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Wednesday, 28th October 2009

(Morning session)

(10.00 am)

HUGH MACPHERSON

Examined by MR MOYNIHAN (continued)

MR MOYNIHAN: Good morning, Mr MacPherson.

A. Good morning.

Q. I have already been causing confusion by referring to you on the Inquiry Team as Mr Mackenzie so I do apologise in advance if I give you the wrong name.

What I wanted to do before returning to the chart that you prepared and spoke to yesterday afternoon was to take a step back and look at this in a fairly elementary way. In fact, I've got notes written in front of me here that end up having 12 steps before I get back to where I probably was yesterday afternoon, but if we take these 12 steps and see how we progress.

The first step it seems -- and these are all just things for you to comment on -- is that fingerprint evidence identifying individuals in a court context in particular proceeds from the premise that the fingerprint is unique; barring injury, it's constant through life?

A. That's correct, yes.

Q. However -- second proposition -- that proposition

1 strictly in fact applies to, firstly, a three
2 dimensional pattern?

3 A. Yes.

4 Q. Secondly, literally in the flesh?

5 A. Yes.

6 Q. Point number 3 is that the comparison exercise that you
7 as a Fingerprint Examiner undertakes, first of all, you
8 do not study the finger in the flesh?

9 A. Correct.

10 Q. Even what you have is not three dimensional; it is a two
11 dimensional?

12 A. It is two dimensional yes.

13 Q. Point number 4, that in fact what you are doing is
14 studying two two-dimensional images or impressions, each
15 more or less partial?

16 A. That would be correct. Even a ten-print form is not the
17 full gambit(**sic**), if you like, of the digits.

18 Q. Even a ten-print form itself is two-dimensional?

19 A. Yes.

20 Q. Point number 5: in the flesh, the characteristics may be
21 constant throughout life but --

22 A. Yes.

23 Q. -- in fact, point number 5 is that the characteristics
24 are not static or stable in deposition; that is, they
25 can vary in the impressions depending on a number of

1 factors, such as the manner of deposition?

2 A. Yes, if you're referring to pressure, deposition
3 pressure.

4 Q. Yes.

5 A. Obviously, in some of the ridges there are a series of
6 pores. From those pores there's a continuous discharge
7 of sweat. Any receptive surface that's touched retains
8 that latent impression. It's almost like an invisible
9 ink. Obviously, what we use for identification purposes
10 are the ridges which stop, start, bifurcate and join in
11 a myriad of numbers in a small area and, obviously,
12 that's the Scene of Crime Officer's job. He comes
13 along, he can either dust the area as has been done here
14 and lift it by means of adhesive tape or he can
15 photograph, as mark Y7 was done, in situ after being
16 dusted by black powder.

17 So on the one hand you have a chance impression from
18 a crime scene and on the other hand you have either
19 inked impressions or we now have since 1997 the
20 electronic capture of fingerprints or I should also add
21 I think I mentioned yesterday about the deceased Marion
22 Ross, her fingers would be dusted by means of black
23 powder and with the use of white tape the impressions
24 are lifted and then a vinyl is placed on to it. So
25 there's many different ways of capturing a chance

1 impression and obviously fingerprints.

2 Q. What I am meaning by the characteristics not being
3 static is that depending on the pressure and the form of
4 deposition, the movement involved --

5 A. Movement, yes.

6 Q. -- what is a ridge ending may in fact appear to be a
7 bifurcation?

8 A. Yes.

9 Q. And indeed vice versa?

10 A. Yes.

11 Q. As you say, a crime scene mark is indeed a chance
12 impression?

13 A. A chance impression.

14 Q. But, indeed, even a police impression has an element of
15 chance in that if one takes a range of impressions and
16 puts them side-by-side, they will have variations in
17 them. Some will show, for example, a characteristic as
18 a ridge ending, some will show it as a bifurcation?

19 A. Yes, as I was talking yesterday about appearances, yes.

20 Q. That is right. So what I am trying to do is look at it
21 in a fundamental way. The appearances may alter
22 because, in fact, the fundamental principle here is that
23 the characteristics on deposition are not, in fact,
24 constant, they are not static?

25 A. I would agree with that, yes.

1 Q. Accordingly, point number 6 of this step is that when
2 you are carrying out a comparison exercise, you are
3 looking at, therefore, two impressions?

4 A. Yes.

5 Q. Each of which -- each of which -- may be variants on the
6 impression in the finger?

7 A. Yes.

8 Q. Point number 7 is that one of the challenges to this
9 Inquiry is, depending on the number of impressions used
10 by examiners, we in fact factor in the potential for
11 more and more variants, even assuming that we're looking
12 at the same finger.

13 A. Yes.

14 Q. Point number 8 then is that an examiner, when he's
15 reaching a conclusion, because he's looking at a minimum
16 of two variants, is in fact himself trying to decide if
17 he can reconcile those variations consistent with a
18 match?

19 A. Yes.

20 Q. Or cannot reconcile those variations resulting in a
21 conclusion of no match?

22 A. Correct, yes.

23 Q. We may have just slightly lost a breakdown of these, but
24 in trying to reconcile the variations, would you accept
25 that there comes a point when an examiner, based on

1 skill and experience --

2 A. Yes.

3 Q. -- nonetheless has to make assumptions?

4 A. Assumptions based on your skill, training, experience,
5 knowledge, yes.

6 Q. Back to my notes -- I may have broken down point number
7 8 into two but I am now at point 9 of my notes. What
8 you are, in fact, then trying to do is to reconcile two
9 variants based on skill and judgment involving
10 assumptions, but you do not know the true configuration
11 of the mark in the flesh?

12 A. All I can say is this is where your seven years of
13 training comes in. You talk about assumptions, but you
14 have to be definite in your own mind that what you're
15 marking or what you're seeing is correct.

16 I agree what you are saying, variations, but you
17 have to be satisfied. I was always taught any
18 comparison that you make (elim, AFR, suspect), you can
19 end up in court and you have to be able to justify that.

20 Q. Yes, but I am just looking at it in a very elementary.

21 One of the challenges is you are looking at two
22 variants and because you don't have a finger right in
23 front of your eyes, you don't know which of the two is
24 closer to the true?

25 A. No, you don't, no.

1 Q. In a sense, if one is driving along in a straight line,
2 one can go to the right or to the left and one knows
3 that once to the right of the left of a straight line if
4 the dual carriageway, for example, is still there, but
5 here in your lab when you're looking at a fingerprint
6 you don't know what the straight line is. You don't
7 have a finger in the flesh?

8 A. That's what I was trying to say yesterday, that the
9 training now is down to, say, two years. The only thing
10 for me that keeps you adept and keeps your expertise
11 current is by having a heavy workload and looking at
12 thousands upon thousands upon thousands of comparisons.

13 Q. This is me on to my proposition number 10 now: if I look
14 at it, particularly in a complex mark, and I am asking
15 an examiner to look at a series of features and he works
16 out, goes round the clock from a starting point, he is
17 making a number of assumptions as he goes and will form
18 an overall conclusion at the end of that process of
19 reasoning following how many points are necessary to
20 form that conclusion.

21 A. But unless these characteristics are in sequence and
22 agreement, you can't make the identification.

23 Q. But do you accept -- this is now proposition 11 -- that
24 two examiners, each fully competent, acting in good
25 faith, as they progress through the analysis, making the

1 assumptions, can in fact end up in a complex mark,
2 because they have made a complex series of assumptions
3 as they proceed, can in fact end up with two
4 diametrically opposed or mutually inconsistent mental
5 pictures?

6 A. I would hope not but can I give you an example? After I
7 had come back from being suspended in May 2002, some
8 times after that we were allowed to do the full remit of
9 a expert's duty, bar basically going to court. We could
10 still make identifications, et cetera. So on one
11 occasion I had a left thumb, funnily enough, which I
12 searched on the automated fingerprint recognition
13 system. I identified this thumb and it then went to
14 two -- well, I remember it went to one further examiner
15 and he basically -- I could say I was happy I could see
16 16 in it. I went to another examiner and he decided
17 that it was basically insufficient, you couldn't make
18 the identification.

19 At that time there was what was called the
20 Director's Ruling. I can't remember which director
21 brought it in but anyway there was a Director's Ruling
22 that if one examiner decreed that a mark was
23 insufficient, basically you couldn't tell who the donor
24 of that mark was, if it was insufficient it stopped
25 there. So that's what happened in that occasion. This

1 person's a fully trained officer but he couldn't see
2 what I could see. Funnily enough, it was a Mr Greg
3 Padden that stopped the identification. I still have
4 the enlargements if the Inquiry would like to see them,
5 when I was clearing out my desk in March 2007 I must
6 have brought them home with me. I still have those
7 enlargements. I don't know if they would be of any
8 assistance to the Inquiry. But there you have -- I
9 don't know if that's an example of what you're talking
10 about, but I could see -- I had assessed the mark,
11 searched it on the AFR, identified it on the automated
12 fingerprint recognition system but another officer
13 deemed that it was insufficient. So I don't know if
14 that answers your question.

15 Q. It does in part because, if you will forgive me, that
16 takes me one step on to this.

17 First of all, before we get to that point where
18 there is a disagreement between the officers, first of
19 all, because it is a complex series of assumptions being
20 applied, you can at least conceive of the possibility
21 that two officers would arrive at the same conclusions
22 so they would be in agreement --

23 A. Yes.

24 Q. -- but, in fact, each would have a radically different
25 mental picture of the match?

1 A. Absolutely, yes.

2 Q. I will come back and look at that because this is where
3 your Mr Padden example falls into place.

4 It would follow, therefore, in such a process that
5 it might not take much more of a change of assumption to
6 have two officers who not only have different mental
7 pictures but, in fact, have different conclusions?

8 A. With regards identity, I would hope that wouldn't happen
9 but ...

10 Q. Since, unfortunately, hope and experience tend to part
11 company in courts and legal proceedings, do you admit of
12 the possibility that as one follows the pattern and
13 makes assumptions, first of all, two officers may at
14 some point diverge but nonetheless arrive at the same
15 conclusion?

16 A. Yes.

17 Q. Equally, two officers might diverge and, in fact, end up
18 with opposite conclusions, one saying a match, the other
19 saying not?

20 A. I've never had that experience.

21 Q. Well, perhaps never had that experience until Y7?

22 A. Correct.

23 Q. Let us then look at that. Let's begin with someone who,
24 if I understand it correctly, works in a similar sort of
25 way to you in relation to this. If I understand your

1 charting yesterday, what you did was start at a certain
2 point, the arrow that you described in Y7?

3 A. Yes. Well, that was just for the sake of yesterday's
4 demonstration, yes.

5 Q. But you start at a point and, in a sense, any journey
6 has to have a point of departure?

7 A. Yes.

8 Q. Your point of departure is the arrow?

9 A. Yes.

10 Q. You then count down and around ridges and end up
11 building up an overall pattern?

12 A. That's correct, yes.

13 Q. You would trust that what you produced yesterday was
14 consistent with the charting which you did for this
15 Inquiry?

16 A. I would hope so, yes. I haven't -- I mean, I would be
17 quite willing to mark the characteristics from my
18 charting here and mark them on the demonstration I did
19 yesterday.

20 Q. If you will forgive me because, again, as I have said to
21 you before, we're not in the realms of hope we are in
22 the realms of expectation. What you have just suggested
23 is something I have asked that you be asked to do in the
24 fullness of time because, speaking for myself, I have
25 found it difficult simply because the points that you

1 have marked are not numbered so, therefore, I found it
2 difficult to do a direct comparison.

