

1

Wednesday, 30th September 2009

2 (Afternoon session)

3 (1.50 pm)

4 **ROBERT HARVEY MACKENZIE (continued)**

5 THE CHAIRMAN: I gather that we can record the slides.

6 THE WITNESS: Slide 24, sir.

7 MR MOYNIHAN: For the future I understand that

8 right-clicking the mouse will bring up the particular

9 page that we happen to be looking at on the PowerPoint

10 presentation. That is a discipline we will just have to

11 do as we proceed, not saving every page but, as we have

12 done before, saving pages from time to time.

13 THE CHAIRMAN: Thank you very much.

14 **Presentation by THE WITNESS (continued)**

15 THE WITNESS: As I said before lunch, this concludes my

16 assessment of the lower half and where my conclusions

17 came from, that this mark, Y7, was made by the donor,

18 Shirley McKie, whose left thumbprint was on the

19 right-hand image.

20 At the time of the trial or after the trial, I

21 learned that there had been criticism of the SCRO

22 officers. One, there was a suggestion that the mark had

23 been severely cropped to exclude the top area, which I

24 would now talk about as being the upper area above the

25 fault line. So this was an area that I thought was

1 relevant, that I should address when I revisited the  
2 case August 1999 onwards.

3 The position of this image being by itself, one  
4 digit, I was in no doubt that this upper area in fact  
5 had belonged to the same person who had made the lower  
6 area, but obviously I had to analyse what detail was  
7 available in that area from the materials available.

8 As I said, at that juncture, '99, September onwards,  
9 other materials in the form of these Internet  
10 impressions taken from Shirley McKie gave me the  
11 opportunity to explore over and above what information  
12 was present in the police form.

13 What I'm about to show you is what I gleaned  
14 initially in looking at this upper area from what was  
15 available in the police elimination forms and, again,  
16 because of the quality and the clarity of that left  
17 plain impression from the second form that I'd seen was  
18 what was my starting point.

19 Now, again, a lot of these images have been seen of  
20 mark Y7 and reference has been made to -- and I think I  
21 actually circled it earlier in the presentation -- this  
22 area in the upper half has been referred to in the past  
23 by some as a black blob.

24 Depending on the contrast of some of the photographs  
25 you see, and I know that explicitly in the enlargements

1 that I prepared which have mysteriously disappeared, I  
2 was able, along with the material I had and these  
3 enlargements, to then illustrate a cluster of  
4 characteristics which were present in Y7 and also  
5 present on the police elimination form. These are the  
6 next I think it's six characteristics from memory. 23  
7 through to 28. If you are looking at page 11 in the  
8 book, they are above the cluster previously referred to  
9 by Mr Smith and clarified by myself. So this is the  
10 area above the ones with 38 and 45. This is the  
11 6 points, 23 through to 28.

12 The first one I've marked is a bifurcation to the  
13 right. My explanation of this area at the top is  
14 that -- first of all, I should have said that the bottom  
15 or the lower part of the mark from an axis area round  
16 about the core has, in my terminology, swivelled. The  
17 finger has swivelled on lower of the bottom segment and  
18 that turning of the digit has continued and then been  
19 lifted off and placed on at least twice on the upper  
20 part. This part I'm describing is one of these touches  
21 in the upper half; hence the angle from what you're  
22 looking at on the screen there is off because that part  
23 of the digit has actually turned round. I've heard it  
24 been referred to as 66 degrees. I have not measured it  
25 but all I know is that in my independent analysis this

1 is an area that I found 6 characteristics. They are  
2 possibly a little clearer in the book than what is on  
3 the PowerPoint but I have endeavoured in the PowerPoint  
4 to mark them where they are in the book.

5 Point 24 is a ridge ending to the right. Point 25  
6 is a bifurcation to the right. Sorry ... 25 is a  
7 bifurcation to the right. We miss one intervening ridge  
8 from, basically, on the lower leg of bifurcation 23, you  
9 come along that leg, there's a bifurcation to the right.  
10 This you will probably remember is in the area I  
11 referred to earlier when I was referring to the print of  
12 Ms McKie on the police elim showing with the green  
13 highlighters and the same area again which was shown  
14 with the magenta highlighters on Mr Wertheim's version,  
15 which didn't show the same features as bifurcation and  
16 ridge ending in that upper group. They showed more like  
17 continuous ridges. This is what I meant by if somebody  
18 is actually looking in a particular area they may not  
19 have seen what's actually on the police form.

20 The next one is a ridge ending to the right further  
21 along the upper ridge on that last bifurcation and it  
22 comes to an end pointing to the right.

23 Then if you miss one intervening ridge going  
24 downwards there's a bifurcation to the right. So that  
25 gave me a cluster of six ridge characteristics in that

1 area and, as you will see, they are literally contained  
2 within what has been referred to previously as the black  
3 blob. But, depending on the contrast of the photographs  
4 you have and the one that I have in my presentation  
5 folder you can actually see the ridges running through  
6 that area contrary to other images that have been shown.

7 In addition to that, I've illustrated as 29 missing  
8 one intervening ridge from bifurcation to the right,  
9 number 28, there's a small incipient ridge and then  
10 missing another intervening ridge below that, another  
11 incipient ridge, numbered 30.

12 On the mark at 31 on the left-hand image -- that's  
13 on Y7, that's been marked 31 -- which is to the right of  
14 incipient ridge 29 and then below incipient ridge 31 one  
15 intervening ridge is what appears to be another  
16 incipient ridge. But on the police form it doesn't  
17 appear to be showing, as I said before, incipient  
18 ridges, depending on the pressure in particular areas  
19 may or may not show but I was conscious that there was  
20 the appearance of two further incipient ridges there  
21 more than what were showing on the police form so I  
22 noted them.

23 MR MOYNIHAN: Can I stop you there because we have reached a  
24 point that if I was going to ask you some questions  
25 about so could you tell me which image we are on just

1 now, if you right click and tell me which image you are  
2 on. It is 33.

3 Just for the avoidance of any doubt --

4 THE WITNESS: I actually clicked off it and went back to 33  
5 so 34 is the last incipient ridge, slide 34.

6 MR MOYNIHAN: Just so that I can get the numbering correct,  
7 in the upper right section there are two incipient  
8 ridges one below the other, below the last red  
9 bifurcation on the right-hand side. It's the numbering  
10 of those, looking at my book -- bear in mind I only have  
11 a copy -- those two blue incipient ridges seem to be: 29  
12 is the upper one and 30 is the lower one. You have been  
13 mentioning 31, so it is 29 and 30.

14 THE WITNESS: 29 and 30 is the first two I spoke about, yes.

15 MR MOYNIHAN: So 29 is the upper and 30 is the lower?

16 THE WITNESS: Correct.

17 At this stage, there was obviously other ridge  
18 detail that I was curious about and what we're talking  
19 about -- I don't seem to have the bar along the bottom.  
20 Oh, I can't do it on PowerPoint. If I could use the  
21 cursor, what I'm pointing to on Y7 is this **(indicated)**.  
22 Below that cluster of six, I'm pointing to the ridge  
23 ending to the right here which has come to be known as  
24 the Rosetta characteristic.

25 I'm totally satisfied that I'd found a cluster of

1 six and that's the previous numbers 23 through to 28  
2 supported at that stage by two incipient ridges, 29 and  
3 30, but I was conscious of the possibility of a further  
4 two incipient ridges to the right of them and that is  
5 why I have left them marked on the slide although  
6 there's not an equivalent on the right-hand slide and we  
7 will come to that in due course.

8 I've now circled the area, that larger area that  
9 encompasses the two features that I mentioned earlier  
10 on. That was the break in the ridges and immediately to  
11 the left of it the shape of Italy or the sock. You  
12 should be able to see them within that circle 1, 2, 3,  
13 counting the first three ridges up from that circle, the  
14 sock is in the second ridge and the break is in the  
15 third ridge.

16 I'm going to freeze the PowerPoint at this stage and  
17 move on to actually discussing the area within the  
18 circle and where I established from the Internet version  
19 or where the Internet versions of Ms McKie's left thumb,  
20 I established a further cluster within that area that  
21 was identified to Ms McKie using that Internet material.

