

1

Tuesday, 10th November 2009

2 (Afternoon session)

3 (1.55 pm)

4

ROBERT MACKENZIE, recalled

5 THE CHAIRMAN: Mr Mackenzie, thank you for coming back.

6 I apologise again to Ms McBride for interrupting her

7 evidence but I gather you have been kind enough not to

8 object to that.

9

Examined by MR MOYNIHAN (continued)

10 Q. Mr Mackenzie, you are primarily back to now give us your

11 own view in relation to Q12 and, in particular, to deal

12 with the views of some of the other witnesses who have

13 given evidence.

14 Before we get to that though, because I will

15 otherwise forget, I have been asked to clarify something

16 in relation to Collette Orr.

17 A. Okay.

18 Q. The Inquiry has heard some evidence about a difference

19 of view as between Collette Orr and Mr Luckraft. I

20 don't really want to go too much into the background of

21 that but, so far as any reassignment of Miss Orr within

22 the office is concerned, is that just simply routine and

23 unrelated to any difference of view with Mr Luckraft?

24 A. As the Deputy Head of the Bureau one of my tasks would

25 be, on a yearly basis -- we didn't do moves virtually

1 any other month of the year, it was basically round
2 about September-time we would review staff within each
3 team as to whether or to the length of time they had
4 been at a particular team and obviously the overall
5 needs of the Department as to whether we would move one
6 member of a team to another member of a team and that
7 was down round the September-time, usually about the
8 beginning of September and it wasn't massive changes.
9 It might have been three or four people and maybe the
10 odd trainee because the trainees, it was useful for them
11 to rotate within different teams and have different
12 mentors so that usually happened. The decision on that
13 and the implementation of that was usually round about
14 the beginning of September and the reason behind that
15 again was that people would be planning their annual
16 leave for the following year and round about
17 September-time we would ask them to submit what they
18 would like as preferences in the way of annual leave.
19 So one fell in conjunction with the other.

20 But as far as the suggestion that Collette Orr
21 and -- was there a suggestion it was Collette Orr and
22 Richard Luckraft that were both moved? Certainly, I've
23 no knowledge, and it would be myself that would be
24 directly involved if somebody was moving from one team
25 to another. As a result of any particular discussion in

1 a case I've never known or not had involvement myself in
2 moving somebody because of an issue.

3 The only movements of teams would be, one, for the
4 needs of the Department to strengthen the team. It
5 could be the Special Cases Team had high volume of
6 murders ongoing and they might have to occasionally
7 augment that team, but as far as regular moving of
8 people, it usually occurred round about September and
9 any moves that occurred that have been suggested,
10 presumably by Mr Luckraft, would be to do with the
11 normal rotation.

12 Q. Thank you very much.

13 Having dealt with that matter, we will come now to
14 Q12. For the purposes of this particular session of
15 your evidence, you have yourself prepared some
16 additional enlargements that you are going to talk
17 through.

18 A. Can I explain, basically I think you gave me up the
19 original book the last time and that was the one
20 prepared on 27th July 2001 which had 29 characteristics
21 marked off on Q12 and on Marion Ross's right forefinger.
22 So to try and assist the Inquiry, I suggested that I
23 might actually break this down into four sections of Q12
24 and the same four sections of Marion Ross's right
25 forefinger.

1 To achieve that, I came a week past yesterday and
2 with the assistance of Lynne Allan, great assistance of
3 Lynne Allan as far as the technology was concerned, I
4 was able to produce the illustrations that are now on
5 the system and she actually wrote, she handwrote the
6 numbers on to them. So that was something I couldn't do
7 so between her working the system and putting the
8 numbers on, that's how we've achieved what I'm about to
9 show you.

10 Q. The images you use as the base for this comparison, are
11 they the same images that you used for the exercise you
12 undertook for Mr Gilchrist?

13 A. Sorry?

14 Q. The images that you have used for this afternoon's
15 evidence, are they the same images you used for
16 Mr Gilchrist's exercise, that's the photographs in the
17 book?

18 A. Yes. I think pointed out that I had identical glossy
19 copies the last time of what is in the book, obviously
20 without the lines on them. So these are the ones that
21 were captured onto the system and then I actually
22 measured out exact size squares that would be marked on
23 Q12 and the same size of squares marked on to Marion
24 Ross's right forefinger. So that's the continuity, if
25 you like.

1 Q. First of all, just for the record, what we looked at on
2 the previous occasion was CO2005H. Go to page 1. We
3 see that this is the booklet that is dated 27th
4 July 2001.

5 A. Correct.

6 Q. If we go within page 4 of that document --

7 A. Page 3.

8 Q. Sorry. Yes, I am looking at the digital references.

9 Page 3 of the book, page 4 digitally, is the charting
10 that you did with 29 points?

11 A. That's correct.

12 Q. In effect, what you have done is used a photographic
13 original of the same image?

14 A. Yes, with the same points marked on that were marked on
15 when I did that.

16 Q. If we then proceed through to the next page of the
17 document, page 5 digitally, there is an image of Marion
18 Ross's fingerprint with the same 29 points charted and I
19 understand it again you have used a photographic
20 original of the same image for this afternoon's
21 exercise?

22 A. Correct.

23 Q. If I can therefore bring up the first of your
24 documents -- and I will let you take control shortly --
25 TC0211.01, this is the first image.

1 What you have said is that you are going to break
2 this down into, is it four areas?

3 A. Four areas and work with them in a clockwise direction
4 and that's why I have labelled them A, B, C and D. The
5 reason for them overlapping is so there can be
6 continuity between one area to the next so as we move on
7 from A to B we will be able to see where we left off on
8 A and so on and so forth, B will overlap with C and the
9 continuity from C back to B and likewise D overlapping C
10 and the continuity back to C.

11 Q. If I also bring up side-by-side with that TC0211.02, do
12 we see that you have marked on an image of Miss Ross's
13 fingerprint the corresponding rectangles A, B, C and D?

14 A. Yes, the same measurement of the actual rectangles.

15 Q. What you are then going to do is look at your original
16 29 points now broken down into those rectangular areas?

17 A. Correct.

18 Q. In that case, if I let you give the presentation as you
19 wish.

20 A. Could I have up TC0211.03. Could I have the full image.

21 You recall the last time I gave evidence this was
22 the area that was touched on particular characteristics
23 1 to 4. So I thought I would start with the same area
24 again. This is the one marked A.

25 Point 1 is marked as a bifurcation downward. We go

1 two intervening ridges above that and we come to
2 point 2, which is a ridge ending upwards. Then we come
3 back down across five intervening ridges from point 2
4 down to point 3. Then we go up one intervening ridge
5 and then back on to the larger of the two bifurcations
6 marked in green, marked point 4.

7 From point 4, we go seven intervening ridges across
8 to point 5 and what I've actually marked on the fifth
9 intervening ridge within that magenta circle there is a
10 shape within the actual ridge itself which is actually a
11 large pore. This is actually present when you come to
12 look at Marion Ross's forefinger. It's a significant
13 feature in the tracing.

14 From point 5, we go up six intervening ridges to
15 point 6, which is the end of an island and at the other
16 end of that is point 7. The blue arrows and the light
17 blue lines indicate incipient ridges. One of them is to
18 the right of ridge -- sorry, of point 5, one intervening
19 ridge to the right of point 5 and the other two are,
20 basically, vertically above point 5. There's one
21 intervening ridge to the left of point 5. Then there's
22 an incipient ridge ending. There's another intervening
23 ridge between that and the next end of the incipient
24 ridge.

25 If we call up TC0021.07, and start again at point

1 number 1, there's a bifurcation downward. Go two
2 intervening ridges to the right and there's a ridge
3 ending upwards. Go five -- sorry, can we rewind it? I
4 went two intervening ridges to point 3 there. I'll
5 start again.

6 At point 1 we've got a bifurcation downwards. We go
7 two intervening ridges to point 2, which is a ridge
8 ending upwards. We go down from point 2 five
9 intervening ridges to point 3, which is a ridge ending
10 upwards. We go back up one intervening ridge to point 4
11 which is a bifurcation. We go from point 4 across seven
12 intervening ridges down to point 5 and on the fifth
13 intervening ridge we have the prominent pore that I
14 had --

15 THE CHAIRMAN: So what is point 5?

16 A. Point 5, sorry, is a ridge ending upwards. Sorry, on
17 the fifth intervening ridge between 4 and 5 there is the
18 prominent pore that I spoke about that was circled, I
19 think it was with a magenta circle on the previous
20 image.