3 A. Well, that will be fine. I will try and do that.

4 Q. I will leave that aside. You would trust or hope that
5 your charting of yesterday is consistent with the
6 comparison exercise charting, yes?

7 A. Yes.

8 Q. Indeed, consistent with the chartings that were produced
9 for the criminal trial?

10 A. Well, I think when you asked us to do the comparative
11 exercise you asked us to replicate what we had marked
12 for the -- I can't remember, was it both trials? Yes.

13 Q. Let us just be clear about that because there's a
14 question of other images. As I have said, the whole
15 process becomes more complicated the more variants we
16 actually have to look at.

17 Let us just look at the comparative exercise. If we
18 bring up on screen FI0167A, which I think is to your
19 left just now so you can look at the original if that
20 assists you. FI0167A.

21 This is something we have seen on a number of
22 occasions but we have not yet had an opportunity with
23 one of the witnesses involved in this process just to
24 get confirmation.

25 First of all, so far as the provenance of these

1 items are concerned, are you aware and can you confirm
2 that the image on the left is an image, in fact, that
3 replicates what you had available to you in
4 February 1997? That is the image that has the
5 manuscript notes on the back of Y7?

6 A. I believe it was from the negative of Y7.

7 Q. So you believe -- and that is my understanding as
8 well -- it is from the negative of the Y7 which has the
9 manuscript notes on the back, which for us is PS0002?

10 A. I believe so.

11 Q. The image on the right, the thumbprint of Ms McKie,
12 would it be consistent with your understanding that that
13 is taken from the police form obtained on
14 6th February 1997, which is ST0004H just for the
15 reference?

16 A. You gave them to me so I'm taking your word for it that
17 that's ...

18 Q. This is what I want you to confirm, Mr MacPherson: not
19 only did I give you those, in fact what I gave you was a
20 selection of images and asked you and your colleagues --

21 A. Yes, you did.

22 Q. -- to select from among the range images of quality that
23 you were satisfied with?

24 A. Yes.

25 Q. In fact, what the exercise has done is taken us back, as

1 best we can, because we can't re-mark PS0002H, the
2 photograph of the markings, we have gone back to the
3 negative of that very photograph.

4 A. Was it a negative of the photograph? Was the photograph
5 photographed?

6 Q. No, it was a negative of the photograph and we have gone
7 back to the actual print form.

8 A. Yes.

9 Q. So what we see on the screen is, as best one can, and
10 you have it in photographic form to the left, what you
11 have been looking at under your linen glasses in
12 February 1997?

13 A. Yes.

14 Q. So that is the provenance of these documents.

15 A. Yes.

16 Q. Let us then look at something else because what I want
17 to do is to focus on points 15 and 16 as charted and
18 point 3.

19 15 and 16 are easier to see, at least to my eye at
20 any rate (which is untrained), in Ms McKie's print. 15
21 and 16 --

22 A. Yes.

23 Q. -- are what we have come to call, with Mr Wertheim's
24 American assistance, the handshake.

25 A. Yes.

1 Q. 15 and 16 are to the right, two ridges away from point
2 number 3?

3 A. That's correct.

4 Q. Two ridges away and to the right of point number 3?

5 A. Yes.

6 Q. If I can bring up, please, Mr Leadbetter's charting and
7 if we just put this one to the side just now, TS0005.28,
8 and I will begin by enlarging again a different
9 thumbprint of Ms McKie.

10 First of all, what I want you to concentrate on is
11 what he has marked as points 13. It would seem on this
12 image a small lake?

13 A. Yes.

14 Q. And 14?

15 A. That's the ridge ending up.

16 Q. A ridge ending?

17 A. Yes.

18 Q. Would you agree with me as marked by him those are to
19 the left and, in fact, below what I would understand to
20 correspond to SCRO point 3 where my cursor is just now?

21 A. That's correct.

22 Q. 15 and 16 are those on the ridge ascending up from point
23 number 13 to a position just between lines 10 and 11
24 where my cursor is just now (**indicated**)?

25 A. Yes.

1 Q. So, again, separated by two ridges to the right of the
2 SCRO point number 3?

3 A. Yes.

4 Q. Then let us look at his charting. Point number 13 he
5 charts as being on the ridge above what SCRO mark in Y7
6 as point 3?

7 A. Can you just repeat that again, Mr Moynihan?

8 Q. Point number 13, he charts as being on the ridge
9 ascending from the bifurcation which SCRO mark as number
10 3?

11 A. That would appear to be correct, yes.

12 Q. Point number 14, he marks on the ridge adjacent and to
13 the left of point number 13?

14 A. Correct, yes.

15 Q. Let us bring it up as Mr Zeelenberg sees it, it is
16 simply a little bit clearer to follow, AZ0061 -- instead
17 of the one on the right -- slide 131. It may be better
18 in PowerPoint, actually.

19 All that Mr Zeelenberg has done is taken a better
20 image of Y7 and he's replotted Mr Leadbetter's points so
21 that we can now clearly see -- can you confirm this by
22 comparing -- that Mr Leadbetter has somehow on the right
23 taken features which were to the right and below SCRO
24 point 3. He's moved them to the left and up to the
25 point where point number 13 is above?

1 A. Is above point 3, yes.

2 Q. Point 3, and 14 is to the left?

3 A. And 14 is to the left, yes.

4 Q. By that same process, since points 15 and 16 (the
5 handshake) are on the same ridge as his point number 13,
6 he would accordingly place 15 at the two dots that
7 Mr Zeelenberg has marked on the ridge ascending from
8 point number 3. Correct?

9 A. That's Mr Leadbetter's interpretation; it's not mine.

10 Q. Is Mr Leadbetter correct?

11 A. He disagrees with what I or what we have basically
12 plotted.

13 Q. So if you are right, Mr Leadbetter is wrong?

14 A. I have to say yes.

15 Q. You have to say yes.

16 Is Mr Leadbetter a man of competence?

17 A. Absolutely.

18 Q. Acting in good faith?

19 A. Yes.

20 Q. And yet he would have, if I simply look at this, a
21 radically different mental picture of Y7 than you have?

22 A. Yes.

23 Q. He has reached the same conclusion?

24 A. He has, yes.

25 Q. I would suggest it might not take much for another

1 expert of equal competence acting in good faith to look
2 at that and say these are just not a match because the
3 handshake (15 and 16) is not in the position on
4 Ms McKie's fingerprint that Mr Leadbetter tells us it is
5 in Y7?

6 A. Well, all I can say is it's his interpretation. He was
7 here so he has given his explanation to it. It doesn't
8 accord with my interpretation of the mark.

9 Q. I will stop it there in a sense, Mr MacPherson, just
10 with this one because what I am actually trying to
11 understand is because we saw, we actually witnessed
12 Mr Leadbetter do this, he proceeds round a clock from
13 his point number 1, counting ridges and, by implication,
14 making assumptions. He can follow his ridge count all
15 the way round to point number 14 and if you are correct,
16 let us proceed on this basis, if you are correct then,
17 intending no disrespect -- I am not questioning
18 Mr Leadbetter's competence nor his good faith -- he has
19 deviated at some point because he has ended up with
20 points 13, 14, his 13 and 14, your 15 and 16, in
21 positions that are mutually inconsistent compared to
22 yours?

23 A. Correct, yes.

24 Q. Can we take it then that it might be that someone like,
25 for example, Mr Grigg, will he start from a certain

1 position, counts ridges, might with competence and in
2 perfect good faith arrive at a mental picture which is
3 so out of match with your mental picture that he's off a
4 little bit further than Mr Leadbetter in the argument.
5 He's saying not only are these variants that
6 Mr Leadbetter says, "I can ignore them because of
7 movement; I'm happy to agree", Mr Grigg might say, "I've
8 actually had to make some turns here on this process
9 that just mean I am not matching. There's something
10 discordant here".

11 Do you understand that?

12 A. Yes, well I think Mr Grigg mentioned that he couldn't
13 see the lake in our charting, which is points 10 and 11,
14 but obviously that's a divergence there and I just don't
15 agree with it.

16 Q. We will see as we look whether that is a critical point.
17 What I am just trying to do is to understand -- this is
18 the reason for the simplicity of this -- the process of
19 reasoning. Because it has assumptions we can take
20 Mr Leadbetter as, if you like, as a middle figure. He
21 can have different assumptions from you. They must be;
22 is that correct? They must be different assumptions?

23 A. Yes.

24 Q. A different mental picture it is, yes?

25 A. Yes.

1 Q. Radically different mental picture from you?

2 A. Certainly with those points anyway, certainly, yes.

3 Q. Yet he is prepared, despite those variants and -- I will
4 avoid the word differences -- despite those variants he
5 is prepared to agree?

6 A. Yes.

7 Q. It might not take much, I would suggest, for an expert
8 of equal competence and equal good faith, simply to say,
9 "There is one of these variants, one of these
10 assumptions, somewhere along this way that makes me
11 depart from Mr MacPherson to the point that I'd say
12 stop, this is not a match"?

13 A. Well, that could be his opinion but this is the problem
14 where you have very, very poor quality marks such as Y7.

15 Q. If I may, I would suggest just as a conclusion to this
16 particular simplistic approach, if I am trying to
17 understand what it is about complex marks that gives
18 rise to this risk, it is, I suggest, that the
19 assumptions that the expert requires to make are more
20 challenging because the detail in the mark is less
21 secure?

22 A. Yes.

23 Q. If I can then, before we look at Mr Grigg, can we just
24 look at some of the things about your charting
25 yesterday. I am in fact going to concentrate, I hope,

1 use of that word really on the comparative exercise
2 material for a reason I will readily explain just now.

3 Because I have said the more images we use the more
4 complications we have of variants being thrown up, I
5 want to step back and look at you, Mr Grigg and others
6 on the same material so that the complication of image
7 quality is removed.

8 Do you understand?

9 A. Okay.

10 Q. What I want to do is to look at the images that you used
11 yesterday. If I understand correctly, the image of Y7
12 is TC2310.03. That is the image you have of Y7.

13 A. That's correct, yes.

14 Q. With the dots and the green lines drawn in?

15 A. Yes.

16 Q. As I have said to you, in the fullness of time I will
17 ask you, please, to apply numbers to the dots because it
18 is quite challenging.

19 So far as Ms McKie's fingerprint is concerned, I
20 understand that the marked equivalent is TC2310.04 so we
21 can bring them up as a pair and perhaps one above the
22 other for once.

23 What I have brought up are the two chartings but
24 with the complete markings of yesterday; is that
25 correct?

1 A. That's correct, yes.

2 Q. Let's not go over what we discussed yesterday.

3 The top one is a copy of a Mr Kent image. The
4 bottom is a reproduction of a section from a
5 reproduction by Mr Swann, his chart M?

6 A. Correct, yes.

7 Q. What I am interested in is looking at image quality.

8 First of all, unless one actually looks at the door, one
9 would not know what the true image is of Y7?

10 A. How do you mean "the true image of Y7"?

11 Q. If I have, as I have, a number of different photographs
12 of Y7 all I can say is that they're different. No-one
13 can tell which is the truer image of Y7 without looking
14 at the doorframe.

15 A. Well, we normally didn't look at -- all we would receive
16 is either the lifted impression or the photographed
17 impression. Yes, looking at the doorframe might give
18 you a hint as to orientation, et cetera.

19 Q. Mr MacPherson, it is no more than this: one of the
20 challenges that has beset this particular debate is the
21 one could paper the walls with photographs of Y7 and
22 paper the walls to no purpose because one wouldn't know
23 which is the correct image.