22 THE CHAIRMAN: Do you have the number of the one that you  
23 want?

24 THE WITNESS: Sorry, I am just about to come to that. If we  
25 look at the book, page 27.

1 THE CHAIRMAN: Do you want it smaller again?

2 THE WITNESS: That will do just now for the sequence of  
3 events, the area surrounded by the circle, this was  
4 shown, I think, to Mr Wertheim momentarily and virtually  
5 rejected by Mr Wertheim as to the quality.

6 To explain that, that is a photograph taken of that  
7 relevant area from the photograph -- sorry, a  
8 photographic enlargement taken from the specific area  
9 that I have outlined in the photograph shown on page 11,  
10 just for the record.

11 It may be better now if we could put that to the  
12 side and bring the -- I know we're working from the  
13 book, it's the clarity in the book but if you want to  
14 show it on the screen so that those who don't have the  
15 book can see. Page 28.

16 The capture of that page for the system has cut off  
17 the numbers on page 28 but I will explain it because  
18 basically the white labels where the numbers start at  
19 the top and finish at the bottom so it would be easy  
20 enough to reference it to this slide if you are  
21 capturing this.

22 MR MOYNIHAN: Mr Mackenzie, what we can do, by my bad  
23 handwriting on this, we will try to insert the numbers.

24 THE WITNESS: Okay, just to make it easier for those  
25 watching.

1 MR MOYNIHAN: 33 ... it's not actually going to do it very  
2 well ...

3 THE WITNESS: I can start off at point 33. That is a ridge  
4 ending upwards shown on mark Y7.

5 THE CHAIRMAN: It is not very distinct on the Internet copy.  
6 Could you just mark where you say that is.

7 THE WITNESS: I can't do that, Sir Anthony, on the  
8 PowerPoint, or can I? Sorry, it's not PowerPoint ...

9 MR MOYNIHAN: Mr Mackenzie, just while we're considering  
10 this you may wish, sir, to study the image that I  
11 actually have because mine may be a better copy even for  
12 your purposes.

13 THE CHAIRMAN: I have one here at page 28.

14 MR MOYNIHAN: It is to see whether your copy is as reliable  
15 as mine.

16 THE CHAIRMAN: Yes, I think I have the same one. I meant  
17 the one on the Internet is not very clear. That is what  
18 I meant. Thank you. I can see it clearly on the print  
19 but I cannot see it as clearly on the screen.

20 THE WITNESS: The circle's not very big. Maybe if choose an  
21 arrow ... sorry, so if we move from point 33, one  
22 intervening ridge to the right we come to a ridge ending  
23 down which forms the top half of the ridge break, if you  
24 wish to describe it as that, which I have commented  
25 earlier there's a break in the ridge. Following that

1 down, ridge ending up 35, is the lower part of the break  
2 I previously described.

3 THE CHAIRMAN: Yes, I can see that.

4 THE WITNESS: Moving immediately left of 35 on to the next  
5 ridge and on the end of that, that's what I've described  
6 as the end of Italy or the toe of the sock -- sorry,  
7 I've jumped. Could we rerun that?

8 If we go from 35, we follow that down and then to  
9 the left of it we have 36 which is a ridge ending up and  
10 immediately to the left of that I correct that by saying  
11 that point 37 is the toe of Italy or the toe of the  
12 sock.

13 So right from my initial assessment, that area  
14 actually jumped out at me in my initial cold assessment  
15 of Y7, but up until this stage where the Internet  
16 material became available, be it of a slightly lesser  
17 quality as you can see from comparing it with the police  
18 form, it did show identical sequence of these five  
19 characteristics that I've marked that are present on  
20 Shirley McKie's left thumbprint.

21 If we go back momentarily to page 11 --

22 MR MOYNIHAN: Sorry, again, it's just the discipline of  
23 saving the image.

24 MISS BAHRAMI: That's FI3009.07.

25 MR MOYNIHAN: You can proceed, Mr Mackenzie.

1 THE WITNESS: Sorry, before we go to page 11, if we could go  
2 back to page 27 and, if I can put arrows on here, I want  
3 to actually show you how this cluster relates to the  
4 area immediately to the left that we've discussed in the  
5 morning session to show that this area is, in fact, in  
6 sequence and agreement with the area where I had marked  
7 the 22 features.

8 It confirms my assessment that the mark or the digit  
9 had swivelled so that the actual location on the mark  
10 appears to be slightly round to the right but it's  
11 actually all in sequence and agreement with the 22  
12 features already discussed. As a point of reference,  
13 and referring back to point number 1 in my presentation,  
14 I'm actually going to highlight where it is in this  
15 area. The red arrow is pointing to the ridge ending up,  
16 number 1, shown on pages 11 and 12. The second red  
17 arrow is pointing to the ridge ending down, shown on  
18 pages 11 and 12 as point number 2.

19 THE CHAIRMAN: That is the right-hand of the two red arrows?

20 THE WITNESS: Yes. Basically, as I explained before, the  
21 segmentation of the mark, the fault line cuts right  
22 across here over, as I say, the ridge with point 2 in it  
23 and then goes back up here (**indicated**).

24 What I'm trying to do is to show you in sequence and  
25 agreement from the points already discussed that this --

1 and as a reference point -- to count across to the base  
2 of Italy or the toe of the sock. If we go 1, 2, 3, 4  
3 intervening ridges, we come to the toe of the sock. If  
4 we go across on the right-hand image 1, 2, 3, 4, you  
5 come to the toe of the sock, which is 37.

6 MR MOYNIHAN: Mr Mackenzie, I've two points: first of all, I  
7 am told that there is a tool on Trial Director that  
8 would enable us to actually enter the numbers in the  
9 image better than I can write them.

10 THE WITNESS: Would it help if I put the two equivalent  
11 arrows on to there --

12 MR MOYNIHAN: Just stop, just for a second. I am interested  
13 in the left-hand image, that is page 27. Could we  
14 actually put in the numbers. The right-hand arrow, the  
15 one at we are looking at just now, is your point  
16 number ...?

17 THE WITNESS: 2.

18 MR MOYNIHAN: And the left one is point number 1?

19 THE WITNESS: Yes. If it helps I can put the arrows in.

20 THE CHAIRMAN: I think if you can put the equivalent arrows  
21 on the other side. You just need to put in the arrow.

22 THE WITNESS: Hold on, point number 1.

23 MR MOYNIHAN: If you just put the arrows in and then we will  
24 come back and number them in a second.

25 THE WITNESS: Okay.

1 THE CHAIRMAN: A great improvement on Mr Moynihan's writing.

2 MR MOYNIHAN: Fortunately, that is what I hope is the first  
3 of many redundancies on my part. I live in hope.

4 Mr Mackenzie, perhaps I am not redundant in this  
5 respect: the points that you have marked as 1 and 2, the  
6 reason I wanted those numbered, am I correct that these  
7 are the points in the SCRO charting, 15 and 16, that  
8 Mr Wertheim referred to as the handshake, and I referred  
9 to as the --

10 THE WITNESS: From memory, earlier in the week of you  
11 showing these charts, I seem to recall that that's what  
12 that would be.

13 MR MOYNIHAN: We are looking at 15 and 16 in the SCRO  
14 charting. Take your time to cross-check.

15 THE WITNESS: 15 is my number 1 and 16 is my number 2, on  
16 the SCRO chart.

17 MR MOYNIHAN: Thank you. Perhaps we should save that image.

18 MISS BAHRAMI: That's saved as FI3009.08.

19 THE WITNESS: Can we now go to page 11. I want to now look  
20 at the ones that are numbered 38 to 45, which in my book  
21 are numbered in magenta, and referred to Mr Smith  
22 yesterday and I raised that subject again this morning,  
23 that this is the area now where I found another eight  
24 characteristics which are in sequence and agreement with  
25 the area on Shirley McKie's left thumbprint but, on this

1 occasion, taken from the Internet because this area  
2 wasn't available to me on the police elimination form.

3 On page 31, if you can show that, this again is a  
4 photographic enlargement taken out of that relevant area  
5 I previously referred to a minute or two ago on page 11.  
6 On this photographic enlargement I've marked in sequence  
7 38 through to 45 and on page 32, if we can see page 32,  
8 this is the identical area within Shirley McKie's left  
9 thumbprint.