21 Immediately -- sorry from point 5 one intervening
22 ridge we go across and we come to the end of an
23 incipient ridge upwards and then going vertically up
24 from point 5 one intervening ridge we come to the end of
25 an incipient ridge and then one intervening ridge again

1 and we come to the end of an incipient ridge, there
2 marked with the blue arrows.

3 If you could call up TC0211.04, I think I may have
4 missed out 6 and 7 in the last slide. Did I mention 6
5 and 7?

6 THE CHAIRMAN: I think you stopped at 5.

7 A. Can we go back? Yes, I stopped at point 5. I should
8 have actually back to 6 and 7. So if we go -- sorry,
9 from point 5 up six intervening ridges, we come to an
10 island. The left-hand end of that is point 6 and the
11 right-hand end of it is point 7.

12 We can now move back to TC0211.04. Starting at
13 point 7, that's the end of the short independent ridge,
14 we go two intervening ridges to ridge ending marked
15 point 8.

16 I should point out at this stage that the ridge
17 structure in Marion Ross's fingers is a combination of
18 very fine detail and within this structure there are a
19 number of incipient ridges present. There's also a
20 tendency for some of her ridges to go from being thick
21 in nature and thinning out nearly to the actual size of
22 an incipient ridge.

23 Now, in particular, these incipient ridges seem to
24 be in the centre of the digit and this would be
25 consistent with the actual pressure at that point of the

1 digit touching the surface and that's the more bony part
2 of the finger, whereas at the edges it's more fleshy.
3 So to actually visualise or for the incipient ridges to
4 actually come to the surface they are more likely to do
5 in the area where there's more pressure and that's where
6 they're presence on the mark and they're also present on
7 the right forefinger. So that's how the incipient
8 ridges become more visible actually under pressure.

9 8 is a good example of that, where the ridge has
10 actually thinned out coming up from the left and it's
11 very close to the immediate ridge above it.

12 We then move three intervening ridges from point 8
13 to -- sorry, yes, three intervening ridges upwards to
14 point 9 and there's a ridge ending coming in from the
15 right marked at the end of the green line with the red
16 dot.

17 If we go back down six intervening ridges from
18 point 9, we come to point 10 and again this is another
19 example of the ridge thinning out and coming in close to
20 the ridge immediately above it.

21 If we go down from point 3 -- sorry, if we go down
22 from point 10, we go across one, two, three, four
23 intervening ridges and we come to point 11, which is the
24 core of the print. It's actually a ridge ending
25 upwards. I think it has been suggested by some as being

1 described as a chilli pepper but that's the end of that
2 ridge ending upwards within the first recurve.

3 I should, again, have mentioned that in between
4 these counts, the light blue lines are indicated as the
5 incipient ridges that are present and you can see
6 there's a proliferation of them in this area, as I've
7 said, immediately above the core and to the side of the
8 core.

9 If we go immediately to the right of point 11, we've
10 got point 12, which I have marked as a bifurcation
11 downwards and immediately to the right of that, we have
12 point 13, which is a ridge ending upwards. I think I've
13 described that in my previous evidence of it had
14 actually come up a little higher than what others had
15 suggested and it's actually again another example of the
16 ridge thinning out.

17 If we go from point 13, five intervening ridges to
18 the right there's a ridge ending upwards marked as
19 point 14. If we go one intervening ridge to the right
20 of 14, we have point 15.

21 If we could have up TC0211.08, again, if we start at
22 the top we have 6 and 7, the independent ridge. We go
23 two intervening ridges downwards to the ridge ending
24 coming in from the left, point 8. You can see what I
25 mean by when I previously described the ridges actually

1 thinning out, that ridge having come up from the left
2 and thinned out and stops at point 8.

3 If we go three intervening ridges upwards from
4 point 8, we come to the ridge ending marked 9, coming in
5 from the right. If we go six intervening ridges
6 downwards, we come to point 10 which is another example
7 of a ridge coming in from the left and then thinning
8 out, stopping at the red dot, point 10.

9 If we go down four intervening ridges to the core
10 area, we come to the ridge ending up, otherwise
11 described by some as a chilli pepper. If we go on to
12 the next ridge to the right and down, we come to the
13 bifurcation downwards. If we go immediately to the
14 right of that, we have a ridge ending upwards, point 13.
15 If we go five intervening ridges to the right of
16 point 13, we come to a ridge ending up, point 14. If we
17 go one intervening ridge to the right we come to the
18 ridge ending up, point 15.

19 Again, in the light blue, you will see the incipient
20 ridges marked. As I say, there's a proliferation of
21 them in that area, typical of a core.

22 Go to TC0211.05. Again, we have the incipient
23 ridges marked in blue above the core. We have the ridge
24 ending up in the core area, number 11. One to the right
25 of it we have the bifurcation down. One to the right of

1 that we have point 13, the ridge ending upwards. Go
2 five intervening ridges to the right, we have 14. One
3 intervening ridge to the right, we have point 15. We
4 come across from point 15 eight intervening ridges, we
5 come to point 16, which is a ridge ending upwards.
6 Sorry, rerun that. We go eight intervening ridges from
7 point 15 to point 16, which is actually a ridge ending
8 down, which is immediately in the ridge detail below
9 point 13.

10 We go two intervening ridges to the right of
11 point 16 and we come to a ridge ending up, point 17. We
12 go one intervening ridge to the right and we have the
13 bifurcation down marked 18. We go down the left-hand
14 leg of that bifurcation and one ridge to the left and we
15 come to point 19, a ridge ending upwards. We go two
16 intervening ridges from point 19 and we come to the
17 bifurcation downwards, which I've described as a spur,
18 and on the right-hand leg of the spur we have the ridge
19 ending downwards, point 21. We miss one ridge to the
20 right, an intervening ridge, and we have a ridge ending
21 upwards, point 22.

22 If you miss one intervening ridge to the right, I
23 have marked a green dot and a green arrow and I'm
24 satisfied that that is consistent with another ridge
25 ending up. So that would take my tally in the end to 30

1 characteristics.

2 If we could have move to TC0211.09, again we have
3 the blue incipient ridges above the core area. We have
4 point 11, which is the ridge ending up in the core. To
5 the right of that, we have point number 12, the
6 bifurcation down. To the right of that, we have the
7 ridge ending up, point 13. We go five intervening
8 ridges across to point 14. We go one intervening ridge
9 to point 15. We come across eight intervening ridges to
10 the left and we come to point 16. We go two intervening
11 ridges to the right and we come to the ridge ending
12 upwards, marked 17. One intervening ridge to the right
13 is a bifurcation downwards. Follow the left-hand leg of
14 the bifurcation downwards and we come to a ridge ending
15 up marked 19. We go two intervening ridges to the right
16 and we come to the spur and the characteristic marked
17 20, the bifurcation downwards. The right-hand leg of
18 that is a ridge ending down below that, point 21.

19 Go one intervening ridge to the right and we have
20 point 22 and we move one intervening ridge to the right
21 of that and I've marked again the green dot with the
22 green arrow which would be point number 30, eventually.

23 THE CHAIRMAN: What again did you say point 30 -- how would
24 you describe it?

25 A. It's another ridge ending that I've since, when I

1 actually did this exercise, was satisfied that I could
2 include that and you'll see in the next slide how that
3 also falls into place.

4 Sorry, could we go back one actually to show the
5 importance of that characteristic. Can we go back to
6 TC0211.05 and I've actually traced the ridges down from
7 the top right-hand corner to the top -- sorry, the
8 bottom right-hand corner. That is point 14 which, you
9 follow it down, ends up between point 22 and what I
10 would now call point 30 with the green arrow.

11 The intervening ridge between 14 and 15 when traced
12 down finishes one ridge to the right of what I would now
13 term point 30.

14 Could we move on to TC0211.06. Again, we have
15 point 11, a ridge ending upwards. Immediately to the
16 right of that, we have point number 12, the bifurcation
17 downwards. Immediately to the right of that we have
18 point 13, the ridge ending upwards.

19 In this slide the next number is 16, the ridge
20 ending downwards at the bottom end of the core area.
21 Move two ridges to the right of point 16, two
22 intervening ridges to the right, sorry, and then we have
23 point 17, which is a ridge ending upwards.

24 The next visible characteristic one intervening
25 ridge from 17 is point 19. Two intervening ridges down

1 from point 19 we have point 23, which is a ridge ending
2 upwards. Four intervening ridges up from point 23 we
3 have a ridge ending up, point 24. One intervening ridge
4 up from point 24 we have a ridge ending to the left,
5 marked 25. Immediately to the left and down is a
6 bifurcation downwards marked as 26.

