

1

Tuesday, 22nd September 2009

2 (Afternoon session)

3 (1.45 pm)

4 PAT ALEXANDER WERTHEIM (continued)

5 THE CHAIRMAN: I assume the problem is sorted out.

6 MR MOYNIHAN: Mr Wertheim, we were looking just before lunch

7 at your original notes FI0118 and we were on page 31, if

8 we could just resume there.

9 What I had been asking you about was a feature which

10 you have drawn as point number 2 and I am now following

11 it through into its court production number. Court

12 production 189 is, indeed, for my comparative exercise,

13 it is point number 4. On page 31 it is therefore the

14 second one down, point number 4.

15 We see you have indeed noted what I have just

16 explained, that it ties back to your point 2 previously.

17 Do you see that?

18 A. Yes.

19 Q. On this occasion what you write is:

20 "Ridge ending below ridge, ridge ending above

21 ridge."

22 So you have carried forward that notation of a

23 slight variation. On this occasion your evaluation is

24 "within tolerance".

25 Can you explain why it was "within tolerance" on

1           this occasion?

2       A.   Possibly because it was a different day, Mr Moynihan.

3           The reason I take notes is to provide transparency.

4           I want you to be able to see through everything that I

5           do and to understand what I do. I don't know if you use

6           transparency here. The word has been used a great deal

7           in the US.

8       THE CHAIRMAN:   Same here.

9       A.   One interpretation, I might look at this point and say,

10       okay, that's within tolerance. On another occasion I

11       might look at it and say, no, I really don't like that.

12       A conclusion is not based on one little issue alone like

13       this; it's based on the overall picture.

14       I've tried to be completely honest and completely

15       transparent and I've no doubt that you will find little

16       discrepancies like this throughout my notes. It's not

17       an attempt to be deceptive, it's an attempt to let you

18       inside my brain during the whole process so that you can

19       see what I was thinking at that moment. So, yes, it's a

20       discrepancy with what I said at another point but I

21       would argue that it's not a serious discrepancy.

22       MR MOYNIHAN:   I think we will have two themes running, if I

23       just track this particular point through, two particular

24       themes running.

25       The first one is transparency. The fact is I can

1           only ask you about this because your notes exist. The  
2           second one, I do want to follow through the within  
3           tolerance on point number 4.

4                     If I tell you -- and we can look at it if you  
5           wish -- that at the criminal trial point number 4 you  
6           accepted in your evidence as being within tolerance and,  
7           therefore, not a point of difference between Ms McKie  
8           and Y7. Would that coincide with your recollection or  
9           would you prefer to see it?

10    A.   Yes, that would coincide with my recollection. As I  
11       recall, off the top of my head, as I recall, at  
12       Ms McKie's trial I accepted a target group of five  
13       points as being within tolerance and I did that because  
14       you have to have a starting point somewhere and I said,  
15       okay, I will just accept that the target group matches  
16       and now let's move outward from the target group and see  
17       what we can find rather than argue each single point  
18       alone.

19                     You have to remember that at Ms McKie's trial, as an  
20       expert witness, I had one objective and that was to  
21       prove to the jury that Y7 was not her fingerprint. For  
22       purposes of that objective, I chose to concede those  
23       five points and let's move on from there rather than  
24       argue each point individually and separately.

25    Q.   I have looked at your evidence and you may want to just

1 take a note. From my examination of your evidence, the  
2 points that you conceded within tolerance as you said  
3 were five, were on my numbering, this is the SCRO  
4 numbering: 3, 4, 5, 6 and 9, the five points.

5 A. As I recall, for clarification, I believe there is an  
6 image in the Inquiry's database of my charts from that  
7 trial that have those points clearly marked on that  
8 chart.

9 Q. We will come back to that just in a second.

10 The points are 3, 4, 5, 6 and 9. On my  
11 understanding of your chart for this Inquiry, your  
12 differences, you are, however, today looking at those  
13 areas again and suggesting points of difference in each  
14 of those -- sorry, one of the points was your area  
15 number 1 in your charting, SCRO point number 3. I  
16 understand that you accept that your area number 1 -- I  
17 will bring it up -- in your charts it is FI0130 and it  
18 will be if we just proceed through --

19 THE CHAIRMAN: Is it 7?

20 A. There.

21 MR MOYNIHAN: Stop. It is page 17. At the bottom you have  
22 area 1 where you are accepting that there is a feature  
23 within tolerance, yes.

24 A. Well, the statement I make there is these two  
25 bifurcations could be said to be within tolerance.

1           There are some subtle differences in the shape. The  
2           drawing that I produced was within my best ability as a  
3           poor artist to try to produce an accurate image and the  
4           point that I'm trying to reflect in those drawings is  
5           that in Y7 the bifurcation is more or less symmetrical,  
6           like a tuning fork pointing downwards. But in the inked  
7           print the bifurcation is not symmetrical but is slightly  
8           lop-sided. In other words, in Y7 the ridge coming down  
9           before the bifurcation splits evenly to each side;  
10          whereas in the inked print the ridge coming down from  
11          the top continues more or less straight on the left-hand  
12          branch of the bifurcation and the right-hand branch  
13          angles out.

14                 So at some point in a comparison like this you have  
15          to say, okay, right, I'm going to accept this one point  
16          as a starting point. In order to do that I've got to  
17          say this one point matches. In Shirley Ms McKie's trial  
18          the goals or the objectives of that trial were slightly  
19          different to the objectives of this Inquiry, at least in  
20          my view, and therefore for purposes of Shirley McKie's  
21          trial I said, yes, right, I'll accept five points as a  
22          target group and I will concede those five points are  
23          within tolerance and let's go from there.

24                 My view or my impression is this Inquiry is intended  
25          to go into much more detail than just whether it matches

1 and, therefore, I've gone into much more detail here. I  
2 have to accept that those points are in tolerance in  
3 order to begin somewhere. If I can't accept those two  
4 points are within tolerance, then I can't even start a  
5 comparison there.

6 Q. What I was wanting to do just in looking at this was to  
7 explore with you what you have just said. In the  
8 criminal trial you were prepared to accept, for sake of  
9 argument, five points as being in sequence and  
10 agreement?

11 A. Exactly.

12 Q. For the purposes of this Inquiry, so far as I can  
13 detect, of those five, only one, your area 1, for me it  
14 is number 3, only one of those five are you prepared to  
15 concede for sake of argument. The other four in your  
16 work today you are disputing?

17 A. That is correct.

18 Q. It is the different mindset between the two processes  
19 that I myself am having difficulty seeing.

20 What is the difference that makes you today question  
21 four of those five where, at the criminal trial, where  
22 after all Ms McKie's liberty was at stake, you were  
23 prepared to concede four of them?

24 A. Because at the criminal trial the question was: was Y7  
25 made by Shirley McKie and the answer was no. I

1 sacrificed nothing by saying, okay, let's take the  
2 target group and concede that and move out from there.  
3 The purpose of this Inquiry, as I understand it, is not  
4 just to determine whether Y7 was made by Shirley McKie  
5 but to further determine what happened and why it  
6 happened and that's a much deeper objective to the  
7 Inquiry than there was to Shirley Ms McKie's trial.

8 Therefore this Inquiry is prepared to go much deeper  
9 into the evidence, to spend vastly more time and effort  
10 into determining what happened than was done at the  
11 trial.

12 At the trial, I testified for a day and a half and I  
13 believe Dave Grieve testified for half a day. So at  
14 Shirley Ms McKie's trial a grand total of two days was  
15 spent examining the fingerprint. I believe the amount  
16 of time set aside by this Inquiry demands a more  
17 thorough examination of the fingerprint than was  
18 presented at Shirley Ms McKie's trial.

19 Q. Can I put to you an alternative scenario which fits in  
20 with some of the earlier questions and, again,  
21 reinforces the value of your own contemporaneous notes,  
22 as you say, for verification and transparency.

23 Plainly Y7 has for ten years now been very  
24 controversial as a mark. There might be the suspicion  
25 of confirmatory bias in the two opposing camps and now

1 we see an individual, on one wing of the argument,  
2 happens to be contradictor, brings forward four points  
3 as disputes where previously he had been prepared to  
4 concede those four points and one explanation might be  
5 confirmatory bias. You looking at this now see more  
6 points in dispute than you had perhaps seen at the time  
7 when it was less confrontational for you.

8 What is your comment on that?

9 A. Well, I can certainly understand that and I would not  
10 deny that such a bias may exist. I would offer in my  
11 defence that I have tried scrupulously to avoid that  
12 bias and I believe my presentation with regards to Y7 in  
13 the phase 1 exercises demonstrated the differences that  
14 show the points are not in tolerance. This one  
15 accepted.

16 But going on from here I believe I have documented  
17 with transparency why they don't match, even though at  
18 the trial of Shirley Ms McKie I said, "Okay, I'll  
19 concede those five. Let's go on from there".

20 I'm saying here I'm not conceding them and I can  
21 understand why you would say, "You testified this way,  
22 Mr Wertheim, and now ten years later you are testifying  
23 here", and if I can't explain to you the differences in  
24 my perception of the trial versus my perception of the  
25 Inquiry and the objectives of the trial versus the

1 objectives of the Inquiry, then obviously you're free  
2 not to accept my evidence but it's my contention that  
3 the points are different and I've tried here in much  
4 more detail than I ever went into at Shirley Ms McKie's  
5 trial to demonstrate why those five points don't match.

6 Q. We will come --

7 THE CHAIRMAN: Can I just ask while we are on the point, if  
8 you go back to your original notes on three points where  
9 you say were within tolerance, does that not suggest  
10 that it would be open to an expert to take the view that  
11 they were within tolerance even though you now no longer  
12 view all three of them as being within tolerance? In  
13 other words, if it was a legitimate view at the time  
14 that you took it, it would be legitimate for another  
15 expert to hold that view at present.

16 A. That's correct and very perceptive, yes, because as we  
17 talked about this morning there is a degree of  
18 subjectivity and in that regard I'm not the same  
19 examiner I was ten years ago. I've got ten years  
20 of additional experience under my belt.

21 You are entirely correct. My interpretation is  
22 based on my eye, my training, my experience and to the  
23 degree I can avoid being affected by the bias that you  
24 suggest, I can't deny that that bias may be present.

25 MR MOYNIHAN: If we can just follow this through because

1 point 4, I think, at least in my head, I have a mental  
2 picture of. If we turn on FI0130 to the next page,  
3 page 18, and by coincidence I suspect point number 2 in  
4 your numbering reverts to point number 2. It's always  
5 point number 4 for me but in the drawing we see on the  
6 right-hand side this characteristic step-up of two  
7 bifurcations which is what I associate with point 4 and  
8 indeed point 5. Point 4 for me is the lower of the two  
9 bifurcations on the right-hand side. I will try to mark  
10 it.