24 A. Well, the best for me would be from the original
25 negative. I think at the time of the civil hearing --

1 Q. Mr MacPherson, if I just top you then. The best one is
2 not the one at the top?

3 A. Right.

4 Q. That's correct? It's not the one at the top here?

5 A. No, that's Mr Kent's image, yes. All I was saying was
6 the hearing that never took place in February 2006, when
7 Shona Bathgate came -- we had to do further enlargements
8 of Y7. Unfortunately, the negative, the original
9 negative of Y7 was not available and we had to prepare,
10 I think it was a photograph of a photograph. I could be
11 wrong about that but that's what I remember. So for me
12 the best image would be from the original negative.

13 Q. That is what you understand we have and that you have
14 used in the comparative exercise?

15 A. Yes.

16 Q. All I am saying is it is not the one on the screen?

17 A. Not that one, no.

18 Q. Equally, so far as the one on the bottom is concerned,
19 that is a reproduction by you of a reproduction by
20 Mr Swann of a fingerprint from Ms McKie?

21 A. Correct.

22 Q. Have you looked at and studied the blue inked original?

23 A. I haven't, no.

24 Q. I suggest that the best fingerprint to use in this
25 exercise would be an inked, since this is the period of

1 inked originals, taken by the police?

2 A. Well, sometimes you would get elim forms in that were
3 very, very poorly taken. The best fingerprint forms in
4 my experience that we used to get was from the
5 Identification Bureau of Strathclyde Police because they
6 basically took fingerprints day in and day out and they
7 were the best images.

8 Q. Is there anything wrong with the fingerprint forms that
9 you were supplied with by Strathclyde Police in
10 February 1997?

11 A. No. As you see, that's one that I used there; so no.

12 Q. This is why we will come back in the fullness of time to
13 what I would suggest to you is a secure basis of looking
14 at a photograph derived from the original negative of
15 the photograph you looked at side-by-side with the
16 photograph derived from the original police form that
17 you looked at.

18 A. Okay.

19 Q. Let us just follow this through. If I begin with the
20 Kent image at the top -- and I will try and keep this
21 relatively brief -- first of all, would you accept from
22 me that one of the reasons that one has to ask you to
23 mark this is that the banana does not appear as
24 prominently in this particular image as it does in
25 others?

- 1 A. I can still see it, yes.
- 2 Q. I don't disagree that you can still see it but it's not
3 as prominent. It's a little bit faint at the top where
4 it might otherwise be joining the tree?
- 5 A. Possibly, yes.
- 6 Q. But this particular image, the Terry Kent image, there
7 is marked by you an incipient, a prominent incipient,
8 between the two descending ridges forming the banana?
- 9 A. That's correct.
- 10 Q. What I want to do, because I don't want to lose this, I
11 am going to mark that with an arrow. I am going to stay
12 clear of the legs of the bifurcation. So my blue arrow
13 marks that incipient (**indicated**).
- 14 A. Correct.
- 15 Q. It would seem to the naked eye to be rather prominent
16 incipient occupying a good proportion of the space
17 between the two descending legs of the bifurcation?
- 18 A. Yes.
- 19 Q. If I understand it correctly, what you do in the McKie
20 print reproduced from Mr Swann is mark again an
21 incipient -- I steer clear of the ridge -- it is
22 opposite the point of my arrow, two red dots
23 (**indicated**)?
- 24 A. Correct.
- 25 Q. Such is the prominence of that incipient, is it a detail

1 you would expect to be observed in an ACE-V comparison?

2 A. The problem with incipients is that they don't always
3 show in the both impressions. They are immature ridges
4 which lie below the surface of the main two ridges and
5 depending on the pressure, et cetera, they may be
6 recorded; they may not be recorded.

7 Q. Such though is the size of this incipient in the Terry
8 Kent image, would you expect to see such an incipient in
9 a fingerprint form taken by the police under controlled
10 circumstances?

11 A. If there's a lot of pressure in the mark from the crime
12 scene, it may show in the mark but it may not show in
13 the controlled impression that you talk about.

14 Q. Do you know if this incipient is to be seen in any of
15 the police forms?

16 A. I couldn't tell you. I don't know without looking at
17 them again.

18 Q. Firstly, if we could save this image, please.

19 MISS BAHRAMI: That's saved as FI2810.01.

20 MR MOYNIHAN: In the bottom, please, if we could bring up
21 ST0004H and if we proceed through and I will tell you
22 when to stop. Stop there. Sorry, the preceding one.

23 The left thumb is in the bottom of this particular
24 image and is, in fact, the image you have on the screen
25 beside you. It is quite difficult to blow it up too

1 much. You have the photographic original beside you.

2 Can you confirm for me that the incipient is not
3 marked on that print?

4 A. No, it doesn't show.

5 Q. It does not show?

6 A. No.

7 Q. Just while we are there, if I go back to the Kent image
8 at the top, below the right leg of the banana towards
9 the bottom of where it's dark you have marked a second
10 incipient, a second incipient off the right leg of the
11 banana. Is that correct? I will show you it with a
12 green arrow (**indicated**). You have marked a second
13 incipient off the right leg of the Kent image.

14 A. That's correct, yes.

15 Q. It is not on the comparative exercise image, ST0004H?

16 A. At point 6 on the comparative exercise one there's a
17 slight bulge to the left which could be taken as what is
18 marked here but it's certainly not as strong.

19 Q. Okay. So that's a possibility but not as strong. If we
20 can save that pair of images just now, please.

21 MISS BAHRAMI: That's saved as FI2810.02.

22 MR MOYNIHAN: Thank you.

23 In the bottom could we bring up now DB0008 and we
24 will have to scroll through to the same fingerprint form
25 in it.

1 Again, what I will do, Mr MacPherson, is bring up,
2 again, Ms McKie's left thumb. The quality may begin to
3 deteriorate, in fact perhaps the quality of this one is
4 just not adequate for this particular purpose. In fact,
5 could we try DB0008H. Let us proceed through. Let us
6 see ... it's the preceding page. This may be a higher
7 definition image. It does look a little bit better.

8 Do we see the incipient mark between the branches of
9 the banana?

10 A. Not from the banana one, no.

11 Q. And the one that's off to the right? This image may be
12 inadequate for that particular discussion?

13 A. Again, you could say that, again, as I said, to the left
14 of it there's a slight bulging in the ridge which could
15 be a second incipient.

16 Q. So one possible, the other not.

17 The final one of police forms is -- if we can take
18 the bottom one down -- DB0009H. Again, I will try to
19 bring up the left thumb in this one. First of all, I
20 will use the plain and then we will go to the rolled for
21 a reason.

22 Can you see again between the two limbs of the
23 banana and tell me if the incipient's present or not.

24 A. Can you highlight it further?

25 Q. I will try but, again, I am just conscious of image

1 quality. I will try.

2 A. It doesn't appear to be there, no.

3 Q. I suppose the second one, the one to the right of the
4 incipient, the right leg?

5 A. No, it doesn't appear to be there either.

6 Q. The final one, just as a control, is Mr Leadbetter gave
7 us -- in fact he gave us on Friday a gift -- gift seems
8 to be the word that is used he -- the photographic
9 original. If we look back at Mr Leadbetter, this is
10 again in the bottom screen, TS0005.28, and I will
11 highlight his print, I understand this to be some form
12 of copy is I think the better way of putting it, some
13 form of copy of a photograph provided by Mr Wertheim of
14 what one assumes to be a Wertheim inked original?

15 A. Yes.

16 Q. So it's an inked original, photographed and copied. So
17 that's the provenance of that so far as I know.

18 What again I am going to do is highlight the area
19 that would have the banana.

20 Can you confirm for me that the incipient between
21 the two legs of the banana is not evident?

22 A. Well, can I ...?

23 Q. Yes, help yourself, please.

24 A. It's very, very faint but I don't know how I would
25 illustrate it but there does appear to be something

1 there but it's not clear.

2 Q. So there might be something there but it's not clear?

3 A. It's not clear. The other incipient does show to the
4 left of the bifurcation down.

5 Q. So on this occasion where are you looking?

6 A. Just about there.

7 Q. Where my cursor is? **(Indicated)**

8 A. Yes.

9 Q. Let us mark that so we have that for posterity. Is it
10 about where the point of the pen is just now?

11 **(Indicated)**

12 A. Just slightly to the ... yes, just slightly to the left,
13 yes.

14 Q. What I am trying to do is stay clear of that because
15 there is ridge detail. So it is in that vicinity?

16 A. Yes.

17 Q. What I have done, Mr MacPherson, if I can count, is I
18 have looked at -- oh sorry, the final one I should look
19 at -- first of all, if I save this and I will go one
20 step back. Save this pair.

21 MISS BAHRAMI: That's saved as FI2810.03.

22 MR MOYNIHAN: If we could in the bottom, please, bring up
23 again DB0009H and proceed through to the same page. So
24 it is DB0009H.04.

25 What I forgot to do was that this is the arrest

1 form. It is the form used in production 189 and it is
2 obvious that, in this particular instance, a rolled
3 impression was used in the production, not a plain.

4 Do you recollect that?

5 A. Yes, from yesterday, yes.

6 Q. So what I should have done for completeness, which I
7 omitted to do, was to bring up the rolled impression of
8 Ms McKie's left thumb. I had better go just a bit
9 larger to make sure I have the right thing.

10 I am looking at her left thumb; is that correct?

11 A. That's correct.

12 Q. If I can then enlarge it, because this is a high
13 resolution image, I am looking at the banana again.

14 Any evidence of the incipient?

15 A. No.

16 Q. Looking at chance now, what I have shown you are three
17 police forms. In one of the police forms I have shown
18 you a plain and a rolled, so that's four inked originals
19 taken under what would obviously be different
20 circumstances?

21 A. Yes.

22 Q. And I have shown you one Mr Leadbetter traced back to
23 Mr Wertheim. I have shown you five?

24 A. Yes.

25 Q. Bar in one a faint hint you do not see the incipient in

1 any of the other?

2 A. No, but that doesn't detract from the other 16 ridge
3 characteristics in sequence and agreement that I've
4 found. Incipient ridges, by their nature, sometimes
5 show, sometimes don't show.

6 Q. All I was saying, Mr MacPherson, was this -- and one
7 could look at -- there's one other feature I want to
8 look at for the moment. We will just confine ourselves
9 to what is on the screen just now at the bottom.

10 All I am looking at is showing, for comment, a
11 series of images so that the Chairman can see to what
12 extent, first of all, the debate about particular
13 features is itself dependent on the variant that one
14 uses, the image variant.

15 A. Absolutely, yes.

16 Q. The second one that I am interested in is, if I keep at
17 the bottom the rolled impression from the final police
18 form but we can use any other for this purpose -- it
19 matters not to me -- and bring up at the top the McKie
20 print that you reproduced from Mr Swann. That is
21 TC2310.04.

22 What I am interested in on this occasion is, again,
23 I have to use, I confess, I have to use your green
24 lines, almost like the eyebrows, to find the top of the
25 banana.

1 A. Yes.

2 Q. Then we all know that above the banana, slightly to the
3 left, is a lake, 10 and 11?

4 A. Yes.

5 Q. On this occasion, in the Swann reproduction it seems
6 that someone's dug a channel to let some water out of
7 the lake?

8 A. Yes, there's some sort of damage there, yes, that's
9 right.

10 Q. Not reproduced in any of the other fingerprints that we
11 have seen?

12 A. Well, certainly that one is from 1999. I don't know
13 when the other one was taken.

14 Q. We will come back to that in a second. So, first of
15 all, there is some sort of artefact coming north/south
16 from the lake (10 and 11) down towards the banana --
17 indeed, would collide with the banana?