7 The green line I've marked there is indicating a
8 spur-type shape, the bifurcation being the bifurcation
9 part of the spur. The green line actually because it's
10 thinner than the actual ridges, actually, the shape of
11 it actually comes down a bit further, the lower leg of
12 it, than what's actually marked and I've marked two
13 magenta circles on here of prominent edges of the upper
14 ridge which actually surround a prominent pore
15 immediately between the two magenta circles.

16 If we go two ridge endings down from bifurcation
17 26 -- sorry, two intervening ridges down from point 26,
18 we come to point 27, which is a bifurcation upwards. If
19 we go back up to the left of that bifurcation on the
20 upper ridge, the ridge immediately above is where it
21 ends at point 28 and then if we go back on to the ridge
22 coming up from the lower bifurcation, we trace that up
23 and we come to a bifurcation downward, point 29.

24 Again, in this area, because it's in the centre of
25 the digit where the most pressure is, there are a

1 combination of incipient ridges present shown with the
2 blue lines and the dark blue ends.

3 THE CHAIRMAN: I have to say, I have trouble seeing anything
4 at 27.

5 A. Sorry?

6 THE CHAIRMAN: 27. Is the point at the end of the arrow
7 because I have to say all I can see --

8 A. It's where the red dot is, within the enclosed green
9 area.

10 THE CHAIRMAN: I'm sorry, it's my fault. I thought that was
11 26 but, no, 26 is outside.

12 A. Can I draw on these images?

13 MR MOYNIHAN: Yes, you can.

14 THE CHAIRMAN: No, I think I've got it now. 26 is outside.
15 27 is the brown dot; is that right?

16 A. 27, it's the lowest point, actually -- yes, that's it.

17 THE CHAIRMAN: Just there (**indicated**).

18 A. Yes.

19 THE CHAIRMAN: I see. Thank you.

20 A. It may be worthwhile to point out at this stage that
21 this is where I said I remember getting my start as the
22 most prominent area for my target area and I described
23 this as a lake with a bifurcation at either end.

24 Immediately to the right of that, there's a small
25 incipient ridge to the right of the upper bifurcation

1 and then immediately beside that there's two ridges that
2 actually come very close together, the one coming from
3 above comes from the right of point 5 and comes down and
4 actually virtually touches the top of the ridge with the
5 ending of point 28. So they actually come immediately
6 up against each other and that ridge follows its way
7 round and it's point 24, the ridge ending of that.

8 If I could draw on this, there's actually, when I
9 said about when we assess something, in a target area as
10 well, well, actually from my previous evidence, that's
11 taking in everything the eye can see and registering
12 that in the brain. As I say, this area to me -- and I
13 know there was other slides the previous time showing
14 the actual shapes of the ridge structure and shape, the
15 actual edges of the ridges in the lake -- but also
16 within this there are couple of significant shapes I'd
17 actually like to draw in and I'll take you back to the
18 previous slide.

19 I should have also mentioned that these two magenta
20 circles on this -- well, we're actually coming to that,
21 we'll show it on the Marion Ross's right forefinger as
22 well. But on this, if I could draw, first of all, two
23 prominent shapes and I'll try and pick a different
24 colour ... **(indicated)**

25 That last ridge structure that I was describing

1 where one ridge comes down from between point 5 and the
2 long incipient ridge and comes close to the ridge that
3 ends at point 28, there's actually a very strong shape
4 here sort of jutting out of the ridge, if you like, to
5 point 28. Also in the bottom leg of the spur up here
6 **(indicated)** there's a prominent shape coming up here.
7 It's that hook-type shape.

8 If you go to TC0211 --

9 MR MOYNIHAN: We need to save this.

10 A. Sorry, save that one.

11 MISS BAHRAMI: That's saved as FI1011.01.

12 THE WITNESS: If we go to TC0211.10, again starting in the
13 top right-hand corner we've got point 11 showing the
14 ridge ending up.

15 The ridge beside it to the right a bifurcation down,
16 point 12, the ridge immediately to the right a ridge
17 ending upwards, point 13. Then we have point 16 at the
18 bottom end of the core area, a ridge ending downwards.
19 Miss two intervening ridges and we have point 17, a
20 ridge ending upwards. Miss one intervening ridge down,
21 we have point 19. We go two intervening ridges down
22 from point 19, we have point 23, a ridge ending upwards.
23 We go four ridge endings -- sorry, four intervening
24 ridges upwards and we come to a ridge ending, point 24.
25 We go one intervening ridge upwards, we come to a ridge

1 ending to the left, point 25. We go on to the ridge
2 below that and to the left and we have the spur, the
3 bifurcation to the right, point 26. On that upper leg
4 of the spur, we have the two prominent edges of the
5 ridge surrounding the pore that I was describing in the
6 previous image.

7 We go from point 26 down two intervening ridges and
8 we come to point 27, which is the bifurcation upwards,
9 which is the bottom end of the lake. We go back up
10 along the upper leg of that bifurcation, 27, and one
11 ridge to the right and we come to the ridge ending up,
12 point 28. Immediately beside that, there's a short
13 incipient ridge and to the left of that is point 29, the
14 bifurcation downwards.

15 Again, as I did before, you will see that this shape
16 here is very prominent, the jutting out of the ridge
17 just at point 28 and up here (**indicated**) on the end of
18 the spur is this hook shape as appeared on the previous
19 image. So that area of 27, 28, 29, the shape of the
20 ridge, the incipient ridge -- sorry, the incipient ridge
21 combination, this hook shape, et cetera, the two parts
22 with the magenta circles round them, all that area was
23 my target area and that's the information my brain would
24 have been taking in in looking for a starting point in
25 this particular image.

1 I do remember, I think I will be corrected if I'm
2 wrong, but I think Mr Wertheim actually pointed to the
3 area of the lake formation and said there was
4 insufficient detail in that area, which I found quite
5 surprising because that was, to me, the strongest area
6 to actually find a start in this comparison.

7 I say that, allied to the actual shapes of, the very
8 prominent shapes of the ridge structure in the actual
9 centre of the lake in particular here, is very, very
10 strong and that's also present in the mark Q12. All
11 that information was where I started to formulate my
12 opinion of a comparison being possible from the mark and
13 then transferring that information of the target area to
14 Marion Ross's right forefinger.

15 I should have mentioned as I was actually going
16 along that my point 3 is the same as SCRO's point 14; my
17 point 4 is the same as SCRO's point 15, although I think
18 SCRO should have marked point 15 a little higher up than
19 where they actually marked it but they were marking it
20 as the bifurcation; my point 12 is the same as SCRO's
21 point 1; my point 16 is the same as SCRO's point 10; my
22 point 18 is the same as SCRO's point 3; my point 19 is
23 the same as SCRO's point 4; my point 20 is the same as
24 SCRO's point 5; my point 21 is the same as SCRO's
25 point 6; my point 22 is the same as SCRO's point 8; my

1 point 23 is the same as SCRO's point 9; and my point 29
2 is the same as SCRO's point 12. I have indicated the
3 additional ridge ending upwards with the green arrow and
4 the green dot and that's also SCRO's point 7.

5 I have made some observations on Mr Wertheim and
6 Mr Zeelenberg's presentations for the comparative
7 exercise and if I could just, again, reiterate that I
8 personally found the material for the comparative
9 exercise very difficult and having knowledge obviously
10 of the quality of the images I had available, the only
11 way that I could complete the comparative exercise was
12 to actually make reference to my original material. But
13 I have taken into account that obviously other people
14 have been looking at what I think is not as clear an
15 image as what I had.

16 Mr Wertheim's green circles, he chose to put circles
17 and numbers to areas in the comparative exercise rather
18 than addressing the points in particular and
19 Mr Wertheim's green circle 7 on Marion Ross's right
20 forefinger covers up my point 10; his purple circle 3 on
21 Q12 covers up my point 17; his red circle 4 on Q12
22 covers up my points 20 and 21, which are also SCRO's 5
23 and 6.

24 Mr Zeelenberg, on the other hand, in his PowerPoint
25 presentation in slide 124, the lower slides in that

1 page, the area of my points 20 and 21 and SCRO's
2 points 5 and 6 are disguised by strong lines drawn over
3 the characteristics.

4 I also noted on Mr Zeelenberg's PowerPoint
5 presentation slide 117, the lower left-hand slide,
6 point 9 was marked wrong and should have been on the
7 ridge to the right and that was my point 3.