11 THE CHAIRMAN: Just opposite the 3, figure 3?

12 MR MOYNIHAN: Yes, sir.

13 A. While you're doing that, Mr Moynihan, I might mention  
14 the fact because it has suddenly come into the  
15 conversation that I referred to areas rather than  
16 points. I did so because if I discuss points, then  
17 there is an implication that there is some degree of  
18 matching going on and in the areas I'm trying to avoid  
19 that because they don't match and, therefore, instead of  
20 saying point 1 matches point 1 but point 2 doesn't match  
21 point 2 and point 3 doesn't match point 3, I've tried to  
22 confine my discussion to areas of the print that  
23 correspond. So if we start at area 1, which I believe  
24 you said was the point 3 on the SCRO chart ...

25 Q. Yes.

1 A. Then if I start with that as area 1 and move to area 2  
2 then the area of the print in Y7 is the same area in  
3 relation to the first point as the corresponding area in  
4 the inked print. Was that stated too confusingly.

5 Q. No, that's okay.

6 A. I'm trying to confine my discussion to what features are  
7 in this exact area of the print. Here are the features  
8 I see in Y7 and here are the features I see in that area  
9 in the inked print and as points they don't correspond;  
10 so I prefer not to use the word "points". That's the  
11 reason I chose to use the word "area".

12 Q. Just so that we can discuss this, I put on two arrows.  
13 The lower of the two cuts through the number 3 I will be  
14 referring to ultimately as SCRO point 4. The  
15 upper arrow that cuts through the number 2 I am going to  
16 refer to as SCRO point 5.

17 To tie those in to your own contemporaneous notes,  
18 which is on the other side, I have to make a slight  
19 adjustment. The lower of the 2, the through what is  
20 number 3 is 4 and always was 4 in production 189. So it  
21 is the one we have been talking about so far.

22 The upper one for me today is SCRO point 5. It was  
23 in the chart 189 number 14 and that will explain why in  
24 your notes number 4 and immediately after it comes  
25 number 14. The two features which I have highlighted in

1 your notes are points 4 and 14 in your original  
2 manuscript notes and we have discussed number 4, the  
3 original marked number 2, and if you see it of number 14  
4 a ridge ending in one, a bifurcation in the other and  
5 you have written under it "see 3 above, must join ridge  
6 below", and you write "within tolerance".

7 So the two points, 4 and 14, you describe as being  
8 within tolerance in your manuscript notes. Are you  
9 following me?

10 A. Okay.

11 Q. With that in mind now let us look at what you have  
12 written in your notes for the Inquiry dealing with area  
13 3. You say:

14 "A blue green circle encloses an area with one  
15 feature. In the inked print the feature in area 3 is  
16 clearly a downward opening bifurcation in which the  
17 ridge path deviation is minimal on both sides of the  
18 bifurcation. In Y7 area 3 encloses either a ridge  
19 ending or bifurcation. Based on the factors of  
20 distortion, neither interpretation would be inherently  
21 wrong. But connecting the ridge ending to either the  
22 ridge on the right or the ridge on the left creates an  
23 irreconcilable difference in the ridge count between the  
24 bifurcations ridge endings from area 2 to this  
25 bifurcation ridge ending in area 3. This difference in

1 ridge count is completely out of tolerance."

2 It would seem that what originally in your  
3 manuscript notes you had been prepared to accept was  
4 "within tolerance" now in these notes you are saying is  
5 out of tolerance for a reason.

6 A. Let me clarify one point because this occurred to me as  
7 you were reading through that and this goes back to the  
8 reason I prefer to use the word "area" here.

9 In my notes I was referring to the specific point in  
10 isolation as being within tolerance compared to that  
11 specific point in chart 189. In other words, in chart  
12 189 if I looked at point number 4 that was marked in Y7  
13 and point number 4 that was marked in Shirley Ms McKie's  
14 left thumbprint, if I looked at that point in isolation  
15 in production 189 it was within tolerance.

16 What I'm saying in my phase 1 exercise is that if I  
17 take that area and look at that cluster of points that  
18 appear in that area, they are out of tolerance. So I am  
19 sorry for the misunderstanding there. I don't deny that  
20 my interpretation may change a wee bit over ten years  
21 but it occurred to me while you were reading that, oh,  
22 that's what I've done here.

23 In my notes I'm looking at the single point in  
24 isolation in production 189 and commenting on  
25 specifically the point that was charted. In my phase 1

1 explanation here I'm looking at the area and I'm looking  
2 at each point in relation to the other points that are  
3 around it and those are out of tolerance.

4 Q. What I want to do is get to the end of your notes and  
5 then we will actually go to look at Y7. If we could  
6 save the right-hand image (that is FI013.018) as an  
7 image for today, please?

8 MISS BAHRAMI: That is saved as image FI2209.06.

9 MR MOYNIHAN: If I can take you to the end of your notes,  
10 for me that is FI0118.39. That is page 16 of your notes  
11 about the smear line.

12 A. Okay.

13 Q. If I understand it correctly, in this particular section  
14 of your notes what you are now doing is you are trying  
15 to work out if there has been movement in the mark to  
16 account for the smear line. Would that be correct?

17 A. "Analysis by following the ridges from side to side  
18 through the latent with particular attention to the lack  
19 of offset ridges and continuous Level 3 detail indicates  
20 no smear line or slippage line exists. Detail and ridge  
21 features are dependable in their relationship from  
22 side-to-side across the print and features noted in  
23 initial analysis do, in fact, occur in that zone."

24 I was looking at it primarily as a smear; that is a  
25 brush mark or a smudge, something dragged across the

1 surface after the latent print was developed and wiped  
2 away the powder in that stretch.

3 I included the term "slippage line" in here to rule  
4 that out as well, but the mark itself is obviously an  
5 artefact of damage that was introduced after the surface  
6 was powdered.

7 Q. I think my only reason for ending up at page 16 was to  
8 say that in your notes we see ultimately you coming to  
9 consider this question about whether there was a single  
10 touch or a multiple touch and doing it relative to the  
11 smear line.

12 A. Oh yes. I was looking at a smear line -- if you have  
13 what we refer to as a double tap, the finger touches  
14 twice during one continuous active touch but the finger  
15 touches twice, then we would call it a double tap. If  
16 the finger goes down and then slips slightly, the  
17 problem is that in either a double tap or a smudge you  
18 will virtually never have a situation in which all of  
19 the ridges line up perfectly. Rather, if you have a  
20 double tap or if you have a smudge the ridges will be  
21 offset or they will come in at different angles or there  
22 will be overlap in the ridges, as I'm demonstrating with  
23 my hands (**indicated**).

24 The term that Ashbaugh uses to define the technique  
25 of analysis to determine that is run the ridges; in

1 other words, you trace each ridge all the way from one  
2 side of the print all the way to the other side of the  
3 print and you're looking for any sign of offsetting or  
4 angularity or criss-crossing. In the absence of any of  
5 those signs when you find at all of the ridges run  
6 smoothly uninterrupted from side to side, you can reach  
7 the conclusion that it's a single touch, it's not a  
8 double tap and it's not a smear and there's no smudge  
9 line, there's no fault line, if you will, running  
10 through the print. That is basically the conclusion  
11 that I am annotating in this paragraph.

12 Q. In relation to that particular conclusion, if I bring up  
13 for us DB0172H and we will try page 7. This is a  
14 digital reproduction of what I now refer to defence  
15 production number 2.

16 A. Yes, sir.

17 Q. In fact, we have the original in front of me if anybody  
18 wants to see. This was a set of transparencies that you  
19 prepared for the criminal trial. We just happen to have  
20 here the layer that has the line tracing that you are  
21 referring to.

22 A. Right.

23 Q. The only qualification there we will have to come back  
24 to is that you are unable to run the lines straight  
25 across in the middle section.

1 A. Okay, may I mark this?

2 Q. Yes, please.

3 A. Just to be clear about the area to which we're  
4 referring, we're referring to -- this is the area to  
5 which you're referring?

6 Q. Yes.

7 A. It's my interpretation of this area that this was the  
8 heaviest point of pressure during the touch. In other  
9 words, the direction of touch where it contacted the  
10 flat surface, this was the part -- think of the soccer  
11 ball being mashed against the wall and the first small  
12 area of the soccer ball that touches the wall as you  
13 continue to push undergoes the most pressure and if you  
14 had a light coat, a very, very likely coat of oil on  
15 that soccer ball, when you mash it against the wall the  
16 very centre area's going to smudge out but the outer  
17 area is going to reproduce the fine detail on the soccer  
18 ball more correctly.

19 My interpretation of this area in this mark, Y7, is  
20 that this was the outer most area of the bulb of the  
21 finger that either first or last or perhaps both, first  
22 and last, contacted the surface during the touch and  
23 release. It's possible that there was a slight smudging  
24 in that area on release. You can't follow the ridges  
25 through there but you can clearly see that there are

1 three ridges going in and four ridges going out.  
2 Therefore, you can determine that there must necessarily  
3 be either a bifurcation or a ridge ending somewhere in  
4 that area.

5 I might add that in my testimony at Shirley  
6 Ms McKie's trial, this area was referred to in the  
7 transcripts as "the blob", a name I believe  
8 Donald Findlay assigned to it. I understand the term  
9 "the blob" was used during Shirley Ms McKie's trial with  
10 other witnesses to refer to other areas, but for  
11 purposes of understanding my testimony if you read my  
12 transcript the word "the blob" was consistently used to  
13 refer to this area and you are correct, there is some  
14 smudging there, you can't follow the ridges through that  
15 area.

16 Q. We will come back to this later. I am about to add  
17 without saving because we will just save this as one  
18 picture, I am about to add an arrow to a feature. Can  
19 you see just slightly up to the left and above the  
20 bifurcation?

21 A. The infamous Rosetta point.

22 Q. That is what I was going to ask you. If we save that  
23 image?

24 MISS BAHRAMI: That's saved as FI2209.07.

25 MR MOYNIHAN: If we can then move through page 8 of the

1 transparency, that's DB0172H, it's not the clearest,  
2 Mr Wertheim, but as I understand it at the criminal  
3 trial you gave evidence relative to a number of points  
4 of difference which you circled in green.

5 A. Yes, sir.

6 Q. Of which one, the one that my pencil is poised at just  
7 now, if I mark it, is indeed, as you say, the infamous  
8 Rosetta stone (**sic**).

9 A. That's correct.

10 Q. We will come back to that slightly later. So the whole  
11 topic of running the ridges and that blob in the middle  
12 is relevant to this question of the Rosetta  
13 characteristic that you observed as a point of different  
14 that meant that Y7 could not be Shirley Ms McKie's  
15 fingerprint. Is that correct?