10 Point 38 I've described as a ridge ending downward.  
11 This is the characteristic that has been otherwise known  
12 as the Rosetta characteristic. I should possibly add at  
13 this stage and confirm, I think, when Mr Moynihan said  
14 earlier in the Inquiry -- I don't know who, in what  
15 order they had actually identified this characteristic,  
16 but I know that in late '99, once I received this  
17 material, established this area and what is now known as  
18 the Rosetta characteristic. I understand that the name  
19 penned to this was by Mr John Berry. I didn't later  
20 learn of his establishment of the same identification  
21 until I think it was January or February 2002. So  
22 unknown to each other we had actually been working on  
23 images of Y7 and Shirley McKie's print and had actually  
24 come to the same conclusion on this particular  
25 characteristic. So that's the history of it as far as

1 any connections that may be made.

2 MR MOYNIHAN: Mr Mackenzie, for technical reasons that I am  
3 not entirely clear about, unfortunately the image we  
4 have on the screen is not as clear as the image I have  
5 in the book form and perhaps others have. Because this  
6 is an important feature and I accept without question  
7 what you said attaching the label the Rosetta character  
8 to it was a later development, what I would like to do  
9 nonetheless is pinpoint it on this image with a degree  
10 of certainty.

11 I understand that it is located where my cursor is  
12 currently situated (**indicated**).

13 THE WITNESS: Correct.

14 MR MOYNIHAN: For reasons which I will come back to when I  
15 am asking you questions about it, the way I locate it is  
16 the shape immediately to its right has to me the  
17 appearance of a crescent moon. Is that correct?

18 The crescent shape I am marking just now -- roughly  
19 there (**indicated**). This is where you will have to help  
20 me. Am I correctly positioning the Rosetta  
21 characteristic just now?

22 THE WITNESS: Yes.

23 MR MOYNIHAN: So if I just point a point --

24 THE WITNESS: Yes.

25 MR MOYNIHAN: -- that is the Rosetta characteristic?

1 THE WITNESS: As a point of reference. Your description of  
2 a crescent, I would probably say it was quite unusual in  
3 that the way it dips down but I'm quite happy, if it's;  
4 to label it in some way or other I wouldn't necessarily  
5 describe it as a crescent shape but I understand what --

6 MR MOYNIHAN: It's a shape. It's an unusual shape.

7 THE WITNESS: It's unusual.

8 MR MOYNIHAN: Perhaps again, I am not very good at driving  
9 this machine either. What we will do is if we could put  
10 in the box number 38 so I know the red arrow is pointing  
11 to number 38.

12 What I would like you to do is save that image.

13 THE CHAIRMAN: I think we have the same problem we had this  
14 morning.

15 MR MOYNIHAN: I can recreate this one if necessary. I think  
16 we have to reboot the computer; is that the case?

17 **(Pause)**

18 Because I know what I am looking for we can recreate  
19 it so if we have to reboot, we have to reboot.

20 Mr Mackenzie, just while we are waiting, if I could  
21 ask you, I think what you actually have in front of you  
22 as your own booklet are in fact the photographic  
23 originals of all of this presentation; is that correct?

24 THE WITNESS: Yes. The left-hand is a glossy photograph  
25 from the mark.

1 MR MOYNIHAN: What about the right-hand side?

2 THE WITNESS: That's an image taken from the Internet by the  
3 IT department.

4 MR MOYNIHAN: But you have the original of it.

5 THE WITNESS: That's enlarged from what they printed off.  
6 They didn't print it on to photographic paper as such.

7 MR MOYNIHAN: Sorry, we are at crossed purposes. What I  
8 have in my booklet in front of me is a photocopy of --

9 THE WITNESS: Of the one I marked up.

10 MR MOYNIHAN: You have the original one that you marked up.

11 THE WITNESS: Yes.

12 MR MOYNIHAN: So, therefore, two things. For clarity, if we  
13 require we can display your original on the projector  
14 but, secondly, when you have finished your presentation  
15 and finished your evidence, it may actually help -- I  
16 appreciate what you said about things having been lost  
17 in the past -- but it may actually help if we retain the  
18 original just in case there is any uncertainty because  
19 the digital images are not as clear as they might be. I  
20 will not dispossess you until you have finished.

21 THE WITNESS: What you have in your various books and  
22 particularly the book you have and others have had in  
23 the past is a copy of this mark up in this page.

24 MR MOYNIHAN: When you have finished giving your evidence, I  
25 will take possession of it and I will be responsible for

1           it. If the Lothian & Borders Police need to look  
2           anywhere they can come to me.

3       THE CHAIRMAN: I think the problem is resolved.

4       MR MOYNIHAN: I am grateful.

5       MISS BAHRAMI: Saved as FI3009.09.

6       THE WITNESS: We discussed 38 as being what's now known as  
7           the Rosetta characteristic, a ridge ending to the right.

8           If we go down one ridge and along that ridge to the

9           left, we've got a ridge ending up, number 39, which

10          actually forms the right-hand part of a ridge break and

11          following along that ridge --

12       MR MOYNIHAN: Again, because the image is so poor, is my

13          cursor now pointing to that ridge ending which is number

14          39 -- sorry, it's lower, is it?

15       THE WITNESS: Yes.

16       MR MOYNIHAN: Is it where my cursor is just now?

17       THE WITNESS: Yes.

18       MR MOYNIHAN: Is it where the pen tip is? **(Indicated)**

19       THE WITNESS: Up a fraction. Yes, there.

20       MR MOYNIHAN: Perhaps we will call that one 39, please.

21       THE WITNESS: Following along that ridge to the other side  
22          of the break, the ridge ending down, number 40.

23       MR MOYNIHAN: This is where things will become rather  
24          difficult. Again, is my pen tip --

25       THE WITNESS: Correct.

1 MR MOYNIHAN: So we are going to have to just come up from  
2 it slightly.

3 THE CHAIRMAN: It's immediately opposite.

4 THE WITNESS: Yes. It's the other side of the break in the  
5 ridge, yes. The easiest way to describe it is a ridge  
6 ending. It's a feature.

7 MR MOYNIHAN: As his Lordship says, it is to the side of the  
8 arrow number 39.

9 THE WITNESS: Actually, it may be that you want on this,  
10 because of the quality of this, to actually -- although  
11 they are marked with my markers, it might be easy enough  
12 to go through this sequence and actually mark them  
13 because that area is quite dense in this copy on the  
14 screen.

15 Would you like me to?

16 MR MOYNIHAN: If you give us just a second, what we will do  
17 is save the image that we currently have. **(Pause)**

18 MISS BAHRAMI: FI3009.10.

19 MR MOYNIHAN: Mr Mackenzie, I am conscious of what you said.  
20 What we could do is start again with CO0059.033. We  
21 will start with a clean image. This is something I want  
22 to ask you some questions about hence why I am taking  
23 some time.

24 What I would suggest is that we simply put a mark,  
25 with whatever colour suits -- there seem to some red

1 marks anyway -- at the positions where these features  
2 are to be seen. First of all, if I find what I have  
3 referred to as my crescent shape, I'll put a mark. The  
4 first one I've marked is number 38. Is that correct?

5 THE WITNESS: Okay.

6 MR MOYNIHAN: Then number 40, I will mark --

7 THE WITNESS: Sorry, 39.

8 MR MOYNIHAN: 39, I am marking.

9 THE WITNESS: Mr Moynihan, if I can interrupt at that point,  
10 I am going to come on to showing another version of the  
11 same without the lines marked off and it's actually over  
12 the page which -- if we go ahead with this and then --  
13 because it's actually taken from a different image.  
14 Let's complete this part and then we'll look at the  
15 next --

16 MR MOYNIHAN: Mr Mackenzie, the only reason I am bothering  
17 to take the time is that this is an important image for  
18 the questions I want to ask you and I would like with  
19 clarity to establish where the points are and I'm not  
20 going to go too far but I want 38, 39 and 40 established  
21 just on this image.

22 So 38 I have already drawn. If I can then come to  
23 39, am I correct?

24 THE WITNESS: Yes, just up a fraction. Yes.

25 MR MOYNIHAN: So that's 39 and 40 is adjacent to it. Is the

1 ridge ending in this vicinity, yes?