8 I also noted on Mr Zeelenberg's slide 129, the red
9 dot he had marked to the left of point 12 was marked
10 wrong and should be marked on the ridge to the left.

11 Also in the comparative exercise -- and I know there
12 have been comments and, from memory, it's Mr Zeelenberg
13 and Mr Grigg who used the same terminology in describing
14 the area where I had marked ridge ending 13. That's the
15 ridge ending immediately to the right of the core and
16 there has been some discussion about that as to whether
17 it was a bifurcation or a ridge ending but they had
18 actually suggested that that ridge in particular,
19 whether it be the left-hand ridge of the bifurcation or
20 as others, including myself, have said it was a ridge
21 ending upwards, they've both mentioned in their
22 terminology that the leg of the bifurcation as they
23 described it was thinner on the left than on the right
24 on Marion Ross's right forefinger and that was claimed
25 to be a difference. There's actually a perfectly simple

1 explanation for that, in that when the prints -- sorry,
2 the fingers of Marion Ross were dusted and then the
3 white tape applied to the fingers to capture the ridge
4 detail recorded by means of the black powder, the
5 pressure was quite even across from the left to the
6 right of the core and then immediately to the right of
7 the core there's more pressure been applied and you can
8 actually see probably about 8 to 12 ridges out to the
9 right of that ridge, that's claimed to be thin, the
10 ridges have become thicker and that's down to more
11 pressure actually being applied on the finger as it
12 touched the tape. That's the simple explanation for
13 that. There's actually nothing of the sort in saying
14 that that is a difference.

15 THE CHAIRMAN: That is the person taking the print is
16 pressing the finger against the tape?

17 A. The prints would be taken in the mortuary and the black
18 powder applied to the fingers and then pieces of white
19 tape pressed round and as the tape has been -- I imagine
20 it must be the tape that would be moved as opposed to
21 the fingers being move, that actually the pressure on
22 the right-hand side of the right forefinger has been a
23 bit more from the right-hand side of the core outwards
24 and you can actually see the ridges thickening. So
25 that's a simple explanation as to why one's thin and

1 then it changes, actually the other ridges all change to
2 be thicker to the right of that.

3 THE CHAIRMAN: Yes.

4 A. So I don't see any issue over that at all.

5 I've made a few observations if it would be possible
6 for me now to add that having completed the actual
7 presentation of the characteristics. Most of them are
8 in relation to Q12, if I may be allowed to expand on
9 that.

10 The evidence of Durham, specifically Mr Sheppard,
11 who stated there was only one identifiable
12 characteristic in relation to Q12, is puzzling to say
13 the least. I'm curious to find out if Mr Mike Thompson,
14 currently the head of the Fingerprint Training at Durham
15 Training Establishment and who it is claimed also
16 carried out an independent analysis of Q12, is of the
17 same opinion as his former colleague re the number of
18 identifiable characteristics in Q12.

19 I also noted that Mr Grigg in his evidence claimed
20 not to have been involved in the analysis of Q12 in
21 2000, the assumption previously having been that
22 Mr Sheppard, Thompson and Grigg had been involved in the
23 analysis of both Y7 and Q12 prior to the report having
24 been written by the former head of the training school
25 at Durham, Mr Peter Ablett who I understand, as with

1 Mr Thompson, is not being called to the Inquiry to give
2 evidence. If Mr Grigg said he wasn't involved in that,
3 I accept that, but I think the assumption was that all
4 three fingerprint practitioners at Durham had studied
5 both marks.

6 The Danes' acute failure to identify not once but a
7 second time having been shown my marked-up enlargement
8 sent to them by Mr Gilchrist -- this is in relation to
9 Q12 -- the apparent reluctance of the Danish officers to
10 recognise this Inquiry and appear before such is, to me,
11 most regrettable.

12 With regard to the Aberdeen report, which only came
13 to light or came to my notice during the Inquiry, the
14 report on Q12, the recipient and date of which are
15 unknown to myself, this report written by
16 Messrs McGregor, Dempster and Dingwall (formerly
17 Grampian Police employees and now SPSA employees) I view
18 as a further deliberate attempt on their part to
19 destabilise the Glasgow Bureau which follows on from an
20 earlier report by the same three individuals on Y7 in
21 2005 which was the first attempt at such.

22 Both reports -- and I use the words loosely -- have
23 never been accompanied by any specific evidence to back
24 up their findings and I consider such reports to be very
25 poorly constructed. I'm not sure if this is the format

1 of report writing reflected in the training received by
2 outside agencies such as Durham.

3 I remain utterly astonished that following a
4 personal invitation to myself from Procurator Fiscal
5 Mr William Gilchrist to examine Q12 and the fingerprints
6 of Marion Ross (deceased), someone in the Crown Office
7 chose to ignore my subsequent comprehensive illustrative
8 evidence of Q12 and Marion Ross's right forefinger print
9 submitted to Mr Gilchrist and decided not to progress
10 such to the Appeal Court. How that decision came about
11 requires explaining to this Inquiry.

12 In November 2006, I attended the National
13 Fingerprint Conference held at Hinckley, Leicestershire
14 organised by the ACPO Fingerprint Board for England and
15 Wales. This was the conference where Mr David Mulhern
16 Interim Chief Executive of the SPSA infamously made a
17 flying visit to give a short presentation on SPSA and,
18 in doing so, showed a PowerPoint slide headed, "Y7
19 mis-identification". No questions were allowed from the
20 audience and Mr Mulhern quickly departed.

21 At the end of the conference, I asked the conference
22 Chairman, Chief Constable Michael Baxter, to have the
23 Fingerprint Board address the subject of fingerprint
24 practitioners working within the police and
25 independently outwith across different jurisdictions

1 within the UK and abroad who make false claims of
2 mis-identification of fingerprints.

3 I would like you, Sir Anthony, to consider making
4 recommendations within your report on how such
5 individuals should be dealt with and how those outside
6 the police should be regulated internationally.

7 Confirmatory bias I would like to say is alive and
8 well in the fingerprint community but not in the
9 negative sense, unlike that being suggested at this
10 Inquiry. The Aberdeen trio of John McGregor, Gary
11 Dempster and John Dingwall sought materials from Pat
12 Wertheim knowing full well his previous claims.

13 The worst case I have witnessed outwith the Marion
14 Ross investigation is undoubtedly the Sutherland case
15 where we know there was a coming together of
16 Messrs Allan Bayle, John MacLeod and Gary Dempster --

17 MR MOYNIHAN: Sir, I did not know this was coming. We have
18 had passing mention of the Sutherland case but I am
19 conscious we have not gone into --

20 THE CHAIRMAN: We have not gone into any detail. I think
21 really we should not go into it. If you need a little
22 more time we will certainly give it to you but I think
23 we should take the short break now unless you are just
24 coming to a natural break.

25 A. I think that will do at the moment.

1 THE CHAIRMAN: No, no, we will come back in 10 minutes.

2 A. There was one other point. I know I've strayed off from

3 Q12 and forgive me for that but --

4 THE CHAIRMAN: No, if you have one other point to make let

5 us --

6 A. There is one other point and it's a point that's

7 personally annoyed me and it's Lord Boyd mentioned about

8 the adverse publicity this morning and it's actually

9 relative to part of that. I could give countless

10 examples but one of them I would like the Inquiry to

11 seek clarification from (inaudible) MSP Michael Russell

12 as to what he meant by SCRO produced bogus fingerprint

13 evidence. At no time -- and I stress at no time -- has

14 SCRO, whilst I was employed there, ever produced bogus

15 evidence. I consider Mr Russell's allegations to be the

16 most serious and I think I should end there.

17 THE CHAIRMAN: If we take a break now for ten minutes and

18 then I think Mr Moynihan will have questions to ask

19 after that.

20 **(2.55 pm)**

21 **(A short break)**

22 **(3.08 pm)**

23 MR MOYNIHAN: Mr Mackenzie, just before I ask you about Q12

24 I had stopped you for reasons I have explained to you,

25 simply because I don't want to go into Sutherland

1 myself. There were, however, some points or
2 observations you wanted to make on Lord Boyd's evidence
3 this morning, if I give you a chance to say what you
4 want to say about that.

5 A. Just one point, Sir Anthony, there was questioning this
6 morning of Lord Boyd about the checking of cases. I
7 think it was after Q12 had been questioned and the SCRO
8 cases were to be checked, et cetera. There was two
9 things here. There was the cases -- my understanding
10 was it wasn't just the four officers but it was my cases
11 and Alan Dunbar's cases, all six officers' cases for a
12 period of time, I think I am correct in saying it was
13 something like one year either side of the Marion Ross
14 case, roughly about a three year period from what I can
15 remember, and I think the question was what cases did
16 they check?