16 A. That's correct.

17 Another difference here I might point out between  
18 the trial and the Inquiry is the fact that at the trial  
19 in proving that Y7 was not made by Shirley Ms McKie I  
20 used an inked print that I took of Shirley McKie which  
21 contained virtually the same area of skin represented as  
22 in Y7. For purposes of the Inquiry in which a  
23 determination is trying to be made of what went wrong,  
24 then we're using the original print that was used during  
25 the original comparison, not the print that I used

1 during my comparison.

2 THE CHAIRMAN: Do you want this one saved?

3 MR MOYNIHAN: Yes, sir.

4 A. I might also point out that for purposes of the trial I  
5 demonstrated that there were four points in Y7 that did  
6 not match anything in the inked print and there were  
7 four points in the inked print that did not match  
8 anything in Y7. In actuality, there are far more  
9 differences than that but for purposes of keeping it  
10 simple and keeping the trial focused in Shirley McKie's  
11 trial I restricted myself to four differences in each of  
12 the two prints.

13 Q. My only reason for looking at this particular image was  
14 by coincidence of the four green circles, the  
15 differences you highlighted here, one has become a  
16 somewhat infamous example of the debate on either  
17 side about whether an explanation can be given for  
18 the Rosetta characteristic or not.

19 A. Yes, sir.

20 MISS BAHRAMI: That image is FI2209.8.

21 MR MOYNIHAN: Take that down. Before I begin with Y7 I just  
22 wanted to ask you some questions about XF, not something  
23 we have discussed so far.

24 XF was identified by the Scottish Criminal Record  
25 Office as a fingerprint of David Asbury who was the

1 accused and do I understand it you agree that the  
2 identification of XF as David Asbury's fingerprint is  
3 correct?

4 A. Yes, it is.

5 Q. You did raise some questions about the authenticity of  
6 the fingerprint, questions that you raised, and you will  
7 be aware that you are one of the few people who have  
8 actually seen a copy of the full report by Dr Bleay?

9 A. I was shown a copy of that report. I did not read it in  
10 detail.

11 Q. Have you even now not read it in detail at all?

12 A. I've read the section related to XF.

13 Q. I can be relatively brief in relation to this. As I  
14 understand it, Dr Bleay, a scientist from the Home  
15 Office who will give evidence in relation to his  
16 opinion, has carried out some work, examined the mark in  
17 a number of ways and has reached the conclusion it's a  
18 naturally deposited fingerprint and he has answered by  
19 implication some of the questions you yourself raised.  
20 In the light of what we have read in Dr Bleay's report,  
21 are you happy that your questions have been answered  
22 about the authenticity of XF.

23 A. Oh, yes. I mean, accept Dr Bleay's report. I had the  
24 questions because I was never allowed to examine the  
25 original gift tag. I examined a photograph of a gift

1 tag. Based on my research from 1992, 93 and 94 into  
2 fabrication of fingerprint evidence, in the photograph  
3 there were some issues raised which I felt needed to be  
4 answered and if Dr Bleay's answered those objections or  
5 my questions -- I shouldn't say objections, my  
6 questions -- then I am perfectly happy to accept his  
7 report and accept his conclusions.

8 Q. I will give you a chance overnight just to read it more  
9 carefully and if you have any doubts about it then you  
10 can feel free to raise those doubts with us.

11 A. Certainly. Without examining XF myself, I feel like I  
12 can't endorse his report and I certainly wouldn't  
13 testify to the merit of his report but I'm willing to  
14 accept it.

15 Q. I just want to ask you some questions about the history  
16 and one of the pieces of information that has since been  
17 supplied by Mr Dalyell. I understand from Mr Dalyell  
18 that this is a photocopy taken from a civil process of  
19 the gift tag as photographed by you.

20 A. I would say this is a gift tag photographed by me.

21 Q. If I understand the history of this, you prepared a  
22 report primarily in relation to Q12 in which you also  
23 touched on XF and you said you had not seen XF. Is that  
24 correct?

25 A. That's correct.

1 Q. That the then defence solicitors for Mr Asbury, a firm  
2 in Edinburgh called More & Company, wrote to the  
3 Procurator Fiscal to ask that you have access to the  
4 gift tag. Are you aware of that?

5 A. They asked that I have access to all of the related  
6 fingerprint evidence in that case.

7 Q. Did you then go to the Procurator Fiscal's Office?

8 A. Three times.

9 Q. The particular photograph that we see brought up just  
10 now, is that a photograph you yourself took or a  
11 photocopy of a photograph you took?

12 A. I believe it is, yes.

13 Q. Was that the gift tag that you were shown by the  
14 Procurator Fiscal?

15 A. Yes. When I attended the Procurator Fiscal's Office in  
16 Kilmarnock, the first visit I was denied entry and  
17 access, the second visit I was given very limited access  
18 and the third visit I was given what I was told was  
19 everything and there were boxes of evidence, there were  
20 piles of documents, there was a tremendous amount of  
21 material to go through.

22 As you mentioned, Mr Moynihan, my primary concern  
23 was Q12. I wanted to look at the tin, I wanted to  
24 examine everything surrounding Q12. I was only  
25 secondarily interested in XF at that point because it

1 was my understanding from Mr Asbury's solicitors that  
2 Mr Asbury readily admitted being in Miss Ross's house  
3 some days prior to her murder and therefore, at that  
4 point, XF was relatively insignificant in my mind.  
5 Therefore, as I was going through the evidence I saw the  
6 gift tag and I thought to myself, "Yes, right, that's  
7 the gift tag. Let me take a picture of that", click,  
8 and I moved on. I was focused on XF.

9 It wasn't until some time later that I realised the  
10 gift tag that I had photographed was not the gift tag  
11 that appeared in the photograph of XF which I had  
12 previously been provided. So I have to admit  
13 carelessness on my part during that examination at the  
14 PF's office in not seeing that at the time. It's just  
15 that I wasn't focused on it and I missed it.

16 Q. I will bring up a copy of XF, the gift tag, in a second  
17 but before I do just so everyone makes a mental note --

18 A. Mr Moynihan, let me interrupt you there and add that I  
19 went through every single item and sheet of paper at the  
20 PF's office in Kilmarnock and this was the only gift tag  
21 that was in that collection of evidence.

22 Q. If we look at the contrast with what I am about to pick  
23 up. First of all, people should be aware what you have  
24 photographed is a label with a red ribbon, the inner  
25 picture with the stars is blue and the outer margin has

1 a red motif against gold. That is red, blue, red and,  
2 if I bring up one picture, ST0001.3, this is the gift  
3 tag in Marion Ross's house. We see the ribbon is white  
4 not red, the inner area is red not blue and the motif  
5 around the outside seems to be blue not red.

6 A. Yes, sir.

7 Q. So for some reason it would seem that the gift tag on  
8 which XF was located was not the one that you  
9 photographed?

10 A. Oh, no, that's correct and I might point out too that  
11 the only photograph I had of XF was a black and white  
12 photograph which I believed to be a colour reversal so  
13 that all of the black components of the photograph were  
14 white and all the white components were black. So my  
15 recollection of XF at the time I was in the PF's office  
16 was based on that black and white colour reversed  
17 photograph; therefore, colour differences were  
18 meaningless to me. I'd never seen a colour photograph  
19 of XF.

20 Q. The final piece of this particular jigsaw, Mr Wertheim,  
21 is to look at your own contemporaneous notes. In this  
22 instance CO1734.4, not the best of photocopies to begin  
23 with but, as I understand it, this is a note by you of  
24 an attendance at the PF's, the Procurator Fiscal's,  
25 Office in Kilmarnock on 25th April 2000.

1 Do you see that?

2 A. Yes, sir.

3 Q. If I read your writing correctly, point number 1 you are

4 shown a plastic bag with a label and it contained

5 wrapping paper, a box of three bath soaps and a gift tag

6 and then you give the serial number with XF. Do you see

7 that?

8 A. Oh, yes, I do.

9 Q. Can you explain that because that, on a first reading,

10 would suggest that what you have actually seen is the

11 gift tag bearing that serial number?

12 A. So it would. My recollection must be defective or my

13 notes are defective -- one. Somewhere along the way

14 I've lost my original notes. I don't know if I gave my

15 original notes in this case to Mr Asbury's original

16 solicitor or if -- I don't believe I gave my notes to

17 Digby Brown but at the bottom line I don't have my

18 original notes on this case.

19 Q. This is a poor photocopy.

20 A. This is the first time I've seen them in eight or nine

21 years.

22 Q. What I would like to do is to take you to the last

23 quarter, just below where the black punch-hole is.

24 Number 1, corresponding with the plastic bag. You will

25 need to read some of this for me. It seems to say:

1 "Removed gift tag from bag", there is then a serial  
2 number "XF, appears to have been CA fumed"?

3 A. Yes, sir.

4 Q. What does "CA fumed" mean?

5 A. CA is cyanoacrylate ester. Superglue is the common  
6 term. By evaporating superglue in a sealed chamber the  
7 superglue fumes respond with the residue and harden the  
8 fingerprint and turn it white, which allows for a  
9 subsequent dye staining and photography.

10 Q. I can actually get my tongue round superglue a bit  
11 earlier. If I tell you Dr Bleay says from his  
12 examination of XF it was indeed superglue. You then go  
13 on to say:

14 "Fume on varnished side". Is that correct?

15 A. "It would be processed in liquid chemistry on reverse.  
16 Mark in CA on surface leads to same as seen in photos  
17 and ..."

18 Q. Client? Or chart?

19 A. Yes. Oh, "same as in photos and chart", yes. Okay. My  
20 sincerest apologies to the Inquiry because I need to  
21 retract my comments then regarding XF. I had lost any  
22 independent recollection of this and did not retain my  
23 original notes and I've got to simply say, "Hey, I was  
24 wrong on this one".

25 Q. After the algebraic reference, the three dots for

1           therefore, the conclusion is "legit [legitimate] CA  
2           print"?

3    A.    Yes. My apologies to the Inquiry.

4    Q.    Apart from anything else, that coincides directly with  
5           Dr Bleay's understanding that it was a superglue process  
6           applied to develop the print, the gift tag has itself  
7           been chemically treated with some form of yellow and we  
8           could look and check that XF, the fingerprint, has the  
9           code that you have noted there. You now accept you must  
10          have seen the gift tag?

11   A.    I must have seen the gift tag and simply forgotten about  
12          it --

13   THE CHAIRMAN:   It is a long time ago.

14   A.    Honestly, sir, I was focussing on Q12, not on the gift  
15          tag, until a later date when I realised that that other  
16          photo -- obviously I photographed this. I mean, my  
17          notes clearly reflected I did, so I've got to -- and I  
18          recognise my handwriting. Therefore, I would  
19          speculate that the photographs and all of the related  
20          material that I have related to XF probably resides in  
21          the files of Mr Asbury's initial solicitor but I have no  
22          knowledge of where it is.