18 A. That's correct, yes.

19 Q. That appearance is not in the rolled impression from
20 1998 that we see?

21 A. The rolled impression would be from 1999.

22 Q. No, it's 1998, in fact.

23 A. Sorry, I beg your pardon.

24 Q. That's okay. It's from 1998 because she was arrested
25 one year before being put on trial.

1 A. Okay, right.

2 Q. Then the only other one that I have which may be -- and
3 I stress may be --

4 A. Can I just interrupt you there? There is the
5 resemblance of some sort of damage just to the
6 right-hand side of the lake but I agree with you it's
7 not as is shown in the above.

8 Q. The appearance of channels coming down is not in --

9 A. No, it's not as distinct, no.

10 Q. The only other one that may be a 1999 image is
11 Mr Wertheim's. So if we return to Mr Leadbetter,
12 TS0005.28 -- in the bottom -- and I will just highlight
13 Mr Leadbetter's reproduction. I am not sure how far
14 this will go for deterioration.

15 Can you confirm that, looking at this as a 1999
16 image, there does not seem to be that characteristic
17 channel?

18 A. There doesn't seem to be, no.

19 Q. So it may be that the characteristic channel in the top
20 image could, by some means we do not know, be an
21 artefact of the image?

22 A. I don't know -- do you know when this top image was
23 taken? Do you know what date?

24 Q. All I can help you is if you look, please -- and we may
25 need to find the blue inked original. Give me just a

1 second. If we bring up on the bottom of the screen a
2 letter TS0009 and highlight the date, 3rd March 1999 is
3 the blue inked one at the top and you will confirm that
4 what is said in the letter is that on that date what is
5 being sent to Mr Swann is a copy of Ms McKie's left hand
6 thumbprint, yes?

7 A. Yes.

8 Q. Then you bring up in the bottom again, TS0010. These
9 are the blue inked images?

10 A. Yes.

11 Q. What I want to do, because you are using the rolled --
12 correct? I will bring it up as best I can in its
13 original form.

14 For me, on the screen -- and no doubt to everyone
15 else in the hall -- it's not the most wonderful quality.

16 A. No.

17 Q. It's got areas of dark and areas of light patchiness?

18 A. Yes.

19 Q. Would you look, please, because you are now seeing for
20 the first time the inked original, can you confirm that
21 the inked original indeed suffers from the same
22 patchiness of detail?

23 A. Yes, it does.

24 Q. All I can tell you about the date is that I assume that
25 the inked originals had been prepared by that day,

1 3rd March 1999. Beyond that I cannot say and no-one
2 knows. At least, we have not -- that's incorrect. We
3 may in fact have to ask, it is a question we are going
4 to have to ask, I think, my learned friend, Mr Smith, if
5 he can make some enquiries to find out when that sheet
6 of paper came into existence with the marks. It was at
7 latest 3rd March 1999 and Mr Wertheim, you may
8 recollect, was doing work late February/early March 1999
9 but I don't know beyond that when Mr Leadbetter's image
10 came into existence. But it may be -- may be -- they
11 came into existence at roughly the same time.

12 One has the evidence of the channel; the other does
13 not?

14 A. This one from '97 does not, no.

15 Q. Yes, the SCRO charting, thank you.

16 But if I finish this particular line for a moment
17 and take away the blue inked -- that can go back up on
18 the screen. We will declutter you. We will take the
19 blue inked and the letter.

20 What I wanted to do is we have been through the
21 elementary process of looking at assumptions that are
22 required to be made and have said even in an ideal
23 situation a Fingerprint Officer is looking at one copy
24 of the mark, one fingerprint form, so he's got two
25 variants in front of him.

1 The complication here is that one has, certainly I
2 have put to you today, I think, six variants of
3 Ms McKie's thumbprint?

4 A. Yes.

5 Q. Two variants of Y7?

6 A. Yes.

7 Q. I am afraid my maths gives up at that point as to how
8 many combinations there are but if someone could work it
9 out. The problem is that what one could do is look at
10 any combination of those six sets of prints and two Y7
11 images, yes?

12 A. Yes.

13 Q. And the fact is, as we have seen so far as the incipient
14 is concerned, using that as our control point, one would
15 either see it as present in both, yes?

16 A. Yes.

17 Q. Or only present in one?

18 A. Correct.

19 Q. Depending on whether one wanted to rely on it as a point
20 in agreement, one could choose a combination of images
21 to say that it is present?

22 A. One could, yes.

23 Q. Equally, if someone wanted to contradict that
24 proposition they could choose a combination of images to
25 show that it's absent in the McKie print?

1 A. Yes.

2 Q. Coming back to the essential point here, which is that
3 fingerprints are a unique form of identification because
4 the characteristics are constant, can you tell his
5 Lordship what value is attached to a fingerprint
6 identification or indeed for that matter a disputed
7 identification, if what is occurring is that there is a
8 range of images available from which one can construct
9 two opposite arguments with equal facility?

10 A. All I can say is regarding the 16 characteristics, the
11 Second Level Detail that I have marked, to me proves
12 beyond reasonable doubt that they were made by one and
13 the same person. Yes, there are variations as you have
14 demonstrated but that doesn't still, as I said before,
15 detract from the 16 that I've marked on the charts.

16 Q. It is really a much more fundamental question I am
17 asking you, it is about the reliability of fingerprint
18 evidence in general, that it is both sides of the
19 argument, somebody saying it is an identification and
20 somebody it's not, both sides of the argument. The fact
21 that each side of the argument can arm themselves with
22 material to support their proposition dependent upon the
23 image that they select. Do you see the conundrum?

24 A. Yes.

25 Q. Do you wish to comment on that?

1 A. Well, as I say, until mark Y7 I've never known people to
2 be able to hold diametric views. Either one's correct
3 or one is wrong.

4 THE CHAIRMAN: I suppose it really only arises when you get
5 a complicated mark and if it's a straightforward mark --

6 A. Absolutely, sir, yes.

7 THE CHAIRMAN: -- the room for difference is not so great
8 and if they are very distinct features --

9 A. Patterns.

10 THE CHAIRMAN: -- as opposed to subtle differences so that
11 if you are dealing with subtle differences you may see
12 them on one and not on another.

13 A. Yes.

14 THE CHAIRMAN: But if you are looking at Level 2 Detail
15 which is, if I could call it straightforward but
16 well-recognised features, then the risk is reduced.

17 A. Reduced, yes. There shouldn't be a problem. If you are
18 looking at copy book marks exactly with patterns, with
19 good features, there's no problem. It's when you get
20 down to marks such as mark Y7.

21 MR MOYNIHAN: What I want to do is just move the argument
22 on. I used a phrase earlier on today that I wish to
23 adhere to, "officers of equal competence and good
24 faith", obviously over the unfortunate history various
25 allegations and bad feeling has built up. I want no

1 part of that. I want to stand clear of that and,
2 therefore, just look at the issue that we were talking
3 about initially. I've looked at your position, I've
4 looked at Mr Leadbetter, two individuals who reach the
5 same conclusion, both of not just competence, both of
6 eminence and good faith, they've got diametrically
7 opposed ultimate end results but reach the same
8 conclusion.

9 What I want to do now is look at the analysis of
10 some of the other Fingerprint Officers who arrive at a
11 different conclusion. You don't have the break on you
12 that I am choosing to adopt. I am choosing to adopt the
13 approach that all these officers are competent and
14 acting in good faith. That's my approach. You can
15 comment as you feel free.

16 What I want to do is to start with the most
17 elementary point and that is the understanding of the
18 target group idea. If I understand it correctly, we can
19 best focus on the target group by looking at just, again
20 to remind ourselves, it could be any one of the criminal
21 trial productions. I think 152 is the least confusing
22 simply because its numbers are the same as what we are
23 using just now. It is ST0006H.

24 Could we take everything else down. if we proceed
25 through ... maybe work back ... work through because

1 what I am trying to do is to find the images with the
2 chartings on.

3 This again just to remind ourselves is as good a way
4 of identifying your target area; is that correct?

5 A. Yes.

6 Q. In fact, perhaps it's a little bit more broadly drawn
7 than your original target area. If I understand what
8 you said to my learned friend, Miss Carmichael,
9 yesterday is what sought your eye -- I've used a
10 different term of target area -- what caught your eye is
11 what I am now calling inelegantly the banana?

12 A. Yes.

13 Q. In fact, you saw it as a hump backed bridge?

14 A. Yes, correct.

15 Q. Which is one of the details that we will come to because
16 Mr Zeelenberg doesn't see it as a straightforward
17 banana. He does indeed see it as a hump back at the top
18 of it.

19 You also mentioned -- and this was a source for me,
20 I confess, a degree of confusion but I think I now
21 understand it -- you also mention a lake as having
22 caught your eye?

23 A. Yes.

24 Q. You will forgive me because any time I hear a lake I
25 think of features 10 and 11 but, in fact, I think you

1 were talking of something else.

2 A. Well, a lake can be a variance of size.

3 Q. Can we just stop. First of all, when you are
4 contemplating the lake what caught your eye wasn't 10
5 and 11.

6 A. No.

7 Q. It was another one?

8 A. Yes.

9 Q. What, in fact, it was was the feature that my cursor is
10 on just now (**indicated**), just at the point of the
11 bifurcation number 9?

12 A. That's correct.

13 Q. There is a feature there, if I simply put in an arrow
14 just now (**indicated**) so that we can be record it and I
15 will come down so I stay away from all the other detail,
16 there is a feature just above the point of the arrow
17 that you are regarding as potentially a lake?

18 A. Yes.

19 Q. That's what caught your eye?

20 A. Yes.

21 Q. An alternative interpretation of that one might think
22 might be, for example, either an enlarged pore or more
23 than one enlarged pore?

24 A. Possibly, yes.

25 Q. Just to show the degree of subtlety that there is to

1 this argument, if we think back to 1997 and the point
2 you mentioned about a lake in Scottish practice. If one
3 interprets that feature as a lake, it would then be two
4 bifurcations and will count as two points towards the
5 16?

6 A. Correct.

7 Q. If it is regarded as an enlarged pore, it would not be a
8 Level 2 Detail?

9 A. That's correct.

10 Q. It would, in fact, be a Level 3 detail?

11 A. Correct.

12 Q. And would count as zero on the score for 16?

13 A. Back then. Now it would be -- well, back then it was a
14 supporting characteristic, if you like, but we weren't
15 able to use it, whereas now with non-numeric you would
16 be able to assign some value to that.

17 Q. Today, as we have heard from other witnesses, it might
18 be a detail, a Level 3 detail, that would add
19 confidence --

20 A. To the identification.

21 Q. -- to the identification of other features?

22 A. Yes.

23 Q. That is just an example of a point we have had running,
24 that the interpretation has a bearing on how one counts
25 points under the old 16-point. If it is regarded as a

1 lake, it's two; if it is regarded as an enlarged pore,
2 it's zero?

3 A. Yes.

4 Q. Beyond the banana and the large pore or lake, it matters
5 not -- what is your prefer interpretation? It matters
6 not to me what we call it?

7 A. I would say it's a lake.

8 Q. Beyond the banana and the lake, do you recollect if
9 there are any other features that caught your eye?

10 A. The strongest features for myself, I believe were out to
11 the right of the core.

12 Q. Features to the right.

13 A. Yes.

14 Q. Again, I don't want to put words in your mouth. Can you
15 give me a description of what those features were or can
16 you give numbers now to them? I appreciate it is very
17 difficult, Mr MacPherson, to be accurate 12 years back
18 so it suffices for my purposes if you can even tell me
19 today what is it that catches the eye in this?