17 Well, basically staff were taken off, clerical staff
18 were taken off to go through every case file held in the
19 Bureau in that period and identify any cases where any
20 of the six names were signatories to and these cases
21 were all then re-examined and there were teams of people
22 brought in from outside both for that exercise and then
23 for a one-year period all current cases were verified
24 independently by an outside person who was actually
25 accommodated in Glasgow and worked out of the Bureau as

1 a final checker or an additional checker. So there was
2 two issues there.

3 So basically my understanding was that not only the
4 four officers' cases but any cases that Alan Dunbar and
5 I had been involved in were also checked and I think it
6 spanned about a three year period.

7 THE CHAIRMAN: Including a period before as well as after.

8 A. Before and after. That was a massive operation for
9 teams of clerical folk to actually extract all the cases
10 and there were staff from the RUC, as it was then, there
11 were staff from Scotland Yard and there was an officer
12 from Fife, from memory, involved in one or both of these
13 processes and I say for a full year after Lord Boyd
14 asked for all the cases to be looked at, all the new
15 cases from -- I think that was from something like
16 August 2000 onwards for about a year, off the top of my
17 head, were checked until eventually it was decided that
18 was sufficient checking. So just to clarify because
19 when heard that this morning --

20 THE CHAIRMAN: Thank you for doing that.

21 MR MOYNIHAN: Thank you, Mr Mackenzie.

22 Mr Mackenzie, if I bring up the image TC0211.01,
23 this is your image of Q12 that you break down into the
24 four rectangles as you proceed through the analysis and
25 I will proceed through that analysis in the same order

1 as you.

2 First of all, we have discussed in the past
3 difficulties of superimposition of other prints in this
4 area.

5 A. Okay.

6 Q. And the presence of swiping or smearing through parts of
7 the print.

8 A. Okay.

9 Q. Do you, however, as you progress round the clock from A
10 to D observe, moving from one area to the other and
11 within areas, ridge continuity?

12 A. Absolutely.

13 Q. If we start then in box A, which is for you TC0211.03?

14 A. Yes.

15 Q. This is an area that is in box A, it is the upper left
16 area of the print?

17 A. Yes.

18 Q. The reason I am asking you about ridge continuity is to
19 ask you to comment on the evidence of Mr MacPherson.

20 Do you recollect the evidence of Mr MacPherson?

21 A. Yes, I think he mentioned something in the top left-hand
22 corner.

23 Q. Do you recollect what his evidence was? Did you hear
24 it?

25 A. I remember him pointing to one or two characteristics in

1 that area.

2 Q. If I bring up for you his image, if we perhaps move
3 yours just to the left for a moment, FI0311.05, do you
4 see that he has an area of marking in the upper left
5 section?

6 A. Yes.

7 Q. He marked in the top of the image a bifurcation in
8 yellow?

9 A. The very top, yes.

10 Q. Then, moving across and coming down towards between sort
11 of 9 and 10 on a clockface, another sort of
12 golden-coloured, perhaps, bifurcation; do you see that?

13 A. Yes.

14 Q. Mr Smith pointed out to Mr MacPherson that on Q12 the
15 lower leg of the upper yellow bifurcation is on the same
16 ridge as the gold bifurcation?

17 A. Sorry, the lower leg of the gold ...?

18 Q. The lower leg of the yellow bifurcation, the lower
19 leg --

20 A. Okay.

21 Q. -- is on the same ridge as the gold bifurcation?

22 A. Okay.

23 Q. Yes?

24 A. Okay.

25 Q. But that is not the case on Q12.

1 A. It doesn't look like it, no.

2 Q. What Mr MacPherson said was indeed it doesn't look like
3 it. They seem to be somehow missing each other on the
4 ridges. The gold is lower relative to the yellow, if
5 they were on corresponding ridges?

6 A. The gold is certainly lower than the yellow, yes.

7 Q. What Mr MacPherson said is that the explanation is that
8 there has been disturbance within the area that's the
9 red shape between the yellow and gold.

10 A. Okay.

11 Q. Do you see that?

12 A. Yes, I can see some vertical black marks. I think
13 that's what he's got in green. Is that correct?

14 Q. Yes. The reason for my questions, if I just give you a
15 chance to study it, is that I cannot do a direct
16 comparison because the images are different but it would
17 seem that some of your points 1 to 7 fall, if not within
18 that red area then certainly in close proximity to it?

19 A. I'd say that -- are we talking about the red area,
20 surrounded by the red line?

21 Q. Yes, the red U-shape on Mr MacPherson's drawing.

22 A. In close proximity but I don't see any -- between my
23 arrows 4 and 6, I don't see any significant other than
24 there are black vertical lines there which I think I
25 explained before may have something to do with the steps

1 in the tram from my previous evidence. I'm nearly sure
2 that's the area we looked at in the colour photograph.

3 Q. In that case, if the area that's the black lines on your
4 print between the point 4 and point 6 are to be
5 understood as the steps of the tram and not ridge
6 structure, then there is something wrong with
7 Mr MacPherson's charting?

8 A. Mr MacPherson maybe wasn't aware or he may have seen my
9 explanation for it but maybe he's not aware. He may not
10 have seen the photograph other than what had been shown
11 here. So, I say, it's background information as far as
12 I'm concerned. It doesn't affect the ridge structure.

13 Q. If this is just simply the underlying picture of the
14 Victorian tram bus and not the disturbance in the
15 fingerprint, the underlying picture of the Victorian
16 tram bus can't explain why the bifurcations have jumped
17 in Q12.

18 A. Again, I haven't gone into that area where the yellow
19 bifurcations are but also out in that left-hand corner
20 there is other ridge detail and that could be the
21 periphery of it where -- well, certainly the area that I
22 didn't go into that area.

23 Q. Mr Mackenzie, what I am really looking at is you to draw
24 what you have drawn, points 1 to 7, and assuming ridge
25 continuity in this area and if there is ridge continuity

1 in this area there is something wrong with what
2 Mr MacPherson has observed?

3 A. The ridge continuity relative to what I've marked I'm
4 totally satisfied is correct.

5 As to what -- I haven't looked in any detail or
6 suggested marking anything like what Mr MacPherson has
7 marked there. That's basically his thoughts on it. So
8 my illustration of the ridge flow, I'm totally satisfied
9 with.

10 Q. What it really comes to -- I'm just putting this up for
11 comment, would you see a basis on which you can both be
12 correct?

13 A. As I say I can't say one way or another about what
14 Mr MacPherson may have marked on Q12 there because it's
15 basically the area immediately below that and up to the
16 top of the core, I'm satisfied with the ridge flow, so
17 Mr MacPherson may have made observations there and
18 marked what he thought using the markers on here. How
19 accurate that is, I don't know.

20 Q. The second point, if I take down the FI0311.05 and just
21 return this to your own charting.

22 We have asked a number of witnesses about a subject
23 that I refer to as demonstrability. What I mean by that
24 is that an expert -- and there's no question about
25 expertise -- it requires an expert to see the point and

1 then to demonstrate it to a lay person such as me or a
2 juror.

3 For fingerprint evidence it obviously needs a
4 trained eye to observe a feature. Do you accept that
5 you must nonetheless be able to point on the image to a
6 feature that's observable even by the lay eye?

7 A. Obviously you make every attempt to do it but I also
8 agree with examples that have been given of very poor
9 marks and having seen some of the illustrations that the
10 best you could do with particular photographs for the
11 lay person or the jury, et cetera, but the majority of
12 occasions the illustrations, you know, obviously you
13 would be attempting to make as good an illustration as
14 you could but obviously there's degrees of the quality
15 of -- well, each individual mark on its merit. So a
16 blanket answer is, yes, you are obviously wanting to do
17 the very best you can.

18 Q. What we have on the screen just now we have heard some
19 evidence of a process under ACE-V where one would
20 analyse the mark before ever one compared it with the
21 known print, in this case Marion Ross.

22 Would it be your evidence that each of the points
23 you have marked on this image are points that you would
24 identify as part of an initial analysis sufficiently
25 clearly before you looked at the corresponding Marion

1 Ross print?

2 A. I'm quite clear that certainly absolutely most of this,
3 the ridge structure, first of all, as we just discussed
4 a minute or two, I'm satisfied I can see the ridge
5 structure and the points that I've actually marked I'm
6 quite happy that I can't -- this going back to say
7 originally when you look at a mark you should take in as
8 much information. Those who go to the extreme and I
9 think there might have been other witnesses who said you
10 should memorise every characteristic within the mark,
11 that's just not feasible and I don't know about people's
12 brain power or could they actually imagine every mark,
13 sorry, every characteristic within a print and taking it
14 from the extremes to a palmar as somebody has said.