23   MR MOYNIHAN:   I can certainly tell you as far as I  
24          understand, go back to page 1 of the CO1734, there is a  
25          characteristic covering note that enables me to say the

1 source of this particular copy of your notes -- it will  
2 not mean anything to you, Mr Wertheim, it means  
3 something to me -- this has come from a police inquiry.  
4 You statement was taken from you and it says on 24th  
5 August 2000 a police inquiry, that we call Operation  
6 Alba, to which you must have supplied a copy of your  
7 notes.

8 A. That would have been the Mackay Robertson Inquiry and  
9 I've got to say that my collection of evidence in this  
10 case is terrible because, with all of the inquiries and  
11 all of the various solicitors and attorneys, each of  
12 them has walked away from the meeting with some of my  
13 original material.

14 THE CHAIRMAN: They like gathering up material. It is  
15 endemic, I think.

16 A. If I had foreseen the extent to which this was going to  
17 carry on for over a decade, I think I would have kept  
18 better track of things.

19 MR MOYNIHAN: What I was about to do is leave XF and turn to  
20 Y7. I do appreciate it is a little early but we may  
21 want to --

22 THE CHAIRMAN: It sounds very early but we take a short  
23 break now because the catering facilities close at 3.00.  
24 I should say now that, subject to you being willing, I  
25 would propose today to continue until 4.30 in the hope

1 that we can get through more of the evidence because we  
2 realise that time, through no fault of yours, is limited  
3 that you are available.

4 A. Sir, I am willing to stay until midnight. I did not  
5 come all the way from America to leave here at 4.00 and  
6 go to the pub. I came to answer the questions and I am  
7 willing to stay as long as necessary.

8 THE CHAIRMAN: Unless it affects anybody seriously, we will  
9 go on until 4.30 today and we will sit again at 2.55.

10 **(2.45 pm)**

11 **(A short break)**

12 **(2.55 pm)**

13 MR MOYNIHAN: Mr Wertheim, I am now about to turn to Y7.

14 What I have brought up on the screen are some images of  
15 Y7. There are four for a reason that will become  
16 apparent in a moment.

17 First of all, I have on the top twice over the same  
18 set of images. This is the SCRO charting which, for the  
19 record, is FI0167A and at the bottom your charting  
20 FI0164A.

21 So that my colleagues can follow, we have had all  
22 the images recharted to try to get the best resolution  
23 possible and it is the A charts. I will have to give  
24 out some further references. It is the A charts that  
25 are the correct references. So the opening statement

1 was reissued yesterday with a table 2C, I believe, with  
2 some updated references. It is still the same code  
3 number but the best images I understand are now those  
4 with an A suffix at the end. We will see how we work  
5 with them.

6 What I want to do, Mr Wertheim, as I said to you  
7 yesterday, is I want to work through the points in  
8 relation to Y7, as I said in my opening statement this  
9 morning, primarily using the SCRO numberings for  
10 consistency across all of the witnesses but we will  
11 bring up your own chartings so that you know the  
12 particular point that you were thinking of when I then  
13 relate it to the SCRO numbering. With any luck the fact  
14 I have four will enable me to highlight what I am  
15 looking for.

16 What I want to begin with is a point numbered 1 on  
17 the SCRO charting. Let us start at the top.

18 A. I'm seeing a cultural difference here and that is in  
19 America we always put the numbers outside the box.

20 Q. First of all, I think if we could -- since I'm not as  
21 good at this -- if we take away the top right and bottom  
22 left images just for the moment ...

23 It is 164A now to be on the right-hand side.  
24 Beginning with SCRO point number 1, my cursor is now  
25 just on the left-hand side, I cannot see -- but please

1 correct me if I am wrong -- that that coincides with any  
2 of your charted differences?

3 A. I am sorry but on this screen I cannot see any point in  
4 that image that --

5 Q. I will enlarge it.

6 A. Can we just cut out the point, just a very small area,  
7 right there.

8 Q. What is being suggested -- and this is perhaps proof of  
9 something else that we were talking about earlier on  
10 today -- if I give you the original, that is the  
11 photograph of both your own chart and the SCRO chart,  
12 that may help.

13 A. I believe we were both using the same photograph that is  
14 to say a photograph made at the same exposure from the  
15 same negative. Therefore, the images should be as close  
16 to equivalent as humanly possible, my point being that  
17 what's in the SCRO image should be the same as in my  
18 image.

19 Q. Sorry, all I am saying is the area in which their  
20 charted point number 1 appears is not an area that you  
21 have marked up as containing a point of difference.

22 A. No, no, I did not mark all of the differences I saw. I  
23 chose 12 areas to mark. I ignored this. I can't tell  
24 you why, except that I was focussing on the other areas.

25 Q. Point number 1 in the SCRO charting, if I therefore take

1 your 164A down just now, I will just concentrate on the  
2 SCRO charting on the screen. I will concentrate on the  
3 SCRO charting. This is now the SCRO charting and I can  
4 enlarge the image. It is behind you or it will be in a  
5 second behind you on an easel --

6 A. May I make a suggestion, please?

7 Q. Yes.

8 A. Rather than enlarge the entire image with the numbers,  
9 if I'm going to do an analysis and use the tools to draw  
10 I might ask that you just go ahead and cut out the  
11 numbers because we can still determine which number  
12 we're talking to and it will give us a larger image on  
13 the screen.

14 Q. We can zoom in a little but for the moment I am just  
15 trying to get the location of point number 1.

16 Just in this level of detail, because there is  
17 already a degree of magnification, if you were carrying  
18 out your initial analysis -- this is the A of ACE-V --  
19 what would your attitude be to the point that my cursor  
20 is hovering over now where point number 1 is identified?

21 A. Frankly, I don't see a point in there. I would  
22 certainly not choose that as a target or a beginning  
23 point. I would begin with an obvious point. I mean, if  
24 we want to focus on this point what I would like to do  
25 with your permission is cut out that area and do a

1            little quick analysis along the ridges.

2        Q.    Please do. If you cut it out -- well, first of all, if  
3            we just look at the SCRO original. Just double check,  
4            Mr Wertheim, because I'm concerned we might not have the  
5            best quality image. Just double check looking at the  
6            original does not make any difference to you. **(Handed)**

7        A.    I'm looking down the image this way because sometimes,  
8            especially in broken up ridges like this, it's easier to  
9            connect the dots and form a correct ... but this changes  
10           nothing in the way I would have interpreted it from the  
11           screen. So if you will allow me I will cut and mark the  
12           screen.

13                If we are looking at the area marked number  
14            1 ... no, no, that's not what I want, my mistake. This  
15            is what I want. Is it enlarging?

16        Q.    This is a very high resolution so that is too small an  
17            area. If you take a quarter maybe that might help.

18        A.    There we go. Actually here we're too close. Can we  
19            undo that, please, and let me redo it.

20                I know from practising with this software yesterday  
21            that the mouse tends to be jumpy and the smaller the  
22            image that I'm working with the harder it is to trace  
23            the ridges because the mouse wiggles. But at the same  
24            time I've got to be a little farther from the ridges to  
25            connect the dots.

1 I'm going to pick a ridge. Let's pick this ridge  
2 **(indicated)** and it appears to me that this ridge goes up  
3 about here **(indicated)**. I didn't want to do that. Can  
4 we go back to that image or do I have to start over? I  
5 see the line is still there so I'm just going to cut it  
6 out and go back to it.

7 That appears to be one continuous ridge through this  
8 area so let's work another ridge that appears to be a  
9 continuous ridge. **(Indicated)** At this point -- this is  
10 on the very edge of the print which is not a reliable  
11 place to look at a print. What I am going to do here is  
12 put a red circle -- I'm going to put that red circle --  
13 because I'm not sure about this point. It's right on  
14 the edge.

15 Let me come back to this and I'm going to follow  
16 what appears to be this ridge down **(indicated)** and I am  
17 going to follow what appears to be a ridge down through  
18 here.

19 Now for one more to follow this ridge up here  
20 **(indicated)**. Now, the clear point that shows up here --  
21 my apologies again, this is new software to me and it's  
22 going to take me a few tries -- this is a clear point.  
23 The way I've interpreted the ridges I would agree that  
24 there is an ending ridge or a bifurcation in this  
25 approximate location **(indicated)**.

1                    There is a lack of Level 3 detail, a lack of clarity  
2                    and even the Level 2 detail here would be subject to  
3                    interpretation. However, the Level 2 detail being  
4                    subject to interpretation meaning is this a bifurcation  
5                    or is this a ridge ending, we can't tell. The image is  
6                    not that clear, not through the fault of any  
7                    reproduction method but through the fact that the  
8                    Y7 itself is not that clear.

9                    Now, let me have the --

10          Q.    If you give me second, please, just for my purposes.  
11                    When you say the image is not that clear, there seems to  
12                    be a ridge ending or a bifurcation in that area.

13                    Is that in the area of the green circle?

14          A.    Yes, it is and that would be --

15          Q.    If you give me just a second because what I want to do  
16                    before we lose this with so much detail, if we could  
17                    save this one, please, just now.

18          MISS BAHRAMI:    It's saved as FI2209.09.

19          MR MOYNIHAN:    I can tell you by looking at my chart -- I  
20                    think everyone has paper versions so they may be able to  
21                    follow. The two lines, one entering the green circle  
22                    and the other to the right of the green circle, would  
23                    appear to be SCRO points 15 and 16. Is that correct?

24          A.    That's correct.

25          Q.    In the area of 15 and 16 you see something but you are

1 not clear whether it's a ridge ending or a bifurcation?

2 A. Yes, sir, that is correct. There is either a very clear  
3 ridge ending or a very clear ... no, let me back up.  
4 There is either a certain ridge ending or a certain  
5 bifurcation at that point. I can't tell from this  
6 which.

7 Would you like me to address this issue further  
8 while we're here?

9 Q. We will come to that just in a second because it may be  
10 that I go out of my order of going round the clock. It  
11 is quite handy to deal with this just now. First of  
12 all, if you just deal with the area that you marked with  
13 the red circle, which for me is point number 1.

14 A. Okay. Then let me finish my analysis here and that is I  
15 see some ambiguity in this point and I am going to --  
16 where the green line ends within that red circle, I'm  
17 going to continue with a red or with a pair of red  
18 lines.