2 THE WITNESS: Okay.

3 MR MOYNIHAN: If I put in arrows, we have the three

4 points 38, 39 and 40 and, again, if I could ask that

5 those numbers be inserted, beginning where the cursor is

6 just now as 38 and going round the clock, 39 and 40.

7 Could we save that image, please?

8 MISS BAHRAMI: FI3009.11.

9 MR MOYNIHAN: I interrupted you so I will let you gather

10 your thoughts and then you can proceed.

11 THE WITNESS: If we go along the ridge with the Rosetta

12 characteristic going back to the left and up one ridge,

13 marked as number 41, is a bifurcation to the right.

14 Would you like me to add a marker on to this?

15 MR MOYNIHAN: We have saved these image so we can either

16 start again with a fresh image or add to this if it's

17 readily visible when we add it in but as you please.

18 THE WITNESS: I think it might be better to actually save

19 that and take them off because if I start drawing

20 arrows, we've seen with previous ones it confuses.

21 MR MOYNIHAN: This has been saved as FI3009.11. So what we

22 will do then is start again. There is a clear image of

23 CO0059.033.

24 You can start again, Mr Mackenzie.

25 THE WITNESS: This is the bifurcation here. You come up

1 back along from the Rosetta characteristic and come up  
2 one and you have a bifurcation to the right where the  
3 arrow is pointing to and that is number 41.

4 THE CHAIRMAN: Has it got a --

5 THE WITNESS: Sorry, can I change this? The arrow is  
6 actually going to interfere with the next couple.

7 The arrow is now pointing to the bifurcation one  
8 above the ridge where the Rosetta characteristic is.  
9 That's going back to the left, along the ridge from the  
10 Rosetta characteristic and up one is a bifurcation to  
11 the right.

12 THE CHAIRMAN: Do you want to number that? That is 41.

13 THE WITNESS: Yes. If you want to number them as I go  
14 along, it's not a problem. It's just I'm more concerned  
15 about crossing over arrows. I'm trying to avoid that.

16 If we move one above that bifurcation and slightly  
17 to the right, there's a ridge ending I've described as a  
18 ridge ending upwards, number 42, which I'll indicate  
19 with an arrow. If you want to label that one 42.

20 Then immediately above that and a fraction to the  
21 right is ... sorry. Sorry, to keep this in sequence I  
22 was actually going to go to the one above it, that is  
23 actually number 45, so to follow in the sequence --

24 THE CHAIRMAN: Take them whatever order you want.

25 THE WITNESS: I think if I mark them with the arrows and

1           then you put the numbers on I can tell you which ones,  
2           it might be simpler. The one I've just indicated is 45.

3       THE CHAIRMAN:   You just put the arrows in.

4       THE WITNESS:    I should have said that 43 is a ridge ending.

5           No, 43, sorry, is a bifurcation to the right. 44 is a  
6           ridge ending to the right. The one I marked earlier out  
7           to the side was a ridge ending to the right, number 45,  
8           this one on the right-hand side.

9           You can label them now. So, basically, of the three  
10          arrows that are unlabelled: the left-hand one is 43,  
11          that's a bifurcation to the right; the next one which is  
12          a ridge ending to the right is 44; and the last one is  
13          45.

14          I have described -- and I remember back from  
15          Tulliallan nine years ago, describing the shape here  
16          between 44 and 45 and I'm pointing to it with the cursor  
17          just now (**indicated**) -- in that the ridges are kind of  
18          stepped. The way I described that, indicating with the  
19          cursor -- would you like me to try and -- I'm not keen  
20          on drawing lines but would you like to try and draw the  
21          shape of what I'm trying to describe, would that help?

22       THE CHAIRMAN:   Yes, whatever you think presents your --

23       THE WITNESS:    It's just I'm not confident on drawing lines.

24       MR MOYNIHAN:    Mr Mackenzie, it's actually fine. Probably  
25          what is better -- it's simply due to the poor quality of

1           our digital reproduction of your own item -- so what is  
2           better is if you want to just highlight by let's say a  
3           yellow circle the particular feature. I will bring it  
4           up so we can get a yellow circle and then if you proceed  
5           just to mark the feature.

6       THE WITNESS:   Contained within that I say there's a kind of  
7           stepping feature of the ridge and that is something that  
8           caught my eye and it caught my eye in the mark as well.  
9           It's possibly when we come to page 33 over the page it  
10          might even be clearer -- maybe -- but how I described  
11          that was if you know what an old fashioned plane, as in  
12          woodworking plane, looks like or a carpenter's plane,  
13          the shape in the bit that comes down with the blade,  
14          that's what that reminded me of. To actually picture it  
15          in my mind that particular feature and that's what that  
16          reminded me of, the carpenter's plane with the blade  
17          coming down.

18                 That's what I've just illustrated was a photographic  
19                 enlargement from the enlargement on page 11 and on the  
20                 right-hand page, page 32, the image taken from the  
21                 Internet or one of the Internet images of Shirley  
22                 McKie's thumbprint.

23       MR MOYNIHAN:   If we could save this one.

24       THE CHAIRMAN:   Maybe when it is saved we should try to stick  
25                 to our set hours and rise for ten minutes.

1 MISS BAHRAMI: That is image FI3009.12.

2 THE CHAIRMAN: We will sit again then a couple of minutes  
3 after 3.00.

4 **(2.52 pm)**

5 **(A short break)**

6 **(3.03 pm)**

7 THE CHAIRMAN: Yes, Mr Mackenzie, if you would like to  
8 continue.

9 THE WITNESS: What I have done during the break there is  
10 I've actually traced round the shape of the plane to  
11 show you. I'll enlarge it to show you what I meant.

12 THE CHAIRMAN: Maybe we should save that. This is the plane  
13 shape that you referred to.

14 MISS BAHRAMI: That's FI3009.13.

15 THE CHAIRMAN: Do you want us to come back out of this?

16 THE WITNESS: Oh, yes. That's it.

17 I mentioned before the break there that I'd done  
18 similar marking of these points on another image and  
19 it's on page 33, which is the next page. Could you turn  
20 it so 33 is down in the bottom right-hand corner? Could  
21 you turn it clock-wise? I've indicated the direction  
22 with the red arrow there **(indicated)**. The image is on  
23 here.

24 Likewise, where I said the previous one was a  
25 photographic enlargement from the relevant area on mark

1 Y7, on this page on the left-hand side is an enlargement  
2 taken from the Internet image of mark Y7 in the same  
3 area. On the right-hand side, the same area as we've  
4 referred to on page 32 but enlarged. That's taken from  
5 an Internet copy of Shirley McKie's left thumbprint.

6 Again, Mr Moynihan, the image I have in my page 33  
7 is a lot clearer than what's on the screen.

8 MR MOYNIHAN: In fact, Mr Mackenzie, I think the advantage  
9 of having the paper one was to enable everyone to follow  
10 and realise in fact that the digital images are as poor  
11 as they are.

12 What I have said, sir, to Mr Mackenzie is we have  
13 found some other documents that we can get better copies  
14 by resubmitting them to Epic to have them copied in  
15 higher resolution. It's obvious that Mr Mackenzie's  
16 presentation would benefit from that exercise.

17 Unfortunately, that will have to be done after he has  
18 completed his evidence. I do apologise to Mr Mackenzie.

19 THE CHAIRMAN: Should we give it the number that it would  
20 otherwise have been given had it been clear so that it  
21 can be interposed at that number?

22 MR MOYNIHAN: I think, sir, what is likely to happen is that  
23 the whole production will be recreated and we will be  
24 able to follow very easily because what has happened  
25 with other productions of this type is that what we have

1 just now as CO0059 will become CO0059H, the H standing  
2 for higher resolution but then the internal pagination  
3 will remain the same. So what we are looking at just  
4 now is CO0059.034 and that will be reproduced, I am  
5 sure, in better clarity in due course.

6 I do think, unfortunately, members of the public  
7 will have difficulty seeing this but I think for those  
8 of us who have booklets it's a little clearer.

9 THE WITNESS: As far as page 33 is concerned, I am quite  
10 happy to replicate again what we have done on the  
11 previous one but if you are satisfied and if you have  
12 better images of this then the red dots certainly on  
13 what I have here stand out. You can hardly see them on  
14 the screen. If you're happy, I'm quite happy to go  
15 through and try and label them as was on that screen but  
16 they are certainly clear on the hard copy, a lot  
17 clearer.