20 A. Well, that was the main as we talked about the hump
21 backed bridge and the adjacent lake. That was what
22 first of all caught my eye.

23 Out to the right there are stronger characteristics.
24 Whether they caught my eye also at the time, I don't
25 remember but to me they were the strong ones out to the

1 right and they would be 4, 5 -- 3, 4, 5 I would think
2 they would be.

3 Q. So a run then and it may be of 3, 4, 5?

4 A. Yes.

5 Q. That is fine. I don't wish to stretch your
6 recollection. It suffices.

7 A. Well, all I can say is I'm doing thousands and thousands
8 of comparisons every year. To try and isolate one
9 comparison 12 years later ...

10 Q. If I make myself clear, I am not in fact going to ask
11 you under oath to say that those were the points that
12 you first saw a dark day in February 12 years ago. What
13 I am actually more interested in is the process. So if
14 I work for just now on the basis that the prominent
15 features that would at least catch your eye just now are
16 the banana, the adjacent lake, 3, 4 and 5.

17 A. Yes.

18 Q. They are fine for my purposes.

19 A. Yes.

20 Q. What I want, I explained with your assistance earlier on
21 it was a process of two experts on this tour around and
22 why they might arrive at different conclusions and
23 they're making assumptions. If I understand the way
24 that you are working is that you have identified a start
25 point by looking at the latent, the overall pattern and

1 a start point. You then bring in the known elimination
2 forms and start to process through them and you are
3 looking through your glasses binocularly at the latent
4 and the known. Is that correct?

5 A. You would only have one elimination form in front of you
6 at a time.

7 Q. I am grateful to you. One at a time?

8 A. Yes.

9 Q. Some you would rapidly dismiss if, for example, you
10 don't have the correct pattern whorl or loop or
11 whatever --

12 A. Well, some could be all arches which just flow from one
13 side to the other. XF for example, was a twin loop. So
14 if you are looking at impression XF which was, I
15 believe, an almond-shape whorl or a twin loop, if you
16 are comparing that against a form which contains all
17 arch patterns, then the comparison is finished.

18 Q. Forgive my ignorance. I haven't asked anyone else this
19 question before; therefore, I don't know the answer.

20 For Ms McKie, just looking at her thumbprint just
21 now, what pattern is that?

22 A. It could be -- well, I assumed it was a loop to the
23 left.

24 Q. So let's just assume for the moment -- and you obviously
25 conclude that Y7 is the same, a loop to the left?

1 A. Absolutely, yes.

2 Q. Absolutely.

3 So you would be excluding things just because they
4 are not a loop to the left. You then find something, as
5 in Ms McKie, that's a loop to the left. So it's a
6 start?

7 A. Yes.

8 Q. You also find something that looks like the banana?

9 A. Yes.

10 Q. With the lake?

11 A. Yes.

12 Q. You are then casting your eye in a binocular manner
13 further out right?

14 A. Correct.

15 Q. What I put to you again for comment is this: if you then
16 are doing a binocular comparison, what you are in fact
17 is doing is your eyes are going right/left,
18 right/left --

19 A. No.

20 Q. No? What are you doing?

21 A. You are looking through two glasses at the one time and
22 doing the comparison in your head. I don't know how to
23 explain it.

24 Q. It's okay.

25 A. No, what you don't do is go left to right, left to

1 right. You look at both the mark and the known print
2 simultaneously. I think the Chairman has already
3 alluded to the fact that that is a skill, yes.

4 Q. Yes, that's fine. So if I am thinking of a
5 tennis equivalent, you are not sitting in the centre
6 line watching the ball go backwards and forwards?

7 A. Absolutely not.

8 Q. You are at one end of the stadium looking and watching
9 the whole match without having to move?

10 A. Yes.

11 Q. That's fine.

12 Nonetheless, what I would suggest is something that
13 has to be considered if you are doing that binocular
14 comparison is that there is -- I put it no higher than
15 this -- a risk that when you are looking at an event,
16 which is obviously a generic term, an event and you are
17 trying to determine is that event a bifurcation or a
18 ridge ending, there is a risk in the binocular process
19 that what you are doing is interpreting the latent in
20 accordance with the known. Is that risk present?

21 A. Yes, I would say so but you've looked at the mark itself
22 in isolation before you begin your process. But, as I
23 said to you before, you may have looked at it many, many
24 times and some of the characteristics may have stuck in
25 your head. Yes, it's a risk but that's where your

1 training comes in.

2 Q. If we then carry out just a slight comparison just to
3 begin with -- and it is Mr Grigg I have in mind -- if we
4 just retain on the top just now the Crown production and
5 also bring up a charting that Mr Grigg did of FI2909.13,
6 what I am going to do is just to highlight what he drew
7 on Y7.

8 Just to remind everybody, what Mr Grigg did in his
9 evidence was he started by telling us what his initial
10 assessment would be of Y7. We obviously have an initial
11 difficulty that on the left-hand edge the right lines he
12 is seeing as recurving ridges and he's not noticing the
13 banana as such form as a bifurcation. Do you see that?

14 A. That's correct. He's made it a continuous ridge, yes.

15 Q. He's made them as a continuous ridge.

16 However -- and this is the point why I was quite
17 content to take just the points you had mentioned just
18 as catching your eye today, if not necessarily back
19 then -- what Mr Grigg is also, it would seem, just very
20 broadly, doing is catching his eye on initial
21 assessment, as going right, a series of points that very
22 roughly might coincide with 3, 4, 5 and 6 -- very
23 roughly?

24 A. Roughly, yes, that's correct, yes.

25 Q. So it would seem that his first glance, what caught his

1 eye was something similar, although he's already
2 discordant from you because he is already thinking he
3 doesn't see a banana, he sees recurving ridges?

4 A. I remember from Mr Grigg's evidence he did initially
5 look at that but I think when he saw Terry Kent's image
6 he then had to concede that, indeed, there was a banana.

7 Q. Exactly and I am grateful to you because that is my
8 recollection as well and that is again where one comes
9 into this complication of different images perhaps.

10 A. Yes, absolutely.

11 Q. If I can put it this way, the way I am doing it
12 simplistically, is that based on one image the
13 conclusion, the interpretation, the assumption that
14 Mr Grigg has is that the bottom left corner is a series
15 of, in effect, parallel recurving ridges?

16 A. Yes.

17 Q. As you say, looking at a different image he is prepared
18 to say, "Oh, yes, I do see it now more like a banana"?

19 A. Absolutely, yes.

20 Q. That is why, among other thing, that's what one would
21 expect an expert of competence and good faith to make
22 appropriate concessions if presented with evidence which
23 challenges his assumptions?

24 A. Yes.

25 Q. Then out, as I've said, to the right he is seeing and

1 starting with the premise that there are, I will use the
2 neutral phrase, events out to the right that are worthy
3 of further scrutiny. Do you see that?

4 A. Yes.

5 Q. In fact, this is where I was suggesting to you that we
6 can perhaps use Mr Grigg as the man conducting the same
7 journey as yourself and Mr Leadbetter. First of all, we
8 have to describe Mr Leadbetter because he doesn't go
9 into this area. He says this is too distorted, so he
10 drops out really?

11 A. There is some distortion in that area, yes.

12 Q. But not to the extent that you would steer clear of it?

13 A. Absolutely not, no.

14 Q. Absolutely not.

15 A. No.

16 Q. Because this is critical to your --

17 A. That's where I've made my identification, yes.

18 Q. So we have already in our journey parted company with
19 Mr Leadbetter but he may come back and join you at the
20 end, yes?

21 A. Correct.

22 Q. You have at least set out on the journey with Mr Grigg
23 following the same line as you?

24 A. Yes.

25 Q. What --

1 A. With the points to the right, yes. His interpretation
2 of the core is totally different from mine.

3 Q. But can you at least accept that what we are seeing with
4 Mr Grigg is, because he makes a concession that you say
5 when presented with the Kent image that what we, in
6 fact, have here is the product of a man of competence;
7 you don't doubt his competence?

8 A. I don't know anything about Mr Grigg, I'm sorry.

9 Q. Nor his good faith?

10 A. Certainly not his good faith, no.

11 Q. That is fine. As I've said to you, I am approaching
12 everyone on that basis but you feel free to comment
13 otherwise.

14 Sir, in fact, this might in fact be a suitable point
15 to stop.

16 THE CHAIRMAN: Yes. Just before we rise, if I could make
17 sure I have got it, when you are looking in this
18 binocular way, is one eye looking at the print and the
19 other eye looking at the mark? I mean, it sounds to me
20 physically a very difficult notion or, without lifting
21 your head, do your eyes move from one to the other.

22 A. Yes.

23 THE CHAIRMAN: Both eyes move from one to the other?

24 A. Yes. You're looking at both images. I just don't know
25 how to describe it, I'm afraid.

1 THE CHAIRMAN: I can see that one --

2 A. You are certainly not moving from one to the other.

3 You're looking at both images simultaneously and you're
4 building up your picture in that way, in that respect.

5 THE CHAIRMAN: I was just trying to get a notion of the
6 actual physical thing. I mean, is your right eye, say,
7 looking at the print and your left eye is looking at the
8 mark? Which sounds to me an extraordinary skill that
9 you may be able to build up or are both eyes looking at
10 the mark and both eyes moving --

11 A. No, one-and-one, I would say.

12 THE CHAIRMAN: One ...?

13 A. One on the left mark and one on the right on the other
14 one.

15 THE CHAIRMAN: So this is just a skill you build up over
16 your seven years of training?

17 A. Yes.

18 THE CHAIRMAN: Good. Thank you very much. We will sit
19 again at 11.50.

20 **(11.30 am)**

21 **(A short break)**

22 **(11.50 am)**

23 MR MOYNIHAN: What I now wanted to do was, in fact, to
24 proceed through Y7 and look at the thought processes
25 that build up to a conclusion. We will see as we

1 journey along the particular issues that arise that call
2 for interpretation or, the way I am looking at it just
3 now, assumptions to be drawn.

4 Firstly, if we could bring up, please, the SCRO
5 charting -- oh yes, if those are not already saved, save
6 those.

7 MISS BAHRAMI: That's saved as FI2810.04.

8 MR MOYNIHAN: Perhaps I should just clarify this as we bring
9 up FI0167A and perhaps bring it up twice just in the
10 usual way.

11 Mr MacPherson, I should just clarify this: so far as
12 the criminal trial productions are concerned (152, 180,
13 189) my only interest in them was to identify and
14 discuss with you this concept of a target group. In
15 fact, what I am going to do as we debate Y7 is I am
16 going to use the comparative exercise material and at
17 least for my purposes I trust only the comparative
18 exercise material because you were asked and your
19 colleagues agreed to participate in this exercise for
20 precisely the discussion we are going to have. So the
21 criminal productions, as far as I'm concerned, are in
22 the past, so far as our conversation is concerned.

23 What I wanted to do was to begin a discussion with
24 you and I am going to, in a sense, go round the clock
25 but in fact what I am going to do is, for a reason that

1 will become apparent in a moment, I am going to begin or
2 include as my starting points 15, 16, 1 and 2. The
3 reason for bracketing them together is they are, in
4 fact, four points in roughly the same location. As we
5 blow up images we will in fact see all four points.

6 Are you comfortable with that?

7 A. Yes.

8 Q. What I was going to do was thereafter simply go round in
9 numerical order. So we will proceed along what I now
10 myself refer to as the south coast, proceed along 4, 5,
11 6, the points that you had yourself seen and that
12 Mr Grigg also had picked up. We will then go 7, 8, 9
13 and we will end up at number 14.