19 This could be a bifurcation coming down as I've  
20 indicated here (**indicated**) but, because it's right on  
21 the edge of the print -- and I've drawn the lower part  
22 of the bifurcation, the forking part of the bifurcation  
23 in red for the record -- and, therefore, if you put it  
24 to me that this is a bifurcation that matches the  
25 bifurcation marked number 1 on Shirley McKie's inked

1 print I'll say that I don't disagree with that point but  
2 I don't feel that it's reliable because it's on the very  
3 edge of the print and I can't be sure that that's a true  
4 bifurcation and let my show you why.

5 Q. If we stop there and, first of all, let us save this  
6 image.

7 MISS BAHRAMI: That's saved as FI2209.10.

8 MR MOYNIHAN: Can I just do for others what you are able to  
9 do by looking at the original image which is to your  
10 side. If I could bring up, please, from FI0167A, on  
11 this occasion, if I highlight Shirley McKie's print, now  
12 it will be possible to see point number 1 --

13 A. Yes.

14 Q. -- which I am now going to highlight by an arrow  
15 **(indicated)**. If I understand it correctly, what SCRO  
16 are pointing to as point number 1 is a bifurcation in  
17 Shirley McKie. Therefore, they would suggest that the  
18 bifurcation to be seen in Shirley McKie matches what you  
19 yourself have drawn on Y7. That is what you are going  
20 to go on to comment on and I just wanted everyone to  
21 know what point number 1 was on Shirley McKie that you  
22 were able to see yourself from that print.

23 What is your comment on that as a matching feature?

24 A. I'm not comfortable with it. I won't dispute it. I  
25 believe if -- may I add a mark on here?

1 Q. Please do.

2 A. I'm going to use, if I can find what happened to my  
3 arrow, a bright yellow line to indicate what appears to  
4 me to be some slippage that is disturbing the ridge flow  
5 and it's possible that while taking the rolled -- no,  
6 this is not the rolled; this is a plain impression.  
7 It's possible by taking this impression just the very  
8 edge of the skin slipped either when making contact with  
9 the paper or when releasing from the paper, but I don't  
10 like what I see along that yellow line because the  
11 ridges don't appear to flow as even and continuously as  
12 they do in the rest of the print.

13 My point is that I am not entirely comfortable with  
14 using this point on either the inked impression or the  
15 latent impression Y7.

16 Q. Can you just explain to me why you are not comfortable  
17 using either of these points?

18 A. Points on the very edge of a print, unless exceedingly  
19 clear, may not be reliable and I don't see either of  
20 these as being clear enough to be reliable and may I go  
21 back over to the Y7 image and add one more line in a  
22 different colour?

23 Q. First of all, we had better just save the fingerprint on  
24 the right?

25 A. All right, let's save it like it is. Because I want to

1 demonstrate on the other image why this may not be a  
2 reliable point.

3 MISS BAHRAMI: That's saved as FI2209.11.

4 MR MOYNIHAN: Carry on, Mr Wertheim, sorry.

5 A. What I'm going to do is selectively erase this line and  
6 this line (**indicated**) and now I'm going to suggest an  
7 alternative interpretation. So many colours to choose  
8 from. Let's use magenta. This is an alternative  
9 interpretation of the ridge above and an interpretation  
10 of the ridge above that (**indicated**) and because we're on  
11 the very edge of this print, we can't be absolutely  
12 certain whether the first interpretation within the  
13 yellow circle is correct or if this second  
14 interpretation within the yellow circle is correct.

15 In the area where I have the green circle to the  
16 left in Y7, there is a clear unambiguous point, be it a  
17 ridge ending or a bifurcation is irrelevant. It is a  
18 clear, unambiguous point. But the area within this  
19 yellow circle, because it's on the very edge of the  
20 print, we cannot carry our interpretation of the ridges  
21 lower than that to determine which is correct and,  
22 therefore, any selection of a point within that yellow  
23 circle I would deem undependable.

24 Q. That is point 1.

25 While we are on these images, first of all, the

1 image on the left, I will save.

2 MISS BAHRAMI: That is FI2209.12.

3 MR MOYNIHAN: What I want to do is -- I will leave it as it

4 is. I want to concentrate on your green circle which I

5 will highlight with an arrow. You will see there are

6 two points, one within your green circle, one just to

7 the edge.

8 A. Yes.

9 Q. I have said to you that those are SCRO points 15 and 16.

10 We can see two points there. You have conceded there is

11 either a ridge ending or a bifurcation in that area.

12 What I want you to comment on is the suggestion that

13 what is to be seen in the green circle on Y7 corresponds

14 to the area that I am pointing to now with my cursor

15 **(indicated)** in Shirley McKie's print. I will try,

16 without obscuring the point, to put an arrow in to

17 indicate what I am looking at.

18 A. Yes, sir.

19 Q. Those are points 15 and 16 if people accept that from me

20 for the moment.

21 First of all, on Ms McKie's left thumbprint, the

22 plain print, the two points that are marked as 15 and

23 16, how would you describe them?

24 A. On the left?

25 Q. On the right-hand image.

1 A. On the right-hand side in Ms McKie's inked print what I  
2 see there are two ridge endings that overlap, one ridge  
3 ending points to the left. That's the lower ridge  
4 ending. The upper ridge ending points to the right.

5 Q. I have also heard a description of a ridge break. Is  
6 that an acceptable term or not?

7 A. Okay, I would accept that with the caveat that normally  
8 when one refers to a ridge break is referring to a line  
9 that runs perpendicular to the ridges.

10 A ridge is actually a series of ridge units that  
11 combine to form the ridge. Each ridge unit is a sweat  
12 gland and the surrounding tissue, and the sweat gland  
13 surrounding tissue, the ridge units, line up to form a  
14 ridge.

15 A ridge break is normally a disconnect between two  
16 ridge units. What we see here is not a disconnect  
17 between two ridge units but one ridge that tapers  
18 sharply above another ridge that tapers in the opposite  
19 direction below. You can call this a ridge break as  
20 long as you're not subscribing to the idea that a ridge  
21 break occurs between two ridge units.

22 Q. Whatever description you wish to apply yourself as the  
23 preferred term for points 15 and 16 in Shirley McKie,  
24 the two nestling points of ridge ending you see, can you  
25 comment, please, on the proposition that that is the

1 interpretation that is appropriate for the green circled  
2 area that you have marked in Y7 on the left?

3 A. I see one point in Y7 on the left and if I can proceed  
4 with marking, I believe I can explain why that is not  
5 two points.

6 Q. Before we do, if I save the image on the right with my  
7 arrow.

8 MISS BAHRAMI: That's saved as FI2209.13.

9 MR MOYNIHAN: Mr Wertheim, do you want to do your marking  
10 now in relation to points 15 and 16?

11 A. Let's see. I'm going to see if I can cut this a little  
12 closer in here. I'm going to try to include point 1 and  
13 also the point marked in the SCRO chart as point 3, all  
14 right. Ah, we've got them.

15 Now, let's see in here if we can likewise take a  
16 collection of points that shows point 3, point 15 and 16  
17 and the thing they have as point 1. Okay, to start with  
18 as reference here, I'm going to choose a green arrow and  
19 I'm going to mark point 3, okay. I'm going to say that  
20 I accept completely for purposes of this discussion that  
21 these two points are our equivalent points.

22 Now what --

23 Q. Just for the record the two points you said are the  
24 equivalent are the two green arrows you placed on the  
25 images which coincide with SCRO points 3?

1 A. That's correct.

2 Now I'm going to choose -- I think I'm going to  
3 choose a light blue line and we're going to trace some  
4 ridges here. So this green arrow goes to the  
5 bifurcation that I'm currently marking with a light blue  
6 line as SCRO point 3. Is that correct? That is the  
7 point 3?

8 Q. I assume so. Yes.

9 A. So there's our point 3. Now let's take the next ridge  
10 up and that's this ridge (**indicated**) and the next ridge  
11 up which I've already marked in green but I'm going to  
12 go over it again in light blue -- and I've run out of  
13 mouse pad here so just a second ... there we go. Now  
14 we'll take the next ridge up ... can I go back or am I  
15 going to have to trace it again?

16 Q. It's still there.

17 A. I'll cut it back up. I'm running into an accidental  
18 finger twitch when I do that.

19 Now we're going to go back to the light blue  
20 squiggle. I'm going to continue to mark these ridges as  
21 I see them going up and now I'm not even going to go  
22 into the yellow circle again. We're just going to stop  
23 short of that.

24 Okay, now I'm going to use the light blue to trace  
25 the ridges in Shirley McKie's inked fingerprint. I've

1 got to say while I'm doing this that this mouse pad  
2 makes this much more reliable than working on the wooden  
3 desktop when I was trying to learn to use this software  
4 yesterday. So there we go.

5 Now what I want to look at here is the distance  
6 between some of these points so let's see ... does this  
7 purple icon draw a straight line?

8 MISS BAHRAMI: Yes.

9 A. From point A to point B and it's a perfectly straight  
10 line, okay. So we're going to draw a straight line from  
11 here up to the point marked number 15. So this is a  
12 straight line from point 3 to point 15 and here we have  
13 a straight line from point 3 to point 15 and that's a  
14 blue line, a dark blue line.

15 We see in Y7 that it crosses two ridges and we see  
16 in Shirley McKie's print that it crosses two ridges.  
17 The problem I'm running into with this interpretation is  
18 twofold. Number 1, I'm going to draw a purple circle  
19 and inside this purple circle I don't believe there's  
20 any reliable way -- the purple circle is in Y7  
21 indicating the point interpreted by SCRO as point 16, I  
22 do not believe that this image justifies the  
23 interpretation of that second point, number 16, in that  
24 location. I agree with the point 15, I agree with its  
25 relative position to point number 3 but I don't agree

1 that the point number 16 is a reliable point.

2 I have one other problem here and that is I'm going

3 to use now -- these colours certainly do allow us to

4 keep things straight -- I'm going to just use a white

5 circle now and this would be with reference to the chart

6 enlargement behind me, this would be SCRO point 2.

7 Okay, I didn't see that coming. So we're not going to

8 use white. We don't have an orange circle -- I'll use

9 an orange circle. Okay, I've circled in Shirley McKie's

10 inked print the clear bifurcation marked number 2 in the

11 inked fingerprint and I'm going to put an orange circle

12 in the same area on Y7.

13 In the orange circle in Y7 I do not see a

14 bifurcation. My interpretation of those ridges is that

15 they are straight, uninterrupted ridges in that area

16 without a bifurcation represented anywhere in there.

17 That is addressing point 2 on the SCRO chart.

18 So we've got four points charted here, in summary,

19 for these pictures. Point number 3 has a green arrow --

20 MR MOYNIHAN: Give me just a second. The screen is somewhat

21 crowded and I do not want to lose this. We have now

22 saved both images.

