the correct comparisons with the marks at the tip of the thumb. If they cannot make a full and complete comparison, how on earth can they put forward a view about findings of identity or non-identity? In my opinion, their evidence is worthless.

Listening to Mr Zeelenberg, Mr Wertheim and so on, I am amazed—as are the gentlemen around me—at the things that they say. All this business regarding 80 to 100 sets of impressions is ludicrous. Whether that was done, I would not know. Why do you do that? You do not do that. Mr Zeelenberg—with his colourful charts and his exposé regarding my presentation—has got it wrong. He is trying to portray things that you do not do. You do not do drawings of fingerprints. All that you need is a good, clear copy—actual size or an enlargement—of the mark in question and a good, clear copy of the donor's fingerprint form. That is it. You compare and examine the images and find the details that are in agreement until you are satisfied as to identity. End of story. You do not need computers or anything like that. That just brings something into the arena that is totally unnecessary and confuses the issue. Certainly, the people who are confused are not we who are sitting at this table but Mr Zeelenberg, Mr Wertheim and so on.

The Convener: I thank all the witnesses who have attended today. We appreciate the pressure that the SCRO has been under these past few years. I hope that our witnesses feel that they have had an opportunity to say what they wanted to say.

Alan Dunbar: Could I make a final statement?

The Convener: I said that Mr Mackenzie would be making the final statement. I am not letting everybody make a final statement. Mr Dunbar, you have 30 seconds.

Alan Dunbar: I ask the committee to consider the effects on the staff at the SCRO, particularly the eight officers who have appeared before you. I am talking not only about the impact on their working lives but about the effect that all of this has had on their partners, families and private lives.

Miss McKie was found not guilty of perjury, ergo we all had to be guilty of something. Thanks to the McKie camp and certain sectors of the press and media, we—all of a sudden—became liars, conspirators and criminals. A small number of MSPs who would sell their souls for a soundbite then threw logs on the fire. To round it all off—and this is the worst part—the SCRO, ACPOS, the Crown and the Executive have behaved like rabbits caught in the headlights and have not handled the situation at all well. What is disappointing about that is that those groups make

up the system in which we worked and in which we believed. The only thing that the SCRO officers are guilty of is telling the truth.

The Convener: Thanks. Once again, I say that the committee appreciates the pressure that the service has been under. I hope that you think that you have had an opportunity today to air your views. We thought that that was important. This meeting has probably been the committee's longest ever, as we have been sitting for more than six hours.

I am sure that we will need to clarify certain points when we draw up our report. I assume that we will have the co-operation of everyone around the table in that event.

I thank all of our witnesses for their candid and excellent evidence.

17:26

Meeting continued in private until 17:50.

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