18 MR MOYNIHAN: I think, Mr Mackenzie, it is probably  
19 sufficient if you, sir, can see them in the book form.

20 THE CHAIRMAN: I can, yes.

21 MR MOYNIHAN: We will come back then. I do apologise to the  
22 members of public who are having to watch this. It is  
23 entirely our fault that the image is as poor as it is  
24 but if we save time and just proceed.

25 THE WITNESS: Okay.

1                   The reason for doing this again was to utilise the  
2                   material that was available so to try and illustrate  
3                   that this particular group of characteristics I used  
4                   both what I could glean from the Strathclyde photograph  
5                   and also from the Internet version of Y7. So,  
6                   basically -- I was going from both angles, basically,  
7                   here's material on the Internet and here's from the  
8                   glossy photograph to try and get the best illustration.  
9                   So I've included both.

10                  Page 34, 35 and 36 are images again taken from the  
11                  Internet of mark Y7 and these show what has been again  
12                  termed the brush mark or striations, whatever, basically  
13                  running horizontally across the mark. I still  
14                  personally would like to have satisfaction of knowing  
15                  how this occurred and presumably the Inquiry would as  
16                  well, but I have to draw conclusions as to the actual  
17                  area that this occurs, in that in my opinion it occurs  
18                  directly above the fault line, as I have previously  
19                  described.

20                  If I may just go off for a minute and explain how I  
21                  first heard of another image and it was following the  
22                  trial of Shirley McKie I was given the opportunity by  
23                  Chief Superintendent Bell to view a note that had been  
24                  taken by an officer from Strathclyde Police --

25                  MR MOYNIHAN: Mr Mackenzie, if I can try and deal with this

1           lest we get ourselves into more difficulty. If I  
2           understand you, please just answer yes or no: are you  
3           going to suggest that the striation has been placed  
4           there deliberately by someone to conceal the fault line?

5    THE WITNESS: I'm saying that there's a coincidence that has  
6           appeared across the fault line. In the absence of  
7           explanation that I can't make any other comment other  
8           than it occurs directly above the fault line.

9    MR MOYNIHAN: The second point is that -- let's be very,  
10           very careful about this. All that we know as a point of  
11           history is that if we take as the last set of undamaged  
12           photographs, Mr Kent's photographs are undamaged.

13           Correct?

14   THE WITNESS: Correct.

15   MR MOYNIHAN: Mr Zeelenberg's photographs are damaged?

16   THE WITNESS: Correct.

17   MR MOYNIHAN: From which the inference may be drawn that  
18           some damage occurred between the dates of those two sets  
19           of photographs.

20   THE WITNESS: Correct.

21   MR MOYNIHAN: Mr Wertheim, sorry -- damage occurred between  
22           the dates between Mr Kent's photographs and  
23           Mr Wertheim's photographs. Correct?

24   THE WITNESS: Correct.

25   MR MOYNIHAN: But there is no evidence I suggest to you as

1 to who actually damaged the mark.

2 THE WITNESS: No evidence has been brought forward.

3 MR MOYNIHAN: It may be that from Dr Bleay's report that one

4 possibility is that it has been damaged as a result of

5 twine that was attaching a label to the exhibit between

6 those two dates.

7 THE WITNESS: Okay. If I could add on that point --

8 MR MOYNIHAN: I want to be very clear. Why I am trying to

9 stop you is I don't want to entertain conjecture about

10 the cause of the damage.

11 THE WITNESS: I wasn't actually going to do that.

12 MR MOYNIHAN: With that warning, please, continue.

13 THE WITNESS: I was going to explain when my first knowledge

14 of a different version of the photograph had come to

15 mind. That was all. I had been given access to a

16 record that was taken in the High Court by a Strathclyde

17 police officer who -- Strathclyde, I think, in these

18 days, it was a Discipline Branch. They are called ...

19 whatever, personal ... I can't remember but they've

20 renamed the department anyway. Basically, they had an

21 officer observing the proceedings for whatever reason

22 and I was given sight of his notes and he had recorded

23 in it that, it was at some point in Fiona McBride's

24 evidence, that she had apparently noticed there was

25 something different about Mr Wertheim's production when

1 she was shown it and that was the level of my knowledge.

2 So until such times as, I think it was at

3 Tulliallan, very briefly, at the end of the Tulliallan

4 presentation, very briefly, Mr Wertheim's production was

5 shown and later on that week -- it's in my statement --

6 I formally asked if I could actually examine that and

7 that's when I then -- that was confirmed that there was

8 a different photograph being used. So that's the point

9 I just wanted to make.

10 MR MOYNIHAN: The police officer whose notes you would have

11 seen would have been Inspector Carle, C-A-R-L-E.

12 THE WITNESS: I do understand that is the name, yes.

13 MR MOYNIHAN: We have access, as you understand, to his

14 notes.

15 THE WITNESS: That was the chain of events, to put it into

16 context.

17 So what happened actually was, as I say, the IT

18 department had alerted us to items on the Internet,

19 given me these various printouts and it was Mr Bell

20 actually who -- because, prior to this page, I had done

21 my analysis, my comparison against the Strathclyde

22 material and also against the additional images of the

23 thumbprints, the control print taken by Mr Wertheim, and

24 I was going to just show these images from the Internet,

25 the mark in the book unmarked. It was Mr Bell that

1           said, "Have a go and mark on the points that you can  
2           see", and again, probably for the same reason that I'd  
3           said earlier on in my evidence, that I was wondering why  
4           people, even on the Internet, couldn't see. So I  
5           thought, one, the Chief Superintendent was asking me to  
6           do it. I'll do what I can. Hence on 34, 35, 36 there  
7           are a series of red dots marking the characteristics in  
8           the various clusters and that was a result of what I was  
9           asked to do.

10                 I think something that's actually very noticeable is  
11           that, particularly on page 35 and 36, the area  
12           previously described as the black blob, the contrast and  
13           again in my original copies that I've been given from  
14           the Internet actually show the ridge detail running  
15           through this area. There's a particular feature, if I  
16           could actually refer to the characteristic, it's my  
17           characteristic number 41, which is a bifurcation to the  
18           right, and this is the one immediately above and along  
19           to the left of the Rosetta characteristic.

20                 For me, looking just recently within the last few  
21           days, the images on 35 and 36, in particular 36,  
22           actually show this bifurcation quite clearly on the  
23           mark. I thought it was relevant. I hadn't noticed this  
24           in my previous presentation but I actually noticed this  
25           and I thought that's relevant, I should bring that out,

1 so I brought it out.

2 MR MOYNIHAN: You will need to help us because for those of  
3 us who have the benefit of something with the red dots  
4 visible in page 36, all that we actually have is a polka  
5 dot of dots. We don't have any numbers. So feature  
6 number 41 that say is visible on page 36, is there some  
7 way you can actually indicate?

8 THE CHAIRMAN: Shall we bring up 36. That is 41.

9 THE WITNESS: That is 41.

10 MR MOYNIHAN: If you have finished with that one,  
11 Mr Mackenzie, if we save that particular image, please.

12 MISS BAHRAMI: That's FI3009.14.

13 THE WITNESS: Before I move back to the final part of the  
14 presentation, which is the PowerPoint again, I should  
15 add that when I came to this upper half I said that my  
16 opinion was that this was at least two touches on the  
17 upper half.

18 Now, the clusters that I've described, first of all,  
19 as 23 through to 28 is a separate touch from 38 through  
20 to 45, but within these characteristics there are  
21 actually common characteristics. That's how I know it's  
22 more than one touch.

23 The characteristics in question are, starting with  
24 the first group, 26, which is a bifurcation to the  
25 right, is in fact 41, a bifurcation to the right; 27,

1 the ridge ending to the right, is in fact 44 which I  
2 have described before as a ridge ending downwards but  
3 it's basically the same to the right; and 28, which is a  
4 bifurcation to the right, is the same as 41, a  
5 bifurcation to the right.

6 MR MOYNIHAN: Sorry, you have said 26 is 41 --

7 THE WITNESS: 26 is 43.

8 MR MOYNIHAN: Sorry you said 41. 26 is ...?

9 THE WITNESS: 43.

10 MR MOYNIHAN: 26 is 43 --

11 THE WITNESS: 27 is 44, 28 is 41. So that's how I come to  
12 the conclusion that's it at least in two parts in the  
13 top.