15 So you get your target area, my target area would be
16 something along the lines of maybe five or six
17 characteristics in a particular area of the print and
18 that may have been tied down to, well, obviously, what's
19 clearest in the mark but it might be in relation to
20 counting out so many ridges from a delta or from a core,
21 et cetera.

22 I also take on board -- and I think it might have
23 been Mr Stewart that actually said it -- that you do get
24 common characteristics of a type in a particular area
25 round a delta and sometimes in a core so could have to

1 be conscious, yes, there may be a number of people with
2 a similar feature of a small number of characteristics.
3 But you can only treat each mark by itself and to get
4 back to -- this reminds me again about people saying you
5 should maybe take notes or little drawings, et cetera.
6 I think that been explained, I think even by
7 Mr McGinnies that the practicalities are not -- in the
8 volume of marks you look at, the practicalities of
9 recording that for every mark at the ACE-V start is just
10 not a practicality.

11 But I do have first-hand experience of doing it and
12 it goes back to the days of pre computers where again
13 the Glasgow Bureau was probably -- always has been the
14 busiest the Scotland and when we had a murder
15 investigation to do and we'd actually to search actual
16 size photographs -- this is before we even had
17 comparator machines -- but were we actually to search
18 cold marks against a paper collection, the only time we
19 could actually do that in earnest was at a weekend
20 because Monday to Friday we had to basically process
21 prisoners' prints for court, et cetera. So the most
22 concentrated time for murder searches was at a weekend.

23 I can remember doing little drawings for my own
24 benefit of what I thought was the target area and
25 actually having a drawing sitting on a desk within eye

1 shot with actual special magnifiers actually magnifying
2 it so you could actually glance over at it and also
3 homing in on a particular area that you thought that
4 target was in. But, again, that wasn't set in tablets
5 of stone either because you could be at it for a number
6 of weeks and every time you went back to it you could
7 actually be reassessing actually what you saw and saying
8 have I actually got that right.

9 So it's nothing new for people to say we should
10 start doing little drawings of it. I've done it years
11 ago but we have moved on, moved to computers, et cetera.
12 So it is a skill that older experts have done. They
13 maybe haven't put it into notes as been suggested but
14 it's a skill that I know I have applied myself.

15 Q. The reason why I was asking you about whether these are
16 features that you would have observed in the ACE initial
17 analysis of the mark is the area you have circled in the
18 magenta -- everyone's favourite colour -- it seems just
19 to my eye, untrained eye, as simply to be shades of grey
20 in a sea of shades of grey with no feature there?

21 A. I can tell you how I worked with this because, as I say,
22 I hadn't been involved with this initially, this was one
23 only came to me when Mr Gilchrist gave me the
24 opportunity but when I looked at it, my very first look
25 at this and it was in Mr Gilchrist's presence that I

1 actually had a comparator machine, et cetera, and I do
2 remember my target area, which I have already described,
3 was the lake area to the bottom left of the core but,
4 just as other witnesses have said, you don't work with
5 somebody sitting on your shoulder and, basically, I
6 looked at this for the first time and that was my memory
7 of what my target area was but then Mr Gilchrist left me
8 to my own devices.

9 I then got various contrasts of actual sized
10 photographs done; I got enlargements made; but I also
11 got them done in colour reversals, which means the black
12 ridges become white because of the process with the
13 superglue it's possible that you get the ridges in the
14 wrong colour and you have to have the colour actually
15 reversed. It's not the negative that's reversed back to
16 front but it's the actual colour of the ridges.

17 So how I approached this particular comparison was I
18 had my large magnifying glasses, not just my linen
19 testers, and I was using everything that I had available
20 to me, comparator, magnifying glasses and enlargements
21 and when I had my magnifying glass on the
22 enlargements, which again is enlarging it further, I was
23 conscious of this, first of all, conscious of these
24 characteristics I've marked here but I was conscious of
25 this feature within that particular ridge. So I can

1 actually say I did actually see that.

2 Q. But the question I am asking you is where is it on this
3 image?

4 A. It's actually contained within that magenta circle.

5 It's actually like a bulge in the ridge and that's --

6 it's a large pore that's causing that.

7 Q. Is that because if you took me to a different image in
8 that area I would see something or are you telling me
9 that when I look at this screen just now, within the
10 magenta circle I must see something that you would then
11 interpret as an enlarged pore?

12 A. All I'm saying is that that is an area that caught my
13 eye. I'd looked at the characteristics that I've marked
14 and then again I was looking at the intervening ridges
15 and in doing so I then was conscious of that particular
16 feature within that.

17 THE CHAIRMAN: But as you look at that now, on that screen,
18 can you see this bulge?

19 A. I can actually see it, a curving of it, particularly
20 over to the left-hand side of the magenta circle, an
21 actual bulge to the left of the ridge and equally,
22 obviously, the size the ridges are now blown up to but I
23 can actually see the bulge in there.

24 But these are the things that I say I've never
25 articulated before it's more than we're conscious of all

1 these things now with Third Level Detail and that's the
2 kind of stuff that the brain -- I've never said that's
3 the target area. My target area was where the lake
4 was --

5 MR MOYNIHAN: I am not asking you about the target area.
6 I'm simply asking you whether, on this image, if you
7 were addressing me as a juror, whether you would be able
8 to say to me, "Mr Juror, you can see what I can see in
9 that magenta circle", because I'm doing what wouldn't
10 happen in court, I'm the juror saying to you, "I'm
11 sorry, Mr Mackenzie, I don't actually see anything
12 there", so what am I missing on this image?

13 A. Again, I'm just basically taking you through the process
14 that when I was continuing my comparison process that
15 I'm indicating to you that that is an area or a feature
16 within the ridges that I saw.

17 Whether you today can see that or not, you know, I
18 can't, you know, I can't make you see it but all I'm
19 indicating is that I was conscious of that using my
20 magnifying glass, a large magnifying glass, on the
21 enlargements and it was consistent with this bulge in
22 the ridge, otherwise I wouldn't have marked it.

23 Q. Let us then move to the next area which I have broadly
24 covering points 8 to 15. If we move to TC0211.04 and
25 also if we could bring up .05 as well, please.

1 It's just a slightly different way in which the
2 points have been numbered in these two different images
3 and I want to be clear. I'm looking at the area now in
4 the core.

5 A. Okay.

6 Q. The area that is the chilli pepper that you have
7 described. Number 4, image number 4, has it with the
8 number 11 to its left; is that correct?

9 A. Yes.

10 Q. It is just that image number 5 has it up to the right.
11 So number 11 is the chilli pepper?

12 A. Yes.

13 Q. Number 12, there is a -- you can see the area of
14 uncertainty about what's drawn in number 5, the number
15 12 is to the right of the ridge ending --

16 A. No, it's actually --

17 Q. -- and well away from the core?

18 A. The reason for the arrows was that I wasn't actually
19 wanting to interfere with describing the ridges. That's
20 how the Lynn was helpful in that I actually drew the
21 numbers but I didn't want to be covering up features and
22 that's why it's not done in the traditional way of the
23 line going straight to the point.

24 Q. In that case, Mr Mackenzie, again, it is image number 4
25 which is correct?

1 A. Yes. It's the bifurcation immediately to the right of
2 the chilli pepper.

3 Q. Therefore, the ridge ending is point number 13?

4 A. Correct.

5 Q. What interests me in relation to the feature in the core
6 is that what you have drawn is that the bifurcation at
7 number 12, in fact, comes down to a ridge ending which
8 is number 16?

9 A. Correct.

10 Q. Yes?

11 A. **(Nodded)**

12 Q. In fact, there has been description of the feature that
13 you have drawn in green in the centre there between 13
14 and 16 as having the shape of an islet?

15 A. Yes. I actually used that term -- I actually
16 Mr Zeelenberg had used the same term. Where I remember
17 this I mean, obviously, we have our independent ridges,
18 lakes, et cetera, but it was during my time on the
19 European Working Group with Interpol that I think it was
20 a German colleague on the group had a list of how in
21 Germany, and possibly some other countries, actually,
22 they had names for a number of features. So I think it
23 was going back to that and also seeing Mr Zeelenberg
24 mention it, the reality is it's a small lake but I think
25 for this term I think it was good to actually use it.