23 A. So let me just ...

24 MISS BAHRAMI: FI2209.14.

25 A. To summarise here, we see four points marked in the SCRO

1 chart -- no, we see five points marked in the SCRO chart  
2 here. Point number 1 I've discussed in the other charts  
3 so I won't belabour that. Point number 2 in the orange  
4 circle in Y7 in the inked print is a clear bifurcation  
5 in Shirley McKie's inked fingerprint but I simply do not  
6 agree with the interpretation in Y7. I see no  
7 bifurcation at that area in Y7.

8 Point number 3 in the SCRO print is the downward  
9 opening bifurcation. I agree with that.

10 From point number 3, represented by the green arrow  
11 in both prints, following the blue line that I've drawn  
12 upwards, I will agree with point number 15, an ending  
13 ridge, which in Y7 I've put inside of a green circle,  
14 but point number 16 as represented by SCRO is another  
15 ending ridge and, as represented by the purple circle in  
16 Y7, I do not agree with that point.

17 Q. This is actually helpful because we are dealing with one  
18 particular segment, 15, 16, 1, 2 and 3. We will come to  
19 4 just in a minute.

20 If we can look just at your own charts, if I can  
21 take down I think the image on the right-hand side and  
22 replace it with FI0130, page 23 what I am interested in  
23 is area 12. You need to just double-check your area 12.  
24 From the chart behind you I understand area 12 to  
25 coincide with SCRO point 2.

1 A. I have my notes here so let me ... my notes reflect the  
2 page that you've got up there. Yes, okay.

3 Q. So your area 12 coincides with point 2 and what I am  
4 trying to follow just now is whether the drawing you  
5 have done freehand on the top right-hand, to what extent  
6 it coincides with what you have just drawn on the image  
7 for us just now?

8 A. We have these images saved as they appear now; is that  
9 correct?

10 Q. Yes, we have.

11 A. Then I am going to add --

12 MISS BAHRAMI: Individually, not together.

13 A. What I've drawn in the page on the right-hand side of  
14 the screen now, at the top of the page it says page 8 of  
15 8, and you've got it marked, I believe, as page 23?

16 MR MOYNIHAN: Yes.

17 A. In the right side of the drawing of Y7, I've got a  
18 yellow circle around a feature that may be a small  
19 enclosure or it may be an artefact of distortion.

20 What I'm going to do then is choose another one of  
21 these amazing colours and let's see -- I don't believe  
22 I've used the dark purple yet, have I? We'll use the  
23 dark purple and if we start at SCRO point number 3, we  
24 can skip three ridges and on the fourth ridge out this  
25 is an alternative possible explanation that I've tried

1 to demonstrate in that drawing and that is that there  
2 may be a little enclosure right there. It is not  
3 reliable because the clarity of this print is too low to  
4 allow the Level 3 information to reproduce accurately.  
5 Therefore, you lack the degree of tolerance that you  
6 would need to say with any degree of certainty that  
7 there is, in fact, an enclosure here. I've put a white  
8 circle around this purple ridge to make it a little more  
9 clear.

10 As I noted in my drawing in area 12, which is on the  
11 page on the right side of the screen, one interpretation  
12 would be that there is a small enclosure in the ridge  
13 but it may not be there, it may be an artefact of  
14 distortion. Now, if that is what the SCRO intended to  
15 be their point number 2, then we've still got, I  
16 believe, a wee bit of a problem here and that is if we  
17 can put Shirley McKie's inked fingerprint back up next  
18 to them --

19 Q. Give me just a second actually before we do that.

20 A. Let me explain it then without reference to that because  
21 my words will go in the transcript.

22 If that is the feature that the SCRO indicates as  
23 their point number 2 the problem is that in Shirley  
24 McKie's inked fingerprint there are only two intervening  
25 ridges between point 2 and point 3 and, in fact, point 2

1 would be on the line going down from point 15; whereas  
2 this feature that I see as an enclosure is three ridges  
3 removed from point 3 and is not on the same line going  
4 down from point 15.

5 Q. Before we try to actually capture that particular one,  
6 because you will need to demonstrate and then we can  
7 start with a clearer picture on the right-hand side, the  
8 first point I am interested in is on your own charting  
9 area 12 you have drawn from Ms McKie's fingerprint the  
10 area that I called the ridge break, 15 and 16 -- and I  
11 take your correction about the imprecision of my  
12 language -- drawing as a ridge break 15 and 16 as I  
13 would term and it's one ridge in from the right-hand  
14 side. One ridge in on your Y7 drawing, one ridge in  
15 from the right-hand side, is this open area, **(indicated)**  
16 almost a very, very small lake. You do not in your  
17 drawings have any ridge ending to correspond either 15  
18 or 16 and yet what you have drawn for the Inquiry by  
19 virtue of the access to this much enhanced image could  
20 be a ridge ending to coincide with point 15.

21 So it would seem that what you have drawn in the  
22 Inquiry does not coincide with what you have drawn free  
23 hand for area 12.

24 A. I accept that because this is gross interpretation of an  
25 unclear image. As I look at this -- and I'm looking now

1 at the actual chart enlargement from SCRO, not at the  
2 screen -- and I'm going to point 3 ... 1, 2, 3, 4. Now,  
3 coming back to the screen, I'm going to confuse the  
4 issue with yet another line and I'll use this time a  
5 brown line. An alternative interpretation of this would  
6 be that the ridge coming up through point 15 continues  
7 upwards over this way (**indicated**) and the ridge above it  
8 would come to a ridge ending about right here  
9 (**indicated**) which would then be the point labelled 16.

10 In other words, if instead of a ridge ending if we  
11 had a bifurcation up here, I've traced -- I thought it  
12 was brown but it appears to be more maroon -- ridges.  
13 Heaven help the person that has to try to reconstruct  
14 this from a transcript ... I'm drawing a light blue  
15 circle around an area encompassing the points marked on  
16 Y7 as 15 and 16.

17 This could be a bifurcation as demonstrated in the  
18 purple. It could be a ridge ending as demonstrated in  
19 the light blue. Conversely, it could be a straight  
20 ridge on the lower end where I have the ridge ending and  
21 a ridge ending above in that area. (**Indicated**) There  
22 is some point in that area which, with reference to my  
23 chart, I will mark. I'm going to put a red circle on  
24 the page on the right-hand side here and it would be  
25 somewhere up in here. (**Indicated**)

1 I believe my intent in area 12 was not to address  
2 the issue of points 15 and 16 but to address the area  
3 that I've got represented by the yellow circle which  
4 I've written in my handwriting on my notes there as, "a  
5 possible enclosure in Y7 may or may not be caused by  
6 distortion."

7 So I don't believe in the drawing that I have here,  
8 Mr Moynihan, that I ever intended to address the issue  
9 of 15 and 16 in this drawing.

10 Q. Not number 12. If I can take you -- first of all, can  
11 we save as a single unit the two pictures that are up  
12 just now.

13 A. We might want to save those and start over with some  
14 clean images.

15 Q. If you will bear with me.

16 MISS BAHRAMI: FI2209.15.

17 MR MOYNIHAN: On the right-hand side if we go back one page,  
18 please, to page 22, area 11, Mr Wertheim, is what I  
19 understood in fact my notes suggest in area 11 you were  
20 dealing with points 15 and 16.

21 A. That's correct.

22 Q. Again we see as circled on the right-hand side pointed  
23 to by the upper arrow again the feature I call the ridge  
24 break.

25 On this occasion on the left, the upper circle in

1 the corresponding area of Y7 you have drawn a  
2 bifurcation, not a ridge break, and that coincides with  
3 what you have now drawn, if I can follow this  
4 multi-coloured image on the left, it's the bifurcation  
5 in the purple within the light blue circle?

6 A. That's correct.

7 Q. I have to confess to being colour-challenged when it  
8 gets to things as complicated as this.

9 What you have actually now drawn for the Inquiry  
10 here as an interpretation of points 15 and 16 is a  
11 bifurcation in the area of the blue circle?

12 A. Yes, sir.

13 Q. Light blue, which coincides with your freehand drawing  
14 in the area for Y7?

15 A. Yes, sir.

16 Q. Given in one sense the helpful complexity of what is now  
17 to be seen on the left-hand side of the screen as saved,  
18 with many circles and many lines in fact we now  
19 understand to be a series of alternatives, are you that  
20 confident of which of these you would be nailing your  
21 colours to the mast on?

22 A. I'm not going to get married to any of these  
23 interpretations. The image is just not clear enough to  
24 be certain. I can say that within that light blue  
25 circle there is one point, unambiguously there is a

1 point within that circle, whether it is a ridge ending  
2 below a ridge, a ridge ending above a ridge, or a  
3 bifurcation, we can't determine because of the lack of  
4 clarity in Y7 and that's not the fault of the  
5 reproduction either on the screen or in the photograph,  
6 it's the fact that in that fingerprint as it exists on  
7 the wooden doorframe there is just not sufficient  
8 clarity to determine which of those three  
9 interpretations is absolutely correct.

10 Q. If you were doing this examination yourself, this  
11 comparison yourself, would you actually have noted a  
12 point in Y7 as part of your initial ACE-V analysis or  
13 would the lack of clarity have been something that would  
14 suggest you simply pass this by?

15 A. Oh, I can answer that. What do my notes show from my  
16 initial analysis back in March of '99? That's the way I  
17 interpreted it March of '99.

18 Q. So from which of the two are you asking me, is it?

19 A. Neither one is certainly correct and neither one is  
20 certainly wrong. It could be a ridge ending; it could  
21 be a bifurcation.

22 Q. If I read your notes correctly for area 15 -- I will  
23 just double check to make sure the numbers didn't  
24 alter ... 15 and 16 have always been 15 and 16. For 15  
25 you write, "ridge ending see 5 above with 15 bottom side

1 of handshake out of tolerance". For 16 you write:  
2 "smooth ridge not noted above. 16 top side of handshake  
3 out of tolerance", is what I read?

4 A. For clarification when I'm talking about a handshake I'm  
5 talking about the overlap that you call a ridge break.  
6 And your question is ...? Was there a question there?

7 Q. No, the question was would you in your analysis have  
8 noted in Y7 the feature that corresponds to points 15  
9 and 16?

10 A. No, I don't believe 15 and 16 exist in Y7. 15 might  
11 match that bifurcation or ridge ending, whichever it is,  
12 but there is no point that matches point 16. In other  
13 words, the upper side of that handshake either doesn't  
14 exist or is completely lost in the lack of clarity here  
15 but I do not agree with interpreting the top part of  
16 that handshake or the top part of that ridge break.

17 I agree that there is a bifurcation or a ridge  
18 ending at that point which might be said to match point  
19 number 15 in the SCRO chart but I do not see anything in  
20 Y7 that could even remotely be said to match point 16.