14 So far as 15, 16, 1 and 2 are concerned, perhaps if
15 I can enlarge. The difficulty is enlarging without
16 losing any of the detail.

17 Are you comfortable enough with that detail?

18 A. Yes.

19 Q. What I want, in fact, to do is to do this in the correct
20 manner, as I would understand it. The correct manner is
21 to look at the latent and see what the features are
22 rather than to start with the known but as you yourself
23 have said once things are committed to memory it's very
24 difficult to do it otherwise, so one might have a mental
25 picture.

1 If I begin by confessing that 15 and 16 I obviously
2 associate with the handshake and, therefore, the
3 question is: is there to be seen here evidence of an
4 ascending ridge that stops to the left of a descending
5 ridge, which stops with the two overlapping?

6 A. That's correct.

7 Q. Can you explain your own position? It may be that you
8 want me to take the image on the left and then either
9 reduce it or enlarge it. Just you do it as you wish
10 just to explain how you seen 15 and 16.

11 A. Just exactly as you have described, an ascending ridge
12 and an overlapping ridge descending.

13 Q. Where on the image do you see the evidence of the
14 descending ridge? If we begin with the descending one
15 is number 15, where do you see the evidence of the
16 descending ridge, number 15?

17 A. I thought -- well, I was taking 15 as an ascending
18 ridge.

19 Q. Sorry 15, you are quite correct, is the ascending ridge.
20 I am sorry.

21 Where do you see the evidence of the ridge that
22 comes down from the point 15 or ascends to the point 15?

23 A. Exactly where I've marked it.

24 Q. I suppose what I am asking you is can you point to what
25 I might refer to as the tail, ie the ridge that's

1 ascending to that point?

2 A. It comes up -- where the cursor is at the moment

3 **(indicated)** it comes up and terminates just at the dot.

4 Q. So if I draw in a very rough line perhaps, you are

5 indicating that it goes ... very roughly again?

6 A. Yes.

7 Q. Like a drunk driver again but very roughly that is the

8 ascending ridge?

9 A. Yes.

10 Q. So far as number 16 is concerned, that is the descending

11 ridge?

12 A. Yes.

13 Q. Where is the evidence there of the remainder of that

14 ridge?

15 A. Again, where the point is at the very end of that ridge.

16 Do you want me to mark ...?

17 Q. Well, if the point is simply where the red dot is?

18 A. Yes.

19 Q. Then fair enough because that's understandable in

20 itself.

21 What about the ridge though, the rest of the ridge

22 structure that is above that that comes down to that

23 point?

24 A. That would -- where the cursor is, it moves up in that

25 direction **(indicated)**. But this is where the movement

1 that I was talking about is starting to come in. I
2 think in the comparative exercise we said that the
3 movement was above points 14, 15 and 16, if I remember.
4 I can't remember exactly but I think that's what we
5 said. The movement was above and to the right.

6 Q. You are correct. In the comparative exercise you said
7 the movement was above points 14, 15 and 16.

8 A. Yes.

9 Q. So far as what I would refer to as the tail of the ridge
10 which ends at 16, are you saying that that is evident,
11 observable, by someone such as me or are you saying that
12 that has been lost because of the movement?

13 A. No, I would say I would hope it's observable by
14 yourself.

15 Q. Therefore, can you, with Miss Allen's assistance or by
16 yourself, can you draw in for me, please, where I should
17 be looking in order to see the tail that descends to
18 this point.

19 A. **(Indicated)** That's it.

20 Q. Is that the extent to which it is observable?

21 A. You would have to blow it up a bit more but that ridge
22 may follow round and come to that point there
23 **(indicated)**. But, as I said, this is where the movement
24 comes in.

25 Q. We will save an image when we come to the end of this

1 particular chapter, 15, 16, 1 and 2.

2 If I come down then in Y7 to the next one which is

3 point number 1, first of all, can you tell me what the

4 interpretation is of point number 1?

5 A. A bifurcation down.

6 Q. A bifurcation down?

7 A. Yes.

8 Q. Can you, therefore, indicate for me, please, the two

9 legs of the bifurcation? **(Indicated)** You are

10 reasonably comfortable with that?

11 A. Yes.

12 Q. Similarly, in relation to point number 2, can you tell

13 me what the characteristic is and mark it for me,

14 please.

15 A. It's a bifurcation down. If you follow this ridge down

16 **(indicated)** and there's one intervening ridge to the

17 right-hand, point 1.

18 Q. So far as that intervening ridge is concerned, where do

19 we actually see the intervening ridge?

20 A. **(Indicated)**

21 Q. So the intervening ridge is in the position of the green

22 arrow?

23 A. Yes.

24 Q. Again, so far as all of these details are concerned (15,

25 16, 1 and 2), are you saying that these are points that

1 you would be able demonstrate to, in an ordinary court
2 to a member of the jury, in this particular forum to me
3 or perhaps more pertinently to the Chairman?

4 A. Well, I've said before, you can't make instant experts
5 out of the jury but I would illustrate it and hope that
6 they would be able to see it.

7 Q. If I just clarify that -- and I appreciate my learned
8 friend, Miss Carmichael, asked you about this
9 yesterday -- when you say you can't make an instant
10 expert out of the jury, there are two different stages
11 to this exercise: first of all, is there a feature, is
12 there a marking that is observable? That's the first
13 stage. Secondly, what is the proper interpretation of
14 that marking?

15 A. Yes.

16 Q. First of all, do you accept that before there's any
17 question of the interpretation, you must be able to
18 satisfy the lay person that there is a feature that is
19 capable of being observed?

20 A. Well, as I say, you can't make an instant expert out of
21 the jury. You put it before the court. I mean, I gave
22 the example yesterday from July 2006 they don't have any
23 enlargements, so ...

24 Q. Let us put it this way: let us say somebody says to me,
25 "Mr Moynihan, I'm a fingerprint expert. I can see a

1 ridge up at point 16, literally up at point 16", and I
2 say, "Well, I'm sorry. I don't see it. It's just a
3 white sheet of paper". An expert might say,
4 "Mr Moynihan, you can't see it because you're not an
5 expert. I'm telling you it's there."

6 The alternative is somebody says, "Look, there is a
7 shadow there. Do you at least see the shadow", and I
8 will say, "Yes, I at least see the shadow", and then the
9 witness would say to me, "Well, Mr Moynihan, that shadow
10 is a ridge ending, a bifurcation", or whatever.

11 Is your evidence dependent on at least showing me
12 the presence of something that is at least observable by
13 me as a shadow?

14 A. You would hope that the jury would be able to see it.
15 They are the final arbiters of your evidence. They may
16 be able to see some of the characteristics that you have
17 illustrated; they may not. But, as I said yesterday, if
18 you have got a bloody finger-mark on a knife, it's a
19 watery impression, whether it's photographic
20 enlargements or charting PCs they may not be able to see
21 it but it's down to the court whether they accept your
22 evidence.

23 Q. I will not take that too much further.

24 So far as 15, 16, 1 and 2, I will just give you a
25 chance to look at it again and satisfy yourself with

1 what you have drawn and then I will take you to what
2 some of the others have drawn.

3 Are you satisfied with what you have drawn?

4 A. Yes.

5 MR MOYNIHAN: In that case, can we save what we have.

6 **(Pause)**

7 MISS BAHRAMI: That's saved as FI2810.05.

8 MR MOYNIHAN: So far as others are concerned, perhaps if we
9 just leave your FI0167A up just now and if you allow me
10 just a moment. **(Pause)**

11 Could we bring up, please, FI2209.14 on the
12 right-hand side.

13 What I have actually brought up is a charting that
14 Mr Wertheim did for the Inquiry. We can see on the
15 right-hand side, if I simply enlarge that first, that he
16 has drawn 15 and 16, 1 and 2 with 3 just in for
17 convenience as well. 15 and 16 he has drawn as he
18 describes it as a hand shake, the two overlapping ridge
19 ends, 1 and 2 he has drawn as the two bifurcations.

20 No difficulty with what he has drawn so far as
21 Ms McKie's known print is concerned?

22 A. No.

23 Q. What he draws as his interpretation of the same area of
24 Y7 is a number of options. First of all, so far as 15
25 and 16 are concerned you will see that he admits of the

1 possibility, in fact more or less accepts I think that
2 the ascending ridge (point number 15) there is indeed an
3 ascending ridge ending at the point that you have
4 identified but so far as the descending ridge is
5 concerned (number 16) he sees it as simply one
6 continuous ridge flowing upwards, round and beyond.
7 Just at 15 and 16 just now?

8 A. Yes.

9 Q. You can at least see what he has drawn. What comment do
10 you have on what he has drawn?

11 A. That's his interpretation of it. I don't agree with it.
12 He's taken no cognisance, I believe, in the phase 2
13 exercise or of the movement in the mark just above the
14 descending ridge.

15 Why he can't see point number 1 in particular -- he
16 seems to have come along and just conveniently stopped
17 at the point of -- sorry, point number 1. He doesn't
18 seem to have taken any cognisance that there is an
19 actual bifurcation located in that position.

20 Q. If I can speak for him -- but his evidence is perhaps
21 more important -- if I understand what he says at this
22 position, first of all, if we go back to 15 and 16.

23 First of all, the movement that you are describing is
24 above the point?

25 A. Above, yes.

1 Q. The first point that we are seeing is that beneath the
2 point where you have drawn number 16, beneath the point,
3 he sees a continuous ridge running down and not, as you
4 would say, a ridge that ends at that point?

5 A. I don't agree with that.

6 Q. Why is he wrong?

7 A. His interpretation is wrong.

8 Q. Why is he wrong?

9 A. That's the way he sees that. You'd have to ask him.

10 Q. Remember what I said to you earlier on is that at
11 certain stages in this journey, because of the lack of
12 clarity, the variance, as I described it, certain
13 assumptions have to be made.

14 Do you at least admit of the possibility when one is
15 looking at the spot, if I can use that neutral term, the
16 spot that is used for 15 and 16 that it admits some
17 interpretation?

18 A. No. My interpretation is it's a descending ridge and on
19 the outer side of that there is a ridge ending up. Not
20 very far from the descending ridge is where the movement
21 comes in. I was hoping to show you -- I have a couple
22 of charts that maybe I can describe that movement and
23 maybe that would explain --

24 Q. I am quite happy to take in points of detail when you
25 wish. First of all, I had started in the most

1 elementary way. Perhaps if on the left-hand side -- I
2 have forgotten to note. Perhaps if we save this pair
3 just now and that will assist me.

4 MISS BAHRAMI: That's saved as FI2810.06.

5 MR MOYNIHAN: What I would like to do on the left-hand side
6 is bring up an image of FI0167A. Again, I will try as
7 best I can to recreate what I had before so we can see
8 the detail.

9 If I understand the sort of language that was being
10 used in the criminal trial, Mr Findlay, no doubt for a
11 particular effect for the jury, spoke of what I am
12 calling the spot -- which has at either side 15 and
13 16 -- he used a pejorative term, a blob; is that
14 correct?

15 A. I don't remember.

16 Q. You see if I can start, just let's use the neutral term,
17 it's a spot, it's a black mark in the middle of the
18 image, do you at least admit of the possibility,
19 conceive of the possibility, that two examiners of equal
20 competence, both acting in perfectly good faith, could
21 say, one could say, "I see two points there", the other
22 could say, "I see only one"?