1 I'm not in the habit of using it. I think it was the
2 correct -- it's a good description of it as an islet.

3 Q. An islet, a small lake. Therefore, what that means is
4 since it's a lake to hold water the banks are complete
5 on either side?

6 A. Yes.

7 Q. That then enables me to compare Mr MacPherson and if I
8 take you to FI2910.14 -- if we keep the image on the
9 right-hand side, even though the numbers are wrong, keep
10 the image on the right-hand side and replace the one on
11 the left with FI2910.14 --

12 A. Sorry, the numbers aren't actually wrong. You are
13 talking about 12 is just a bit further out but it's
14 pointing over --

15 Q. No, it's okay. It's just it's easier for me now I
16 know what number 12 is because number 12 had confused
17 me. Give my just a second, please.

18 It may actually be that I can't see it. If we can
19 try FI2910.15, what I am going to do is enlarge an area.
20 I'm going to enlarge the charting of Q12.

21 Do you see what I have brought up, the central area,
22 the core, again marked by Mr MacPherson in green and
23 what he observes is the bifurcation that you have as
24 number 12.

25 A. Okay.

1 Q. On the left he draws, as you draw, the inner ridge of
2 the islet or lake coming down, by sheer coincidence, to
3 the same point, ridge ending number 16. If you just
4 take that from me that's it.

5 A. Yes.

6 Q. But on the right-hand side you will see brought up that
7 what he draws is a green line that stops and he does not
8 observe the completion of that which I had marked in in
9 red.

10 A. Okay.

11 Q. You would differ from him in relation to that?

12 A. Yes, on Q12 I see it as a continuation.

13 Q. The second point in relation to this on which the two of
14 you appear to differ and, therefore, I would ask you to
15 comment is the point that you have marked as 13 -- that
16 the ridge ending -- you have marked number 13 as the
17 ridge ending above the bifurcation number 12?

18 A. Okay.

19 Q. Whereas what Mr MacPherson observes in that area is to
20 the right of the bifurcation that you have as number 12,
21 he observes a bifurcation in the ridge structure below
22 and the point about this is that what you observe, as I
23 understand it, is -- and this is this question of the
24 two legs one thinner, one thicker -- you observe that
25 the thinner of the two lines, the inner one, goes up,

1 does not, in fact, touch --

2 A. Sorry, could I stop you there? It's the thinner of the
3 two in Marion Ross's as opposed to this being Q12.

4 Q. Yes.

5 A. I know that actually you are describing it, it's the one
6 that's been described later it's thinner.

7 Q. What you observe, let us call it the inner of the two
8 ridges then. You observe the inner of the two ridges,
9 in fact, carrying on up, in effect, parallel to the
10 outer one, not coming into contact and ending at a ridge
11 ending, yes?

12 A. I think I explained that in the previous evidence. I
13 saw it slightly curving and it goes fainter and I think
14 I marked it the previous time I appeared. I've actually
15 covered that point.

16 Q. What Mr MacPherson says is occurring is that that inner
17 leg in fact comes in and makes contact with the outer
18 leg to form a bifurcation and he says in Marion Ross the
19 point that you have as the continuation to the ridge
20 ending is, if anything, an incipient ridge absent on
21 Q12.

22 A. Okay.

23 Q. Do you simply disagree with Mr MacPherson?

24 A. No, I don't disagree. That's his interpretation. I
25 said it thinned off and I marked the end of it and I was

1 quite happy it was curving there. Also to the right of
2 it where he's marked it as a bifurcation there is a
3 slight bulge in the right-hand leg there at that point,
4 but I don't think it's anything to get hung up on. It's
5 much like other points that's come out during the
6 Inquiry. There is a feature there and Mr MacPherson,
7 his interpretation is that that's a bifurcation. I
8 differ slightly in it goes a wee bit further up and ends
9 but I don't see it as any major point of disagreement.

10 Q. What I am wondering about -- and again I appreciate we
11 are not in your target area -- if I look and I have now
12 brought up, from FI2910.15, I have brought up the Marion
13 Ross print, if I study the Marion Ross print what I can,
14 in fact, see is what I have been describing to you, that
15 the inner ridge is thinner?

16 A. Yes.

17 Q. It does seem, on this at least, that there is something
18 to be said for the proposition that on this there is a
19 continuation of that thinner ridge either side of the
20 uppermost red line, that must be the ridge that you see
21 continuing and you mark as the ridge ending, that
22 Mr MacPherson construes as, at most, an incipient ridge,
23 yes?

24 A. Two points to make: I wouldn't fall out with
25 Mr MacPherson about that interpretation. I could

1 probably have given that interpretation to it as well
2 but also I've also explained today about the thick and
3 thin ridges and it's the right-hand leg of that that's
4 where the ridges start to thicken out.

5 Q. Mr Mackenzie, if I can stop you. While you may be able
6 to debate with Mr MacPherson the interpretation of
7 Marion Ross as to whether that point is an incipient or
8 the continuation of the thinner leg, if I go back to
9 what is marked on Q12, what I understand Mr MacPherson
10 to say is that the point, the ridge ending that you have
11 marked, is not evident on Q12.

12 A. Is he not saying that's the end of a wee incipient
13 ridge?

14 Q. He says he doesn't see it.

15 A. He doesn't see it. Well, I marked it where I saw it.
16 Like I say there is, at the point where he's made the
17 bifurcation, there is a thickening of the ridge so it's
18 either interpretation, it could be a bifurcation and a
19 small incipient ridge and on Q12 where I've marked it
20 would be the top of that incipient ridge because I've
21 explained it already. It is curving slightly to the
22 left and then it thins out much in the same manner as
23 I've said other of the ridges of Marion Ross have
24 thinned out. They go from thick to thin. So it's a
25 fine line as to, is that a continuation of the full

1 ridge or is it becoming an incipient ridge? And there's
2 other illustrations I've already covered with the same
3 point -- same issues, should I say, not the same point.

4 THE CHAIRMAN: There must be numerous prints of Marion Ross
5 from the house that she lived in or would have been so
6 one would have seen whether she actually had one ridge
7 thinner than the other in the bifurcation.

8 A. Well, I presume --

9 THE CHAIRMAN: No, I am just wondering --

10 A. I presume among that there would probably be other of
11 her right forefinger but I wasn't involved in any of
12 these comparisons.

13 THE CHAIRMAN: No, I'm not suggesting you should have done
14 it. I'm just --

15 A. If somebody was to go back through, they might --

16 THE CHAIRMAN: I am questioning how one could resolve
17 whether this was a peculiarity in this print or whether
18 it was a peculiarity in her fingerprints generally,
19 that's all, but I think that would be a laborious task.

20 A. Yes. I think the answer to it is, though, the pressure
21 because definitely you can see from the left-hand side
22 over to the right-hand side of the core it's quite
23 consistent and then from that right-hand leg, if you
24 want, then probably out for about a dozen ridges they do
25 get thicker so I think it's quite a feasible explanation

1 when the tape was applied to the finger there was a bit
2 more pressure on that particular side and that's what
3 caused that area to be thicker than the ones immediately
4 to the left.

5 MR MOYNIHAN: On 29th October Mr MacPherson was asked about
6 this (in the LiveNote it is page 76) and it is not a
7 question whether the thickness of the ridges -- he was
8 asked about this point and what he said was:

9 "What I believe you have is an incipient ridge like
10 so to the left-hand side of the bifurcation.

11 Unfortunately, as we've previously discussed on many
12 days, sometimes one feature like an incipient ridge will
13 show in one point but not show in the mark and I believe
14 the incipient would be in the region **(indicated)** but it
15 doesn't show."

16 I asked:

17 "I am grateful to you. So you do not see whether
18 it's an incipient or a continuation of the left ridge as
19 joining the bifurcation, you simply do not see the ridge
20 structure in that location.

21 "A. No."

22 So there is a difference between the two of you.

23 What he is saying is whether it's viewed as a
24 continuation of the thinner ridge in Marion Ross or an
25 incipient, it's just not on Q12?

1 A. All I know is where I've marked that is the ridge has
2 thinned out at that stage and where I've marked the end
3 of it I'm quite satisfied.

4 Now I agree with what he said about -- and I've said
5 it in my evidence before -- that incipients sometimes
6 show and sometimes don't under the different pressures
7 so at that point, as I've already mentioned, there's
8 more pressure obviously from the right-hand leg
9 outwards. So it is feasible that the -- well, it's not
10 feasible, it is thinner where the tail end of that is
11 and that is the traces of the incipient ridge if you
12 describe that as an incipient ridge. I think it's the
13 end of the ridge following up and thinning off, just as
14 some of the other ridges that came from the left over
15 the top have thinned off.