21 THE CHAIRMAN: Does that have a bearing on 15, because, as  
22 you say, it may well be that 16 just does not show?

23 A. Exactly.

24 THE CHAIRMAN: So 15 could be valid without 16 having to be  
25 valid as well because 16 may just not have come through

1 on the print.

2 A. I'm saying there is a point there in Y7 that we can  
3 accept as a ridge ending pointing to the upper left and  
4 point 15 in Shirley McKie's print is a ridge ending  
5 pointing to the upper left. But I can see nothing in Y7  
6 that justifies the interpretation of a ridge ending that  
7 points downwards to the lower right but in Shirley  
8 McKie's print I can clearly see that.

9 So what I'm saying is the interpretation of Y7 to  
10 include point 16 is not justified.

11 THE CHAIRMAN: I think I have it clear but just to be sure,  
12 15 can stand on its own without 16, if you understand.

13 You do not have to have both for 15 to be valid.

14 A. All right. I'll accept that.

15 THE CHAIRMAN: I just want to get it clear.

16 A. If that were true, then 15 and 16 come back together to  
17 make one ridge. In Shirley McKie's print as a handshake  
18 15 and 16 come back together to make one ridge, all  
19 right? But I don't see that in Y7. In Y7 what I see is  
20 at point 15 it becomes two ridges and continues downward  
21 as two ridges. It never comes back together as one  
22 ridge.

23 THE CHAIRMAN: Does that then cast doubt on 15?

24 A. It casts doubt on them as a pair. There is a point  
25 there that's marked 15 and I agree that there's a point

1 marked 15, but if you consider 15 and 16 as a pair with  
2 either a ridge break or a handshake or whatever  
3 terminology, then I would disagree with the  
4 interpretation that either -- if the question is ... no,  
5 if the proposition is they either both have to be there  
6 or they both have to be absent then I'd say they are  
7 both absent and this is just a coincidental bifurcation  
8 that accidentally happens to appear in the same place in  
9 Y7.

10 MR MOYNIHAN: What I think we will do is move from 1, 2, 3,  
11 15 and 16. Number 3 we will not need to discuss. We  
12 have mentioned it in passing anyway as a point of  
13 commonality between the two.

14 What I will move to and give us the benefit of a  
15 clear image is I am going to move to point 4, I just  
16 pointed the pencil to as point 4. I can, therefore,  
17 clean the screen and we will start again by bringing up  
18 on the left-hand side FI0167A. Again, I will begin with  
19 Y7 and highlight that. I am wanting to look at point 4.  
20 Again, before we zoom in on point 4, we've discussed  
21 this to some extent earlier on. This is this aspect of  
22 the stepped up bifurcation so it's perhaps as well if we  
23 discuss 4 and 5 together as the two features of the step  
24 up.

25 As you're looking at points 4 and 5 on the screen

1 just now, what is your initial comment on your  
2 interpretation of points 4 and 5 in Y7?  
3 A. Point number 4, again, could be a ridge ending; it could  
4 be a bifurcation; I could accept either interpretation.  
5 I tend to think that it has a stronger appearance of a  
6 ridge ending with the ridge to the right of it  
7 culminating in point 5 which also appears on Y7 to be a  
8 ridge ending but again I would say that the  
9 interpretation as a ridge ending or a bifurcation is not  
10 absolute. Either one of these points could be a ridge  
11 ending, either one of them could be a bifurcation. In  
12 Y7 they appear slightly more as ridge endings that point  
13 upward with point 4 to the left of the ridge that  
14 culminates in point 5.

15 Q. An interpretation that says that, if I could bring up  
16 again another copy, please, of FI0167A on the right-hand  
17 side, what I am going to do on this occasion on the  
18 right-hand side is highlight Ms McKie's fingerprint so  
19 we now see, if I can mark by an arrow, point 4 -- I'll  
20 try and stay a little clear of it with my arrow -- and  
21 point 5.

22 A. Excuse me, I believe point 5 is one ridge further down  
23 from that.

24 Q. Is that correct? On the right-hand image I have  
25 highlighted point 4?

1 A. It's close.

2 Q. Close enough because I don't want to obscure --

3 A. Well, we can clearly see what point we're talking about.

4 Q. Having highlighted on Ms McKie's fingerprint the  
5 points 4 and 5 that are said to be coincident with the  
6 points 4 and 5 charted on Y7, what is your comment?

7 A. May I cut further then?

8 Q. Yes please.

9 A. Can we erase that. I can double click on it and it will  
10 give me another chance. I need to cut that box larger.  
11 Now let's see if I can approximate that here.

12 I'm going to start out with green to trace the  
13 ridges as I see them in Y7 and I am going to start with  
14 SCRO point number 4 and going down from point 4, I've  
15 traced the ridge. Now, I've traced it as a ridge ending  
16 because I see a break between that and the adjacent  
17 ridge. The SCRO has matched that to a bifurcation in  
18 Shirley McKie's print. I'm not denying that it's  
19 possible to interpret that as a bifurcation, but if you  
20 consider it as a stand-alone point is one thing and if  
21 you consider it in concert with others there's a  
22 difference.

23 Now I'm going to start at the point marked by the  
24 SCRO as point 5 and I'm going to follow that ridge down.

25 Now I'm going to put the adjacent ridges on so that

1 we can keep point 4 and 5 in context and, finally, I'm  
2 going to trace the bifurcation marked point 3 for  
3 reference.

4 In the inked print, I'm going to draw a green circle  
5 around point 3 just so we can keep our references  
6 straight here. I'm sorry, it's a red circle, a red  
7 circle around point 3 and the green arrowhead you drew,  
8 Mr Moynihan, is within that circle.

9 Going over on Shirley McKie's inked fingerprint,  
10 going over to point 3 -- point 4, going to point 4 I'm  
11 tracing the ridge in the inked print in green and I'm  
12 tracing next to it now and then I'm tracing the ridge  
13 that goes to SCRO point number 5 as a bifurcation in  
14 green.

15 I'm going to use yellow now to mark the connections  
16 because this is another one of those where you have to  
17 connect ridge endings with adjacent ridge edges to make  
18 them bifurcations. In the latent print Y7 at point  
19 number 4, if we're going to say this is a bifurcation,  
20 the yellow connection lines show that we have to connect  
21 point 4 to the adjacent ridge on the right-hand side and  
22 we have to connect point number 5, the ridge ending,  
23 with adjacent ridge on the left-hand side. If we do  
24 that and if in yellow we join point 4 to the ridge going  
25 to point 5 in Shirley McKie's inked fingerprint, then we

1            have a configuration that roughly matches the point 3, 4  
2            and 5 between the inked print and the latent print Y7.

3                       This is why I like to talk more about areas in mine  
4            because we've got an area here that has three points in  
5            it but we've had to connect several ridge endings and to  
6            confuse the matter we have had to connect ridge endings  
7            to adjacent ridges on the wrong side, one to the right  
8            and one to the left, in Y7 in order to sort of shoe horn  
9            Y7 into matching the inked print.

10                      While admittedly I agreed to this at Shirley McKie's  
11           trial, in reality I don't find these points within  
12           tolerance to be reliable as a group and that's because  
13           I've had to connect too many ridge endings to different  
14           sides in order to make it fit what I see in Shirley  
15           McKie's inked fingerprint. We have three points there  
16           and the three points are marked 3, 4 and 5 but I'm not  
17           comfortable accepting them as an absolute match in this  
18           situation.

19    Q.    One other feature I wanted to ask you about, if you  
20           recollect we looked at the rolled and there was a  
21           possibility there was a ridge ending rather than a  
22           bifurcation in the area of point 4?

23    A.    Yes, that's correct.

24    Q.    If I look at it on what you have drawn, the ridge that  
25           flows up to form the upper bifurcation point 5 is the

1 ridge to the right that flows on up past point 4 and  
2 continues as a ridge up to point 5.

3 A. Yes, sir.

4 Q. Similarly on the inked impression, if one takes the  
5 right-hand leg of the bifurcation at point 4 as part of  
6 a bifurcation it would flow round and up to point 5?

7 A. Yes.

8 Q. If, however, the right leg is a ridge ending as the  
9 rolled might suggest, then what you have got in the  
10 right-hand picture as the yellow intersection to make it  
11 a bifurcation does not exist?

12 A. That's correct. I'm saying you can force it to sort of  
13 match if you connect these ridges in different  
14 directions but then the shape of that stair step is all  
15 wrong. In the inked print you've got the stair step  
16 with the sort of double hump but if you force it to  
17 match by connecting the ridge endings, then in Y7  
18 instead of that double hump you've mostly got just a  
19 smooth line going all the way up and it doesn't match.

20 Q. So you have a smooth line on the outside with the two  
21 bifurcations opening on the inside; is that what you're  
22 saying?

23 A. Yes, pretty much. Yes, a smooth line on the -- I'm  
24 sorry, did you say left or right?

25 Q. A smooth line on the right closest to --

1 A. In Y7?

2 Q. Yes, in Y7, straight line in the right, closest to  
3 bifurcation number 3 with point number 4 opening on the  
4 inside -- that's to the left. Whereas what you are  
5 saying by the step might be wrong is what you have drawn  
6 in Shirley McKie as a bifurcation is a straight line but  
7 more to the left, with the bifurcation on the right-hand  
8 side. So the bifurcation just is the wrong way round?  
9 Is that what you are indicating?

10 A. That's correct.

11 Q. That might be a suitable point to stop with points 4 and  
12 5. I have got open just for the sake of clarity what  
13 you have drawn if we could take down I think on the  
14 right-hand side -- sorry, let's save as one picture,  
15 please, before I forget, both as one picture.

16 MISS BAHRAMI: That's saved as FI2209.16.

17 MR MOYNIHAN: If I bring up on the right-hand side an image  
18 which is FI0130.18. On this occasion, Mr Wertheim, what  
19 I want to do is look at your area 2 and perhaps if I  
20 just pick up your drawings in area 2, you have in fact  
21 drawn for us on the left-hand side as your reproduction  
22 of Y7 what you have, in fact, marked on the chart with  
23 the connections passing as you said in the opposing  
24 directions. Is that correct?

25 A. Yes, sir.

1 Q. Compared with the double hump 4 and 5 in Ms McKie's  
2 print?

3 A. Yes, sir.

4 Q. Please tell me if there is anything else in your area 2  
5 narrative that you want to pick up that you have not  
6 already dealt with?

7 A. No, I think we've talked about area 2.

8 Q. In that case, if we take down these pictures and we will  
9 bring up again another clear image of FI0167A, what I am  
10 going to do now is move to point 7. Again, if I  
11 just highlight as I have done before Y7 and start there,  
12 point number 7.