23 A. No, I can't. I'm afraid, I see an ascending ridge and a
24 descending ridge, so I'm sorry.

25 Q. So you don't even see an argument about it?

1 A. No.

2 Q. Coming to point number 1, if I understand Mr Wertheim's
3 evidence about point number 1, he has drawn an outer
4 yellow circle, within it a red circle and, if I
5 understand his evidence correctly, what he is saying is
6 within the red circle there could be something occurring
7 but it's at the edge of the print and he would regard
8 that as unreliable. In other words, he would not know
9 with any degree of certainty what was going on beneath
10 the red spot because he was right at the edge of the
11 impression?

12 A. I think I've already marked the characteristic as a
13 bifurcation down. I would disagree that it's on the
14 edge. Can I mark?

15 Q. Yes, please.

16 A. Something like that (**indicated**). That's where I would
17 argue that the edge of the mark is and it's well below
18 the bifurcation.

19 Q. So what you have done is you have now drawn in in green
20 within the yellow circle the area in which you see the
21 bifurcation number 1?

22 A. That's correct.

23 Q. I am grateful to you. We will keep that image just now
24 and save it just a little bit later. You have also
25 drawn a green line to the right which would mark the

1 outer limits of the impression?

2 A. Yes.

3 Q. Again, so far as point number 2 is concerned, you will
4 see that what Mr Wertheim has drawn is that point 2
5 nestles between two ridges. They are light blue in
6 colour and, therefore, he sees no particular feature in
7 that location.

8 What is your comment on what he sees there?

9 A. I see the left leg coming down like so and it is thin, I
10 admit it's very thin, but the right leg like so
11 **(indicated)** and you would have the intervening ridge.

12 Q. Where is then the ascending ridge that goes up from
13 there?

14 A. That would be the intervening ridge. Sorry --

15 Q. The ascending ridge from point number 2?

16 A. The ascending ridge would come up and stop at point
17 number 15.

18 Q. Would you admit at least of the possibility that what
19 you have had to do, in doing that, is in fact take a
20 green line over an area between points 2 and point 15
21 where there is, in fact, no corresponding black marking
22 underneath?

23 A. No, I wouldn't agree with that, no.

24 Q. So you would, therefore, say that the Chairman can see
25 the underlying detail that you have drawn?

1 A. Yes.

2 MR MOYNIHAN: So that is 1, 2, 15 and 16, according to

3 Mr Wertheim. If we could save that image and we will

4 just record that your additions are all in green to that

5 one that has been of assistance.

6 MISS BAHRAMI: That's saved as FI2810.07.

7 MR MOYNIHAN: As far as Mr Zeelenberg is concerned, if we

8 could bring up on PowerPoint is probably better

9 AZ0061.49. He has different numbers for the particular

10 features. 15 and 16, he calls 1 and 16, yes?

11 A. Yes.

12 Q. 15 is point number 1 and 16, by coincidence, is also

13 number 16?

14 A. Yes.

15 Q. We descend the ridge from number 1 (that's SCRO 15) to a

16 point that he has marked as number 19. That would be

17 your point number 2.

18 A. Correct.

19 Q. We then come the ridges intervening; is that correct?

20 A. Are you going to the left?

21 Q. When we go left, where is your point number 2?

22 A. You've gone to the right for point number 2.

23 Q. Sorry, point number 1, I apologise. It's point number 1

24 I am looking at. Point number 2 is his 19 so point

25 number 1, is that Mr Zeelenberg's number 2?

1 A. Number 2, Mr Zeelenberg's number 2, is our number 1.

2 Q. That is where, as I said to you, even though the charts
3 are in common the numbers are confusing. So what we
4 want to watch, therefore, is what Mr Zeelenberg draws in
5 relation to points his 2 (which is your 1), his 19
6 (which is your 2), his 1 (which is your 15), and
7 thankfully we're all back together, number 16. Yes?

8 A. Okay.

9 Q. What I will see is if these allows me to control it as
10 we proceed.

11 So he is telling us that his points 1, 2, 16 and 19,
12 your 15, 1 and 16 but it does actually cover 2 as well.
13 So what he has drawn is a ridge structure.

14 First of all, are you content with what he has drawn
15 in relation to Ms McKie? First of all, the overlapping
16 bifurcations -- let us use your numbers -- 15 and 16?
17 Yes?

18 A. Yes.

19 Q. Beneath that, the bifurcation which is number 2?

20 A. Yes.

21 Q. Then the next question of interpretation is point number
22 1. He seems to have drawn as a green ridge ending?

23 A. Yes.

24 Q. There is a question of interpretation over what is
25 plainly observable to anyone.

1 What is your view about whether it's tenable to
2 construe, even what is on Ms McKie, as a ridge ending?

3 A. I can't see for the dots unfortunately but it looks like
4 a bifurcation down to me.

5 Q. Is it tenable to look at it as a ridge ending?

6 A. Well, I think as we've already discussed, yes.

7 Q. What he then draws in Y7 is so far as 15 and 16 are
8 concerned you will see is only one point?

9 A. Yes, he's just ignored the point to the right.

10 Q. He hasn't, with respect, ignored the point to the right.
11 What he has done is he has interpreted that point to the
12 right as falling, in fact, on one continuous ridge.

13 A. Well, I don't agree with that.

14 Q. He has, therefore, seen only one point in that vicinity?

15 A. I think it's quite plain to see that there's an
16 ascending ridge and there's a descending ridge. I don't
17 see the difficulty.

18 Q. Where is Mr Zeelenberg wrong in what he has drawn?

19 A. He's not taken cognisance of the descending ridge.

20 Q. Where is his drawing -- he has two green lines either
21 side of the yellow and the yellow seems to be in common,
22 the yellow is the yellow that is the ridge that ends at
23 number 15. Where is he wrong in relation to what he's
24 drawn to the right?

25 A. I can see a descending ridge.

1 Q. If we then come down that descending ridge from number
2 15, he has drawn it as a continuous ridge flowing down?

3 A. Yes.

4 Q. With no bifurcation on its length corresponding to
5 Ms McKie.

6 Did you disagree with that?

7 A. Yes.

8 Q. Again, where is Mr Zeelenberg wrong?

9 A. There's a bifurcation down where it's marked on the
10 chart.

11 Q. What error do you say is patent on the face of his
12 drawing?

13 A. Again, he's not taken cognisance of what I see anyway as
14 a bifurcation down.

15 Q. He does not show what you are saying is true --

16 A. No.

17 Q. Mr MacPherson, if I just explain myself. I am going to
18 go through each of these points and give you an
19 opportunity to say not just you are right but why the
20 others are wrong, if you follow me.

21 Now, if it simply comes down to, "I am wrong; they
22 are wrong", then so be it but I'm giving you an
23 opportunity to go that step further and say, "They are
24 wrong because I can demonstrate to you this or that".

25 Do you understand?

1 A. Well, I thought that was the point of the comparative
2 exercise and I've illustrated that, to me, it's a
3 bifurcation down where I've marked it.

4 Q. This is where we've gone in this respect beyond the
5 comparative exercise because what we have seen from a
6 number of the experts is that they have done what
7 traditionally you did not do. They have traced ridges
8 and they have said, "I can support my conclusion in this
9 manner by drawing ridges".

10 A. Well, if you want me to draw ridges, I'll draw ridges
11 for you.

12 Q. Mr MacPherson, it is not what I want. I am giving you a
13 chance to tell me what mistake Mr Zeelenberg has made.

14 A. Well, they've not taken cognisance of what I see as a
15 bifurcation down. That's all I can say.

16 THE CHAIRMAN: Could I just ask for a moment, if you go back
17 to 15 and 16 where he has drawn in -- well, 15, you are
18 agreed.

19 A. Yes.

20 THE CHAIRMAN: The ridge adjoining which he has made
21 continuous --

22 A. Yes, he's actually the ridge above.

23 THE CHAIRMAN: -- you would stop to make a descending
24 overlap. So he has got --

25 A. Sorry. What he has marked as the outer ridge, he hasn't

1 taken cognisance at all of what I hope you can see is a
2 descending ridge.

3 THE CHAIRMAN: But he's got the ridge right. It's just he
4 continues it where you would stop it?

5 A. No, actually it should come in. What he's marked, it
6 comes down and should come in just above point 15.

7 THE CHAIRMAN: Yes. So that the green spot --

8 A. The green spot, yes.

9 THE CHAIRMAN: -- which is just about 2 o'clock from the red
10 one, it should turn in about there. Is that right?

11 A. Just to the right of where the red dot is, yes, you
12 should turn in. You're exactly right, sir, yes.

13 What he has marked with the green dots is actually
14 the green dots on the image, the right-hand image, 49.

15 THE CHAIRMAN: Yes. I just wanted to make sure that he's
16 got the ridge right but he doesn't turn it at the point
17 coming down where you would.

18 A. Yes.

19 MR MOYNIHAN: If I had understood you correctly,
20 Mr MacPherson, what you referred his Lordship to was the
21 green ridge on the right-hand side, so that what
22 Mr Zeelenberg has drawn is the ridges in Ms McKie, the
23 ridges that form 15 and 16, he has as two yellow ridges,
24 sandwiched between continuous ridges, flanked on either
25 side by continuous ridges, which he has drawn in green.

1 A. Yes, so what he should have is descending yellow
2 dots -- unfortunately, I take it I can't mark this or
3 whatever?

4 Q. No, you can't. If you give me just a second, please,
5 because we can maybe get something that you can mark.

6 First of all, what he has marked is, in Y7 he has
7 marked only one central yellow ridge and he has marked
8 two flanking green ridges, correct?

9 A. Yes.

10 Q. First of all, do you agree with his two flanking green
11 ridges as he has drawn them corresponding to the
12 flanking green ridges on the right-hand image?

13 A. No.

14 Q. So where is it then that you disagree?

15 A. He's not taken cognisance of the descending ridge below
16 the green there.

17 Q. What we can do, one of the reasons for bringing this up
18 on PowerPoint is a question of an ability to control the
19 image because sometimes it gets obscured by the text.
20 Can I leave that and there is a reason for doing so and
21 I will come back and give you the opportunity to mark up
22 an image just now.

23 The reason that I want to just continue with what I
24 can see just now, the other point on which Mr Zeelenberg
25 differs from you is in relation to SCRO point number 1.

1 What he has done on Y7 is marked it as a ridge ending,
2 perhaps corresponding to the ridge ending that we have
3 on the right-hand side but he has not drawn a
4 bifurcation in that location.

5 Is he wrong to see it on Y7 as a ridge ending?

6 A. Well, I think we've already discussed the interchange
7 but for me it's a bifurcation down.

8 Q. So if I switch cars now just on the journey, if I tell
9 you that Mr Swann told us that detail number 1 was a
10 ridge ending, that's how he sees it?

11 A. Well, as I say, they can be interchangeable. We've
12 already discussed.

13 Q. We will come back in a minute to the point we were
14 looking at about 15 and 16 and number 2.

15 The theme that I am running with just now is, again
16 if we use Mr Swann, again I am going to regard everyone
17 in this way as exactly the same. Mr Swann I regard as a
18 competent individual acting in good faith in all that he
19 does. He has a difference of view to you on the
20 interpretation of this event. He sees 1 as a ridge
21 ending; you see it as a bifurcation.

22 A. Yes.

23 Q. Do you see that even as we start here at number 1 there
24 is an assumption that you are making (namely that number
25 1 is a bifurcation) that differs even with Mr Swann?