14 Can we now return to the PowerPoint presentation.

15 You will remember prior to describing the features in  
16 the upper half I also went on to describe the five  
17 characteristics in that area. I've also mentioned that  
18 I have completed the ridgeology course as originated by  
19 Mr Ashbaugh and also taken cognisance of what the FBI  
20 have done in the way of third level detail. This area,  
21 which I mentioned right at the beginning of my  
22 presentation, actually was standing out in my initial  
23 analysis as an area of interest. I thought that given  
24 the knowledge and the processes of illustrating third  
25 level detail, which includes edgeoscopy, the actual

1 shape of the ridges, then I wanted to look at this area  
2 in more detail.

3 What I have done, because of trying to match like  
4 with like and scale with scale, there's some difficulty  
5 in trying to enlarge a mark taken from the police  
6 material and reconciling it with images of Ms McKie's  
7 left thumb from the Internet. But as Mr Wertheim had  
8 provided images of the mark and images of the left  
9 thumbprint on the Internet, I thought the best way  
10 forward for this was to actually use like with like.

11 So what I then did was -- I think it's on your  
12 system somewhere -- but I actually show an example like  
13 this **(indicated)** which actually shows an area to the  
14 right of mark 7 taken from one of the Internet images  
15 and I've put the red circle on, which is the same area  
16 as circled on the PowerPoint here, to capture the same  
17 area as within that circle in here **(indicated)**. Then on  
18 the same area, which is off to the right of this plain  
19 impression on the police plain impression shown here,  
20 it's actually off the edge but shown, which I've already  
21 described when I went through these five  
22 characteristics, the appropriate area from Ms McKie's  
23 left thumbprint taken from the Internet.

24 So in other words Internet mark **(indicated)**;  
25 Internet left thumb **(indicated)** so as to accommodate

1           scaling the same.

2       MR MOYNIHAN:   If you could just give me a second, what I  
3           will do is ask them to be brought across to us so we can  
4           have a look.

5       THE WITNESS:   If not, you can take these.

6       MR MOYNIHAN:   If not, what we will do is put them up on the  
7           projector so everyone can see them.

8           I think these are actually on your PowerPoint  
9           presentation so we should be able to bring it up as part  
10          of it.

11      THE WITNESS:   Not in that format. That's why I was pointing  
12          out so as you know exactly when we come to the next bit  
13          of the PowerPoint where they were taken from. So that's  
14          actually evidence where they came from.

15      MR MOYNIHAN:   If you allow me just a moment, please.

16          **(Pause)**

17          They are apparently at the end, for us, of CO0059.  
18          They are not in anyone's notebook, I'm afraid, or at  
19          least not in mine. Could we just go to the end.

20          **(Pause)**

21          Mr Mackenzie, what I will do is to save time I will  
22          ask for these to be displayed --

23      THE WITNESS:   Can you take these off the screen because it's  
24          rather --

25      MR MOYNIHAN:   They have to come off the screen anyway. So

1           what I will ask is these be displayed and will begin  
2           with one that is on the edge of the fingerprint of  
3           Ms McKie.

4    THE WITNESS:   Sorry, mr Moynihan, would it not be better for  
5           me to run through the sequence and then you glean the  
6           material after?

7    THE CHAIRMAN:   Are those the ones you are speaking about?  
8           Is that what you are speaking about?

9    THE WITNESS:   It's just the introduction to where the  
10           material came from, the explanation of it. This is the  
11           second image.

12   MR MOYNIHAN:   Miss Gilpin has an encyclopaedic knowledge of  
13           these documents. She tells me that TC0019 is what we're  
14           looking for. TC0019.

15           There's apparently four sheets, Mr Mackenzie, on  
16           here. So what we will do is scroll through the four  
17           sheets so you can see what we have and then you can tell  
18           us which of them you wish to use.

19           That is TC0019, page 1. If we go to page 2, page 2  
20           has a tracing; page 3 would seem to have the edge of the  
21           print, which is one of the sheets you have shown me; and  
22           page 4, another tracing.

23   THE WITNESS:   It may not be the order I take them in but  
24           that's the material we're talking about.

25   MR MOYNIHAN:   In that case if you tell me we will scroll

1 back through them and you tell us to stop at the image  
2 you want to begin with. It is obviously not 4. Go back  
3 to 3.

4 Is that one of the images you want to talk about or  
5 the alternative, I think, is number 1.

6 THE WITNESS: Yes, that's number 1, that's number 2. So  
7 that's number 1.

8 MR MOYNIHAN: So you want to start at number 1. TC0019.001.

9 THE WITNESS: My explanation is to prove the audit trail, if  
10 you like, of where that came from and that is the area  
11 that I then go on to enlarge.

12 Now, I can't remember the amount of enlargement,  
13 whether it's from the actual size mark but, from memory,  
14 from the actual size mark up to the image I'm going to  
15 show you shortly is something like about 26 times  
16 enlarged. That's somewhere between 22/26 times enlarged  
17 is the recommended size for examining ridgeology in  
18 Mr Ashbaugh's term or ridgeoscopy, et cetera. That's  
19 the approximate or optimum size to enlarge. So I can't  
20 remember exactly how this was. It may have been 22, 23.  
21 It may have been as much as 26 from the actual size but,  
22 as I say, this is purely for the audit trail.

23 This came from one of the Internet images supplied  
24 by Mr Wertheim of the mark Y7. Then the next one, which  
25 I have as number 2, is the appropriate area taken from

1 one of the Internet thumb marks of Shirley McKie, again,  
2 used within the presentation book, the appropriate area.

3 3 is going back to the mark, the area of the mark,  
4 and 4 is going back to the area from the left  
5 thumbprint. So that establishes where the material came  
6 from, if you can take that away now and I'll go on to  
7 the PowerPoint.

8 MR MOYNIHAN: Again, you need to tell us, Mr Mackenzie,  
9 which page and I think what you have to do is click  
10 through the pages to resume where you wish.

11 THE WITNESS: That is basically an enlargement from what I  
12 have shown you on what I referred to as page 1 a minute  
13 ago. That's the edge of the mark enlarged up and, from  
14 memory, this is something in the region of 22 to 26  
15 times enlarged of the actual size mark.

16 I think I should add at that point before I forget  
17 my train of thought that within these courses it's been  
18 suggested that applying third level detail in this very  
19 fine, drilling down to this level of detail can normally  
20 just be applied within marks of a small number of  
21 ridges. You wouldn't expect to, for example, to take to  
22 the extremes a palm-print, to try and enlarge it 22/26  
23 times, a whole palm-print. So actually to get within  
24 accuracy, within a small number of ridges, the only  
25 other factor to remember is that Y7 is a chance

1 impression and we know it's already subject to major  
2 distortion and twisting; whereas the version, the police  
3 version and also Mr Wertheim's version, is a controlled  
4 print taken in a controlled situation and may not have  
5 the same distortion or will probably not have the same  
6 distortion as the mark, where you would expect to have.  
7 So just to add that is another element that's brought  
8 into account in the overall picture I'm giving here.

9 So that's the area highlight in there. If there was  
10 anything I would have done again in this I wouldn't have  
11 actually highlight it in yellow because I think it  
12 detracts a little from it but it was done with the best  
13 of intentions, to segment that area within the bigger  
14 image for illustration purposes. If I was to go back  
15 and start again, I wouldn't have been putting the yellow  
16 on there. You can probably see why.

17 So take a few minutes to actually take in the detail  
18 with your eye, everybody, experts and non-experts. Take  
19 in the area that I've talked about. I've already  
20 described some of the features in second level within  
21 there. Just take a second or two to have a look at  
22 that. **(Pause)**

23 We will move on to the next slide. Again, this is  
24 taken from my page 2 of my material and it's the edge of  
25 one of the Internet thumbs shown in the book showing the

1 appropriate area and, again, enlarged up to the same  
2 level of enlargement as the one from the mark. Again,  
3 take a few seconds out for your eye to take in the  
4 detail. **(Pause)**

5 As you can see, this area we're talking about maybe  
6 coming in from the edge probably about five ridges plus  
7 parts of ridges at the edges but certainly the central  
8 part of this is we're talking about an area of five  
9 ridges and enlarging to this level you start to talk  
10 about ridge units, et cetera, like Mr Wertheim, I think  
11 mentioned.