13 A. Are we to skip point number 6 then?

14 Q. Sorry, I apologise. No we are not going to skip number  
15 6. I perhaps got too optimistic where I was in my  
16 numbers. Let us do point number 6. I have no intention  
17 of skipping anything.

18 Again, if we can look at this we will zoom in in a  
19 moment. You can use the original please. It is beside  
20 you. Without looking at it in detail, what do you make  
21 of point number 6?

22 A. In Shirley McKie's inked fingerprint, point number 6 is  
23 a clear bifurcation, symmetrical, even, very gradual,  
24 the ridges on both sides straight, the bifurcation  
25 opening downward.

1                    On point number 6 in Y7 I'm seeing that there is a  
2                    feature somewhere in the general area but I don't agree  
3                    with the placement of the tiny yellow dot at the end of  
4                    the red line which leads from number 6 into Y7. I  
5                    believe the interpretation is off.

6        Q.    You are saying that by looking at the photographic  
7                    original to begin with?

8        A.    I'm looking at the photographic original as I say that.

9        Q.    What I will do is highlight a segment so we can have a  
10                    closer look ourselves at where point number 6 is on the  
11                    digital image we have here.

12      A.    Yes, sir.

13      Q.    As we see it on the computer screen, is that consistent  
14                    with what you've seen in the photographic originals to  
15                    your right?

16      A.    Yes, sir, it is.

17      Q.    I take it from what you have said you, therefore, think  
18                    that there is no particular feature pointed out by the  
19                    red dot at the end of line number 6.

20      A.    That wasn't exactly what I intended to imply. I  
21                    intended to say that there is a point somewhere in that  
22                    general area but I would not interpret this as showing  
23                    that point at that yellow dot at the end of the red  
24                    line. I do not believe there is a valid point at that  
25                    exact location.

1 Q. It then becomes difficult to know to which side one  
2 moves as the correct feature that's been highlighted at  
3 this point. Perhaps if I move what I have just now to  
4 the left and bring up a copy of Ms McKie's print again,  
5 FI0167A, if we can highlight Ms McKie's fingerprint,  
6 point number 6 -- again, I will highlight the section so  
7 we can look at point number 6 more closely -- point  
8 number 6 would appear to be a bifurcation.

9 Is that roughly correct?

10 A. Yes, sir.

11 Q. The arrow is roughly where it should be. A bifurcation?

12 A. Yes, sir.

13 Q. What is your comment on the proposition that in Y7 in  
14 the vicinity of point number 6 we see the echo of point  
15 number 6 in Miss McKie's fingerprint?

16 A. I like the word echo. May I enlarge?

17 Q. Please take over.

18 A. I'm going to try to encompass approximately the same  
19 area here. As a starting reference, I'm going to use a  
20 green line in Y7 to trace the lines that form points 4  
21 and 5 and for purposes of simplicity I'm going to avoid  
22 the various yellow connecting lines and just draw this  
23 in as two downward opening bifurcations designated by 4  
24 and 5.

25 There's 4 and 5 marked in Shirley McKie's

1 fingerprint (**indicated**) and I'm going to put red arrows  
2 at numbers 4 and 5 to show what I'm talking about as  
3 opposed to your green arrow pointing to number 6.

4 To continue on with the green lines, we have one  
5 intervening ridge in Shirley McKie's inked fingerprint  
6 and then the second ridge comes down to the bifurcation  
7 marked as point 6 in Shirley McKie's fingerprint. I'll  
8 not draw a red arrow to point number 6 here because  
9 we've got the SCRO's red line going to it and I think we  
10 are clear on what we're talking about. I may come back  
11 and mark it again later.

12 Just for sake of continuity I am going to fill in  
13 one more ridge to the left of point 6 which also comes  
14 down to a bifurcation.

15 Now, I'm going to come over to Y7 and I'm going to  
16 start with SCRO point 4 and it's the ridge ending that  
17 points up and then point 5 is another ridge ending that  
18 points up. The next ridge over is the one that we said  
19 could be the joining line between them and I used a  
20 yellow line, I believe, to say, right, we've got to  
21 connect that one there, we've got to connect this one  
22 here. If we do that we've got two bifurcations that are  
23 point 4 and 5.

24 Now I'm going to go back to the green line and  
25 continue to trace ridges in Y7. The area that I'm sort

1 of circling now with my cursor is the ambiguous area, so  
2 I'm going to leave room for several interpretations.

3 This that I'm marking with the green arrow first is  
4 the closest to SCRO point number 6 as point number 6 is  
5 marked in this chart. There is another point right here  
6 **(indicated)** and then there's a ridge ending that goes up  
7 here **(indicated)**. I'm marking all of these are in  
8 green. Then the next adjacent ridge comes down smoothly  
9 and unbroken and I think we can all agree on that.

10 I'm going to put a yellow circle around an area that  
11 has to have some kind of a point in it. Somewhere  
12 within this yellow circle is a point. The question is  
13 how we are going to interpret it. I'm going to say  
14 let's take a light green and connect the ridges to what  
15 appears to be the most reasonable interpretation and  
16 that is a bifurcation at this point. The problem with  
17 this is that if we use these light green lines to  
18 connect these assorted ridge endings to form one point,  
19 then from point 5 to point 6, as indicated by the blue  
20 line, does not cross any intervening ridges. But if we  
21 come to Shirley McKie's inked print and draw a blue line  
22 from point 5 to point 6 it crosses an intervening ridge.  
23 So that is clearly out of agreement. Those two points  
24 cannot be said to match. Points 5 and 6 in Shirley  
25 McKie's print do not match point 5 and 6 the way we've

1 interpreted it in Y7 with these green lines.

2 However --

3 Q. If I can just stop you also because a point you had  
4 drawn I had not appreciated. If point 4 is as drawn on  
5 Ms McKie then counting the ridges there's 1, 2, 3, 4  
6 ridges to get to point 6; whereas, as drawn here --  
7 maybe I've got this wrong -- 1, 2, 3, 4, whereas as  
8 drawn here there's 1, 2.

9 A. Okay, let me correct there because you're starting -- at  
10 point 4 you are starting on the right-hand leg. If we  
11 start up here (**indicated**) at the end of the arrow then  
12 we only cross two ridges going over.

13 Q. In Y7 as you have drawn it you cross only one?

14 A. That's correct.

15 Q. So if I understand this correctly in Y7 as drawn,  
16 point 4, the yellow line connects a lower line to the  
17 left to a longer line to the right and hence the longer  
18 line to the right is not included in the ridge count?

19 A. That's correct.

20 Q. If we have point 4 as in Ms McKie the ridge ending is  
21 pushed to the right and, therefore, would join right to  
22 left to the ridge that goes up to point 5. That ridge  
23 going up to point 5 then enters the ridge count to  
24 point 6?

25 A. That's correct.

1 Q. That explains why, as you have said before, how you  
2 connect up point 4 has a consequential impact on,  
3 amongst other things, point 6?

4 A. It does because if you consider point 4 as a ridge  
5 ending, as you did just now in the first instance, if  
6 you consider point 4 as a ridge ending then you have to  
7 skip three ridges to get to point 6 in Shirley McKie's  
8 print and you only skip one ridge in Y7.

9 Now let me offer an alternative interpretation of Y7  
10 that --

11 Q. If you give me a second, before we go to the  
12 alternatives because --

13 THE CHAIRMAN: Before we go can I just ask: the blue line  
14 that you put in on the left, it does cross one ridge on  
15 the way, not within the yellow circle but just outside  
16 it.

17 A. Well, it starts within the ridge at point 5 and it ends  
18 within the ridge at point 6 but it doesn't cross any  
19 complete ridges between 5 and 6.

20 THE CHAIRMAN: Yes, it's the same ridge that starts from --

21 A. Yes, sir.

22 MR MOYNIHAN: Sorry, sir. All I was going to do was save  
23 the dual picture we have just now.

24 MISS BAHRAMI: That's FI2209.17.

25 MR MOYNIHAN: Mr Wertheim, you were going to give an

1 alternative interpretation of Y7 in relation to point 6.

2 A. Yes. There is one way that we could interpret these  
3 ridges to make it fit Y6 (**sic**) and that is this -- and I  
4 am going now to use a red line -- and that is if we  
5 disregard the light green connections that I have put in  
6 point 6 and if we connect that ridge ending over this  
7 direction so that the point 6 is now within the red  
8 circle or the red oval, if we do that then the ridge  
9 counts come out right.

10 The problem with that is that I believe that is an  
11 incorrect interpretation of the way to connect those  
12 ridges. In order to do that, we have to make an almost  
13 90-degree connection with the ridge to the left and call  
14 Y6 (**sic**) on that ridge and I believe we run into other  
15 problems later if we do that but we'll talk about that  
16 later.

17 However, I believe that the connection that I've got  
18 marked in red would make the ridge counts come out  
19 correctly but that's the wrong interpretation of those  
20 three little ridge endings that I had initially marked.  
21 To clarify that while I'm testifying to it, I'm going to  
22 put three little yellow circles, small yellow circles,  
23 to mark these original ridge endings for clarification  
24 in the record. It turns out I'm not drawing very good  
25 circles ... they are three little yellow ovals and that

1           one turned out to be more of a yellow line so let's  
2           correct that with this.

3                     I've got three little yellow circles marking what we  
4           first interpreted as possible ridge endings that we  
5           would have to connect in different configurations and to  
6           make this work as Y6 (**sic**), then I've got to connect the  
7           various ridge endings as shown now with the red lines  
8           connecting the various ridges and I reject that as an  
9           interpretation of Y6 (**sic**) because the connection of the  
10          lower most of those points in the red circle is highly,  
11          highly improbable. I find that unreliable.

12                    I believe the correct interpretation is the one I  
13          made with the light green lines connecting the three  
14          yellow circles and I believe the interpretation using  
15          the red lines to connect the yellow circles is  
16          incorrect. Using the red lines make the ridge count  
17          come out right but it's the wrong interpretation.

18   THE CHAIRMAN:   Have we reached a point on this point or  
19          area?

20   MR MOYNIHAN:    I think so, sir, since I was not planning to  
21          sit until midnight.

22   THE CHAIRMAN:    I will have to disappoint you by not sitting  
23          until midnight but thank you very much.

24   A.   I just want it on the record I'm willing to stay. I'm  
25          having fun.

1 MR MOYNIHAN: I just want to save the image.

2 THE CHAIRMAN: Save the image and tomorrow morning we will

3 begin at 10.00 because I am anxious to get as much

4 done ...

5 MISS BAHRAMI: It's FI2209.18.

6 THE CHAIRMAN: 10.00 tomorrow.

7 **(4.38 pm)**

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

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25