- 1 A. Yes, but I think we've already discussed we had two left
2 thumb impressions of Shirley McKie, one was a
3 bifurcation, one was a ridge ending, you can't discount
4 all the other hundreds of characteristics shown within
5 that. So there's an event in that area, a feature in
6 that area. Whether it's a bifurcation or a ridge
7 ending (**shrugged**).
- 8 Q. What we are looking at then and this would be a point to
9 give you a chance to do a drawing, number 1 is an event.
10 One can argue, can one, whether it's a bifurcation or a
11 ridge ending?
- 12 A. Yes.
- 13 Q. If I come across and up, you, Mr Zeelenberg and
14 Mr Wertheim are agreed that there is an event?
- 15 A. Yes.
- 16 Q. That at least corresponds with point 15?
- 17 A. Yes.
- 18 Q. But they part from you on this journey because they say
19 that is the sole event in that location?
- 20 A. Yes but they part from me on the journey completely when
21 they say there's no movement contained within this mark.
- 22 Q. Why does the question of movement actually alter what
23 Mr Zeelenberg has drawn because this is the point for me
24 asking you --
- 25 A. Because -- sorry.

1 Q. Sorry, let me just complete. You see a ridge that
2 ascends up beyond -- you see a ridge that comes down,
3 sorry, somewhere where Mr Zeelenberg is drawing these
4 green dots and ending.

5 A. Yes.

6 Q. So it's not as if what's above 15 and 16 is completely
7 lost by movement, as I understand you.

8 A. What I'm saying is just above the descending ridge -- I
9 can't demonstrate it here but --

10 Q. It's okay, let's move --

11 A. Just above that there's a compression of the ridges and
12 for me that's due to movement and they don't take
13 cognisance of any movement. I think Mr Wertheim said it
14 couldn't be a left thumb because of ridge flow at the
15 top. Well, I would disagree with that as well.

16 Q. Mr MacPherson, I will give you the chance -- I can't
17 warrant that this will actually work but if we go now to
18 Trial Director with AZ0061.49 and we will see if we can
19 let you draw in a meaningful way.

20 That does seem that the picture is
21 actually ... there are fields where you can actually
22 draw. I don't know if that helps you at all. The
23 problem with this particular version, while we can draw.
24 It seems only to capture, I believe, one particular
25 still within a series in a slide.

1 Does that assist you? That is one in which you can
2 draw.

3 A. That would be my interpretation of the descending ridge
4 **(indicated)** but there is a compression of the ridges.

5 Maybe this is the area Mr Findlay was talking about
6 regarding a blob or a spot or whatever, I don't know.

7 **(Pause)**

8 **(Indicated)** That is very rough and I wouldn't wish
9 to be held to that but that for me, if you follow the
10 descending ridge up and it seems to merge with the green
11 dotted ridge that Mr Zeelenberg has indicated, to me
12 that is because of the movement. I think I said
13 yesterday that just where I've put the line, maybe just
14 above that slightly, the ridge structure comes up and
15 it's like fallen trees. Somebody's chopped down the
16 trees basically and they start going straight across.
17 It's very difficult to explain but, as we were
18 discussing earlier, if you are comparing these things
19 and, basically, that's how you discover this. The
20 compression of the ridges is due to movement.

21 Q. The other way we can look at this is on the right-hand
22 image, Shirley Ms McKie's, there's no doubt, it's decent
23 enough clarity, the ridge that descends from 15 down to
24 SCRO 2 has to its right two ridges, complete ridges,
25 running continuously before we encounter the point which

1 is SCRO number 1. So one requires two intermediate
2 ridges completely flowing?

3 A. No, you would require one intervening ridge and then
4 there's a bifurcation down, which is point 1.

5 Q. It's still the same, if I make that a bifurcation one
6 needs only intermediate ridge, which is the green ridge
7 running, yes?

8 A. Yes.

9 Q. Let us then look at what Mr Zeelenberg has drawn, if you
10 allow me just to use the mouse, Mr Zeelenberg has drawn
11 a point that ends at his number 2, your 1. If one draws
12 that as a bifurcation, it takes the adjacent yellow line
13 out of the numbering of the adjacent ridges?

14 A. Yes.

15 Q. Then he has drawn in what is essential for these to be
16 in sequence and agreement, the intermediate green ridge?

17 A. Yes.

18 Q. For him and for Ms McKie that intermediate green ridge
19 must remain separate from the two ridges which form 15
20 and 16, yes?

21 A. Yes.

22 Q. That then means that in the area which you have drawn in
23 as number 16 one must envisage for the length that you
24 have drawn in, in what seems to be the favourite colour,
25 magenta, there must be a ridge running for a period, for

1 a path, parallel to the green ridge. There must be.

2 A. Yes.

3 Q. Is it evident, do you say, that there is a ridge running
4 for any length parallel to what is drawn on the
5 left-hand side as the green dots? Sorry, by the green,
6 if I take the mouse I will assist by putting an arrow
7 in. The green line that I am interested in is the one
8 that I am putting an arrow to just now (**indicated**), the
9 green arrow is the green line I am interested in. That
10 is the one that is intermediate between what
11 Mr Zeelenberg has marked as points 1 and 2?

12 A. Yes.

13 Q. So what we are accordingly looking for is evidence
14 between that green line, the green line of dots, and the
15 next green line of dots to the left, if I can put that
16 in as a different colour of arrow. I will put it in as
17 a blue arrow (**indicated**).

18 Between the blue arrow, one is looking for, at the
19 lower end, two intervening ridges because there's a
20 bifurcation?

21 A. Yes.

22 Q. And at the upper section one is looking for a ridge in
23 yellow on the right-hand side that continues up and
24 between those two green field of dots, running broadly
25 parallel?

- 1 A. Yes.
- 2 Q. That is what one is looking for?
- 3 A. Yes.
- 4 Q. You say you can see that?
- 5 A. Yes.
- 6 Q. Can you demonstrate it any more clearly than you have on
7 this picture? If you wish, we can start with a clean
8 picture so you can redo it if you wish. Will we save
9 this and restart?
- 10 A. I can mark it on, if you wish. For me, the ridge comes
11 down and just about the yellow dot which I'm indicating
12 **(indicated)**, it's very thin but that's how I see it and
13 the intervening ridge and then your bifurcation at
14 number 1. Yes, I admit it's very thin, it's quite
15 watery but I can still see it.
- 16 Q. What about the ridge above because what we want on the
17 ridge above, on this interpretation, would be the point
18 above where the red dot 1 is. There is a ridge
19 continuing intermediate between the two lines of green
20 dots running for part of the journey parallel to those
21 two green areas of dots. Where is that intervening
22 ridge?
- 23 A. It's the one I'm pointing to at the moment **(indicated)**.
- 24 Q. Sorry, did you ask is it?
- 25 A. Is that the ridge that you're referring to?

1 Q. On, Ms McKie --

2 A. There's a green arrow pointing to it.

3 Q. Let us look at this. On Ms McKie I will reproduce -- if
4 you give me control of the mouse, on Ms McKie I will
5 draw in the corresponding arrows. **(Pause)**

6 Am I correct in what I've drawn, that there are two
7 continuous ridges either side of the events that are
8 SCRO 2, 15 and 16?

9 A. Yes.

10 Q. Those correspond now both on the right and the left of
11 the image?

12 A. Correct.

13 Q. So, therefore, both at the bottom of the image -- sorry,
14 bottom of the image we have to have two ridges and you
15 have drawn in, in magenta, two ridges at the bottom?

16 A. Yes.

17 Q. What I am asking you about is at the top, if it indeed
18 coincides with Ms McKie, what we are looking for is a
19 ridge which for a path continues intermediate between,
20 in parallel to, the green ridges either side and that's
21 what I am asking you to indicate to us where you observe
22 that?

23 A. Where I'm putting the cursor **(indicated)** that's the
24 continuous ridge right down and on the green arrow
25 there's the outer ridge but this is where the divergence

1 comes. Just above this point here (**indicated**) there's a
2 compression of the ridges --

3 Q. When you say --

4 A. -- so, yes.

5 Q. Mr MacPherson, we will stop at this point. You say,
6 "Just above this point here". Can you, using an arrow,
7 please -- let's make it yellow, sorry, better not do
8 yellow because some of the dots are yellow ... I don't
9 know what will work. Maybe just magenta. Can you mark
10 for me, please, where you say the movement comes in and
11 therefore, deprives us of the yellow intermediate ridge?

12 A. Are we talking about the top here where I've marked
13 where the movement is already?

14 Q. Mr MacPherson, what I am asking you is at some point in
15 this -- let's start again.

16 On the right-hand image we see two green ridges?

17 A. Yes.

18 Q. One marked with a green arrow, one marked with the blue.
19 They sandwich yellow dots. At the bottom, we have
20 covered a bifurcation. At the top, after the area where
21 15 and 16 double up -- so therefore one would see two
22 ridge pieces at that point -- above that there is one
23 ridge of yellow dots?

24 A. Yes.

25 Q. I am asking you where on Y7 we see that continuous

1 yellow dot ridge intermediate between the two green
2 dots?

3 A. Well, it's not there because of movement where I've
4 marked the blue line.

5 Q. We will just leave it. Is that the explanation?

6 A. For me, yes.

7 Q. You did say and I stopped you at that point. First of
8 all, can we save this before we lose all the work.

9 MISS BAHRAMI: That's saved as FI2810.08.

10 MR MOYNIHAN: I will explain to you where I was going,
11 Mr MacPherson, and then we will see whether it fits in
12 sensibly to depart from this order.

13 What I was going to do, as I said, was work round
14 the details just on the clock. You have said to me you
15 have some other work about the pattern of movement.

16 A. Yes.

17 Q. It is relatively sensible to look at the pattern of
18 movement before we proceed.

19 A. Mm-hm.

20 Q. Is the pattern of movement essential to your
21 interpretation of these points and would you wish to
22 explain the pattern of movement now?

23 A. Yes. I mean, would it be suitable to call up the images
24 that we had the images from Mr Kent's image and
25 Mr Swann's image?

1 Q. Which image? Are you referring to the two images that
2 we referred to at the beginning of today?

3 A. TS0002 and TS0006 I think it was.

4 Q. TS0006 is Mr Kent's image. It is what you want from
5 Mr Swann, is it his M?

6 A. M for Mike.

7 Q. You want your excerpt of his photo M?

8 A. Say that again.

9 Q. Do you want your excerpt from chart M or do you want
10 Mr Swann's chart M?

11 I will show you what Mr Swann is TS0004, I hope, and
12 we will just have to proceed through until we find the M
13 document. There is the totality of M. Is that what you
14 want or do you want your excerpt?

15 A. I can try and work from what's here.

16 Q. Mr MacPherson, you are asking me to go to a particular
17 image. Which image do you want to go to?

18 THE CHAIRMAN: Take the one you would prefer to use.

19 A. Okay. **(Pause)**

20 That, for me, roughly is where I see the movement at
21 the top **(indicated)**.

22 What I've tried to illustrate is where I see on the
23 left-hand side the movement, the characteristics that
24 we've been discussing. This is the descending ridge 16
25 **(indicated)** and it goes like so. The descending ridge

1 as you move up but you're basically into, I would say, a
2 black blob. You're into what I would call a no-go area.
3 The ridges maybe go into the area but they don't seem to
4 come back out again.

5 MR MOYNIHAN: Are you happy with that? There are a number
6 of points that come from that that I would like to ask
7 you about next but perhaps it is just as well we stop.

8 THE CHAIRMAN: Do you want to save this now?

9 MR MOYNIHAN: Save this. Save it as a pair.

10 MISS BAHRAMI: That's saved as FI2810.09.

11 THE CHAIRMAN: Good. We will resume then at 1.50.

12 **(1.00 pm)**

13 **(Luncheon Adjournment)**

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