12 The next slide is a side-by-side again. On the  
13 left-hand side it's from my page 1 and on the right-hand  
14 side is from my page 2 of this material. As I've  
15 explained already, a slight curvature in the left-hand  
16 image due to it being a chance impression and my  
17 knowledge that the mark is twisted somewhat and the  
18 controlled impression is slightly straighter, the ridge  
19 formation.

20 You will see what I meant about not highlighting in  
21 yellow. In hindsight I would have put a circle round  
22 before these markings were on and shown the area like  
23 that **(indicated)**. So that's page 1 now with tracings  
24 done round the shapes of the ridges, the ridge units  
25 themselves.

1 I've put descriptors on here for my own purposes of  
2 how I would describe some of these features. We've  
3 already spoken about indicating with the cursor here and  
4 that's like two ridges in from the left on this image is  
5 the shape of Italy without the heel or the sock which we  
6 saw quite clearly in my earlier illustrations on a  
7 smaller scale.

8 I've then talked over time about this next part here  
9 **(indicated)**. I've described it in the past as a bit  
10 like a foetus, it's got a head and a body. Someone else  
11 suggested to me -- it was actually somebody in my family  
12 that referred to this and they actually said it's maybe  
13 a bit like Venus without the arms.

14 If we move to the right, a prominent shape here  
15 **(indicated)**. How exactly I would describe this part I'm  
16 indicating here I'm not quite sure, maybe a bit like a  
17 serpent, this being the head **(indicated)** and immediately  
18 above that I liken this to possibly like a valve within  
19 an engine, a valve coming down from the top, the shape  
20 of this. So that's the kind of names, if you like, that  
21 I've got in my head of these particular features.

22 Likewise, I then traced round the edges from the  
23 image that was shown on page 2 and I've now shown on  
24 page 4 and that's what this is. We have the sock, we  
25 have the foetus, we have the serpent, we have the valve

1 and the stem of the valve up here (**indicated**) and then  
2 we have them side-by-side. The mark on the left, the  
3 left thumbprint on the right. The sock or Italy, the  
4 foetus or Venus. The foetus, the serpent, the serpent,  
5 the valve and the stem of the valve.

6 Also another prominent feature is two out to the  
7 right of the serpent. You can see the ridge units  
8 joining in a bit like a kind of delta formation, if you  
9 like, where there's an indentation where one unit joins  
10 the other and it's very prominent up here (**indicated**).

11 Also, another feature is a very square edge. On the  
12 ridge between the foetus or Venus and the serpent there  
13 is the particular shape of the edge of this ridge unit  
14 which is very square, a bit like a table top, I would  
15 suggest, as opposed to the more irregular rounded  
16 features of each ridge unit which surrounds or they  
17 surround pores and on the ridge here (**indicated**) between  
18 the foetus or Venus and the serpent, again in the same  
19 area, the very square appearance of this ridge unit.

20 Going down to the bottom of the print on the right,  
21 again, a square shape appearing as this left-hand ridge  
22 joins on to the ridge below the sock point. Equally, on  
23 the mark side, this squareness where it comes to nearly  
24 join on to the ridge below the sock feature.

25 I then took a tracing from the control print because

1 that's the more accurate one for recording of the detail  
2 and bearing in mind that there is a twist on the mark  
3 then that's taken into account. I took a transparency  
4 tracing over this side (**indicated**), which is the next  
5 slide, so that is a replica of that (**indicated**). We can  
6 see over here because of the slight twist in the print,  
7 very marginally, a difference in the position of this  
8 and you will get that possibly a ridge/half a ridge  
9 slight difference between a scene of crime mark and a  
10 control print. That's what we were taught on courses  
11 and going from the FBI that there will be these marginal  
12 differences. It was due to that knowledge that I  
13 gleaned from two different parties, from Mr Ashbaugh and  
14 the FBI, I applied this to this presentation.

15 Over and above my original initial assessment and  
16 the comparison of the lower half of the mark, this along  
17 with the various areas in the upper half of the mark led  
18 me to conclusively come to the opinion that this mark  
19 was made by Shirley McKie and no other donor.

20 That concludes my presentation for Y7.

21 THE CHAIRMAN: Thank you.

22 Mr Moynihan, ten minutes, if you would like to  
23 begin.

24 **Examined by MR MOYNIHAN**

25 Q. I can start.

1                   Mr Mackenzie, you have indicated just by the title  
2                   of your presentation, "McKie case revisited", do I take  
3                   it that the detailed work that was carried out by you  
4                   was something of an investigation after Ms McKie was  
5                   acquitted to see if you could reconcile, in a sense, the  
6                   evidence that was given by your colleagues on behalf of  
7                   the prosecution and the evidence given by Mr Wertheim?

8       A.    I didn't take into account -- and I'll come back to this  
9            in a minute -- the politics of it, if you like, maybe  
10           that's not the right phrase, but I didn't take into  
11           account what my colleagues had taken to court.

12                   It was because of the events that happened in that  
13                   particular trial, the outcome of it and the way in which  
14                   the evidence was presented by SCRO in general and the  
15                   way that Mr Wertheim presented his evidence to the jury  
16                   and, obviously, the jury were presented with two  
17                   opposing views and styles of presentation.

18                   Obviously, the outcome and some of the outspill from  
19                   it, the inferences and a lot has been written about it,  
20                   I think has been touched on it, about cropping of marks,  
21                   ignoring the upper section, et cetera, and that was an  
22                   area that obviously struck a chord. I think that's  
23                   recorded -- and it's recorded in the Inquiry -- that in  
24                   the meeting that we had with Mr Murphy after the trial,  
25                   that that was an area that was discussed about the

1 non-explanation, if you like, of the upper half of the  
2 area or the suggestion, just because the SCRO officers  
3 chose, which was the norm for any enlargement-type  
4 situation, to highlight the area that they identified.

5 There was nothing untoward in that but, because of all  
6 the inferences that were going on and being aired  
7 publicly, then obviously as far as I was concerned and  
8 obviously my bosses were concerned that, as soon as it  
9 was possible to get the material back from the court,  
10 which didn't occur until early August 1999, then that  
11 would be the first opportunity to revisit the case and  
12 that's basically how I titled it.

13 Q. What you were trying to do was, among other things, to  
14 revisit it to see if an explanation could be given for  
15 the points of difference that Mr Wertheim had identified  
16 in his evidence?

17 A. Well, obviously that was an area that had been highlit  
18 and very publicly highlit.

19 Q. When you yourself studied Y7 you did so twice in  
20 February 1997?

21 A. Yes.

22 Q. You found a maximum of 13 points in sequence and  
23 agreement. Those were in the lower half?

24 A. Yes.

25 Q. You discounted the upper half due to your perception at

1 the time that it was affected by distortion?

2 A. Correct.

3 Q. However, when you revisited the matter in the last  
4 quarter of 1999, you discovered that not only were there  
5 features in Y7, the upper part, but in fact you could  
6 find at least 23 points in the upper part in common  
7 between Y7 and Ms McKie?

8 A. Let me just check that again. It doesn't sound right,  
9 23.

10 Q. If you look at page 11, you have a total of 45, 22 of  
11 which (1 through to 22) were in the area of your  
12 original charting.

13 A. I think you are including 33 to 37 in that. I've  
14 explained that obviously with the benefit of having  
15 other material at that later stage that -- and I've  
16 explained to you as well the distortion, the swivelling,  
17 as I describe it, of the lower half but it is confirmed  
18 that that area, 33 to 37, is in sequence and agreement  
19 with the lower half.

20 Obviously that area wasn't available for me in 1997  
21 with the material that was available to me.

22 Q. Let us just have a look at that. If we bring up  
23 Mr Zeelenberg's charting, FI0170A and perhaps do the  
24 usual, bring it up twice.

25 In your phase 2 comment on Mr Zeelenberg, you are

1 one of the individuals who has pointed out that the  
2 Rosetta characteristic is, in Y7, the feature that  
3 Mr Zeelenberg has numbered 11?

4 A. No, number 14.

5 Q. No, number 11 on Y7.

6 A. Sorry, number 11, yes, on Y7.

7 Q. The Rosetta characteristic you are saying has come from  
8 the area on Ms McKie's print which is numbered 14?

9 A. Correct.

10 Q. Yes?

11 A. **(Nodded)**

12 Q. Do you know the source of the image of Y7 and the source  
13 of the fingerprint of Ms McKie that you have displayed  
14 before you?

15 A. My understanding is that that's an original on the  
16 left-hand side of Y7 and I think I'm correct in saying  
17 that that would be the plain impression from the first  
18 form I looked at.

19 Q. So the image of Y7 is a reproduction from the negative  
20 of the picture of Y7 that your colleagues signed when  
21 they first identified Y7 as Ms McKie's print. Yes?

22 A. Yes.

23 Q. The fingerprint that we have brought up as part of the  
24 comparative exercise is similarly a fingerprint taken  
25 from the form available at the same time. That is the

1 form that is date stamped 7th February. Yes?

2 A. I don't know what it's date stamped.

3 Q. If you take it from me it's date stamped 7th February,  
4 it would have been available, therefore, and would have  
5 been among the material you first studied in  
6 February 1997?

7 A. If you can clarify that that is the form that I looked  
8 at on the Monday, I think somewhere along the line in  
9 the Inquiry did I not hear that there was another set of  
10 prints?

11 Q. There's multiple sets of prints. If I show you -- I  
12 will show you ST -- take these two down just now and  
13 bring up ST0004H. We will proceed on. That's a form.  
14 The date of the fingerprint, the elimination form, is  
15 6th February 1997.

16 A. Okay.

17 Q. It's date stamped 7th February 1997?

18 A. Okay.

19 Q. Are you willing to accept from me that the fingerprint  
20 that's used as part of the comparative exercise is a  
21 version that's shown on this form of Ms McKie's left  
22 print?

23 A. If you tell -- I wasn't party to selecting that for the  
24 exercise but if you're telling me that's the one. The  
25 only point I was making was that, for the first time

1 ever, I learned that there was possibly -- as far as I  
2 was aware there was only two sets of elimination prints,  
3 the two that I looked at, but I think somewhere in the  
4 Inquiry I heard -- and I don't know whether it was round  
5 about that date -- of another set of elims being taken.  
6 Am I wrong in that?

7 Q. I am aware of prints taken on 6th February that you see.  
8 I 'm aware of prints being taken on the second occasion  
9 when you looked at the print, would that 18th February?  
10 I am aware of prints taken the following year in  
11 March 1998 on her arrest. Three sets of prints taken by  
12 the police.

13 A. That's fine. I'm satisfied with that. I just thought  
14 earlier in the Inquiry there was questions put to some  
15 witnesses about another comparison having been -- am I  
16 confusing that with another set of marks? There was  
17 something ...

18 Q. I think you are confused. I don't know the origin of  
19 the confusion.

20 A. Just, if you are saying there only were two elim forms  
21 and the arrest form I'm satisfied that that would be the  
22 one I looked at first of all.

23 Q. The reason for my question then is, if we go back,  
24 please, to the Zeelenberg copy just for clarity, that's  
25 FI0170A twice, if these are, as I've said to you, the

1 materials that were available to you and your colleagues  
2 as at 17th February 1997 that material would have shown  
3 as calling for an explanation the Rosetta characteristic  
4 clearly in the upper half of the mark.

5 A. As I said before, I recognise the major distortion in  
6 the upper half of the mark but I also recognise that the  
7 mark, particularly due to the fault line, was in more  
8 than one piece and, as far as my comparison was  
9 concerned, I chose, as my colleagues appear to have done  
10 for the court case, they have chosen the lower half,  
11 below the fault line, and I satisfied myself both on  
12 17th and 18th February on that area because I was  
13 satisfied that that was the area that could be clearly  
14 used for the comparison and at that stage that was it.

15 Q. Mr Mackenzie, what that then means is that you chose to  
16 concentrate on the lower part and to ignore, at that  
17 time, the upper part.

18 A. I think I already explained that. My assessment of the  
19 whole mark, there was movement in it, there was  
20 distortion in the top and my target area and my  
21 comparison took place below the fault line which I  
22 recognised from day 1 and across, as far as I could go  
23 on the material that was available to me on these two  
24 dates.

25 Q. If you concentrate on a target area which has some

1 similarities, you must still consider is there a  
2 difference anywhere else on the mark. Correct?

3 A. Okay.

4 Q. And the Rosetta characteristic is a difference?

5 A. In that area, yes.

6 Q. Calling for an explanation?

7 A. Not at that moment in time, no.

8 Q. Why not?

9 A. I think I've now -- this is the third time. I was total  
10 satisfied -- my assessment of this from day 1 was that  
11 the -- and I've explained to you, you've got to take  
12 into cognisance all the features that you see on that  
13 and the fault line for me under a glass, on the  
14 comparator, was so distinct that it allowed me to  
15 determine that there was major disruption above and I  
16 think I've now gone on to prove that there is major  
17 disruption on the upper half, but the lower half allowed  
18 me to give a firm, I think you've used the term,  
19 100 per cent confirmation on the area below the fault  
20 line that the donor of this mark was Shirley McKie.

21 Q. This will be the last question for this afternoon. You  
22 have reached a conclusion of 100 per cent certainty by,  
23 in effect, closing your eyes at this stage to the upper  
24 part of the mark, have you not?

25 A. I'm not closing my eyes. I have taken cognisance of

1 everything that was there and I'm able to explain from  
2 my memory -- and I think my memory's actually very good  
3 compared with many others that we've heard -- but from  
4 my memory I know the area that I worked on, and the  
5 reason for excluding it at that moment in time was that  
6 it was severely disturbed and also I was working with  
7 two rolled impressions that were smudged and one the  
8 first -- well, obviously one rolled impression the first  
9 day and then a clearer, if you tell me this is the one  
10 here, the plain impression and then on the second day  
11 another rolled impression that was smudged and then  
12 another plain impression.

13 So within that narrow window of opportunity from  
14 materials, being asked to give an opinion, I gave my  
15 opinion on what was available that day and obviously,  
16 being given the benefit at a later stage of seeing other  
17 materials, I was actually then able to further confirm,  
18 if you can confirm more than 100 per cent, because I was  
19 100 per cent certain on 17th February and 18th  
20 February 20... sorry, 1997 -- moved on ten years -- 1997  
21 and I say 100 per cent and absolutely no doubts about  
22 it.

23 Q. Mr Mackenzie, I said the last one was the last question  
24 but I will just follow this logically through. On 17th  
25 February 1997, how could you have been 100 per cent

1 certain of the identity of these two marks without a  
2 fully reasoned explanation for the Rosetta  
3 characteristic?

4 A. My fully reasoned explanation, based on my experience,  
5 from examining a mark like that -- which I've said from  
6 the beginning was unnatural, despite what other experts  
7 have said, unnatural in its overall form. In fact,  
8 depending on the orientation that you see of this mark  
9 with various inputs, in fact the one in my book I  
10 suggest you turn it maybe about 45 degrees, and the area  
11 at the top stands out for me like a beacon as being  
12 separate from that area. The red flag, as we now call  
13 it, that fault line was the key to this.

14 Now, I have said, and I'm on record at Tulliallan in  
15 saying, that if this mark was in fact one piece this is  
16 not Shirley McKie's print. But from day 1 I'm totally  
17 satisfied that the fault line here was the key feature  
18 and that's what has I'll probably use the word irked me  
19 somewhat that other people who may or may not have  
20 seen -- I don't know what material they have seen but  
21 they have come to the judgments not taking cognisance of  
22 this fault line. I can only speak for myself. I took  
23 cognisance of the fault line there from my experience,  
24 from the overall assessment of the whole mark, because I  
25 was looking at everything that was there.

1 I take your point the Rosetta characteristic was  
2 there, but the level of detail available to me in the  
3 lower half of that mark on 17th and 18th February 1997  
4 led me to my conclusions which, after all this time and  
5 with the benefit of looking at other material, I know I  
6 came to a correct decision at that time 100 per cent.

7 THE CHAIRMAN: I think we should stop now and we will meet  
8 again at 10.00 tomorrow, please.

9 **(4.0 7pm)**

10 **(Adjourned until 10.00 am the following morning)**

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