16 Q. If we can move then to the next area which covers, as
17 you say, because of the overlap 11 to 24 TC0211.05, your
18 points 20 and 21. This is the bifurcation with a spur.

19 A. Yes.

20 Q. Number 21 and is number 20 a ridge ending or is number
21 20 intended to be a bifurcation?

22 A. 20 is a bifurcation, 21 is a ridge ending.

23 Q. So 20 is the bifurcation, number 21 is the spur or the
24 ridge ending?

25 A. Yes.

1 Q. These correspond to 5 and 6 in SCRO Q12?

2 THE CHAIRMAN: Yes, that's what was said.

3 A. Yes.

4 MR MOYNIHAN: On this occasion, what you have drawn is the

5 bifurcation is to the left of a rather large area of

6 black. Is that correct?

7 A. It's to the left of another vertical ridge which is --

8 21 is actually drawn over that ridge and follows up.

9 Q. I'm sorry, Mr Mackenzie, what I am drawing now with the
10 cursor is an area of black on the image?

11 A. There's a darker area than there is there.

12 Q. So you've got the bifurcation to the left of that area
13 of black or darker area, yes?

14 A. Yes.

15 Q. With the ridge ascending from the bifurcation being, in
16 a sense, parallel to the outer ridge of that darker
17 area, yes?

18 A. Yes.

19 Q. If we can look then at Mr MacPherson FI29 -- we will
20 keep that up -- FI2910.24 and I will highlight what he
21 has drawn. He has drawn the bifurcation within the
22 black area with the ascending ridge going diagonally
23 from the bottom left to the top right through the black
24 area?

25 A. I think we've marked them in the same position.

1 Q. You steer clear of the dark area when he has gone into
2 the dark area.

3 A. I think it's just a matter of where he's drawn a line
4 with the mouse. The feature he has marked is exactly
5 the same. As to the tail of it, I think it's -- that's
6 just the way he's marked it. I'm quite happy we've
7 marked the same thing completely.

8 Q. The tail is indicating where the ridge is coming from
9 that forms the bifurcation and do you not see that you
10 seem to have been able to see, you and Mr MacPherson,
11 different ridge structures hence you are drawing
12 different tails?

13 A. I think it's just the control of the mouse, to be quite
14 honest.

15 Q. You mentioned in your evidence Mr Zeelenberg and you
16 mentioned slide 124. I mentioned to you at least on my
17 copy of Mr Zeelenberg slide 124 relates to Y7.

18 What Mr Zeelenberg has, dealing with SCRO point 5
19 and 6, if I bring up just on the right-hand side,
20 please, AZ0061, slide 159 to begin with -- in fact, we
21 may have to look at the PowerPoint to see what
22 Mr Zeelenberg is looking at. The point you have
23 mentioned in relation to slide 124 was what?

24 A. I think it's certainly something with that bottom
25 left-hand corner. Whether that's the same slide I was

1 talking about but basically it was suggesting a
2 different flow of the ridges because I think what it's
3 suggesting is with the green dots in the centre
4 suggesting that that's one ridge flowing through there
5 in between the two rows of yellow dots; whereas my
6 point 23 is a ridge ending there and then the spur
7 basically hooks out to the left just above point 23.

8 Q. If I bring up perhaps the PowerPoint so we can see, we
9 will bring it up in its PowerPoint form, I don't know
10 what slide 124 was on the draft that we may have been
11 using but it could be either slides 159 or 160 in the
12 original -- sorry, in the final version. I will take
13 over.

14 First of all, do we see that Mr Zeelenberg has
15 marked the SCRO points 5 and 6 in the upper left-hand
16 again adjacent to the area that I call black?

17 A. Okay.

18 Q. What he is going to do -- and has he correctly marked in
19 Marion Ross the bifurcation and spur?

20 A. As marked by SCRO, yes.

21 Q. What about as marked by you as your points 20 and 21?

22 A. Yes, that's the bifurcation within the spur and the one
23 below it is 21, is it? Yes, 20 and 21.

24 Q. So he is looking at the correct area?

25 A. Yes.

1 Q. He is looking at it as the numbers given by SCRO 5 and 6
2 and then we see what he is suggesting.

3 A. Yes, he's suggesting that it's more or less ... I'm not
4 quite sure what the red lines are meant to indicate.

5 Q. He's suggesting, I think, there's a problem of the
6 alignment of the points.

7 A. Again, it gets back to a chance impression against a
8 controlled print. So you're never going to get that red
9 line sitting over the other red line, for example.

10 Q. Then you can begin to see the ridge structure when it
11 comes to point 9, which is presumably your point 23?

12 A. Yes.

13 Q. If I understand it correctly, what he is having a
14 difficulty seeing is that there is a bifurcation with a
15 spur in the area of Q12. What he sees are three ridges
16 coming in from the left to the points that you mark as
17 20 and 21 with perhaps a kink but nothing specific as
18 far as he can see in relation to what you have as 23 and
19 SCRO have as 9?

20 A. I think that describes what I was -- basically it's
21 inferring that basically there's three parallel ridges
22 there, as you say, with a little kink in between. It's
23 a misrepresentation of actually how it is.

24 Q. He sees no ending ridge in that area, no difference in
25 the ridge count is what he is suggesting --

1 A. The left-hand leg of the spur coming down from point 21
2 curves over in the direction, the flow of the upcoming
3 point 23 but it then curves back down quite distinctly;
4 whereas when he puts these coloured dots on, this may
5 suggest it's straight and actually if you take them off
6 you can actually see it curving back down the spur, the
7 left-hand leg and then going on to the leg below, my
8 point 23.

9 Q. What I am suggesting we take from this is that
10 Mr Zeelenberg is suggesting that to the left of the dark
11 area ridge flow is to be seen but he is unable to carry
12 it through the dark area, which is why I was asking you
13 about you taking the ridge that forms the bifurcation
14 and putting it directly up and parallel to the outside
15 of the dark area and Mr MacPherson, by contrast, taking
16 it across and into the dark area.

17 A. I think it's Mr MacPherson's control of the mouse
18 because they are very sensitive because within some of
19 my own, I've actually got them curving or whatever.
20 It's just getting that control in the mouse. I don't
21 think it's anything other than that.

22 Q. Perhaps the last one for today is the target area, the
23 lake.

24 A. The lake.

25 Q. If you have before you, please, your image which is

1 TC0211.06.

2 A. Okay.

3 Q. The fact that this is a lake is central to your whole
4 analysis. This was the target group, yes? It forms the
5 basis of the tracings that you do as your Level 3
6 detail, yes?

7 A. **(Nodded).**

8 Q. It is therefore central to your analysis?

9 A. Absolutely, particularly the inner edges of the ridges
10 that form the lake that's so strong, the shapes,
11 et cetera.

12 Q. If we put that to the side then and bring up
13 Mr MacPherson, FI2910.03 ... there seems to be something
14 wrong with the numbering. I will try again.

15 What I have done is brought up a slide
16 FI0166A.001-GS06. Do you see what Mr MacPherson has
17 marked on the image?

18 A. Yes.

19 Q. What he has marked is a bifurcation at the point that
20 you would have as number 29?

21 A. Okay.

22 Q. And at the area where you have 27 (for him it's 11), he
23 has an open area and indeed we can see on his image that
24 there is no enclosure point at that lower end at your
25 number 27, his 11, on this image that I have on the

1 right-hand side?

2 A. I disagree. I can see the actual grey scale basically
3 changing there and the enclosure because that whole
4 inner area of the ridge detail, particularly if you look
5 at the white part within the ridges, the shape of that
6 continues right around and it's common on Marion Ross's.

7 That was part of, I say, what I was taking in in the
8 Third Level Detail. So it actually does curve up there.

9 Do you want me to put the cursor on?

10 Q. Okay. So where are you seeing the feature?

11 A. In here (**indicated**). I see that curving up here. I'm
12 quite satisfied that this forms a lake and then comes up
13 here at this point.

14 THE CHAIRMAN: What is the end of the lake, as it were,
15 where Mr MacPherson has it open? Where do you say the
16 end lies?

17 A. I see this actually curving back up here and this
18 joining up to it and then curving up to this point.

19 THE CHAIRMAN: So it's a very faint line on that production?

20 A. Yes.

21 MR MOYNIHAN: If we perhaps just finish on this because
22 where Mr MacPherson in fact, as I understand it, joins
23 with Mr Zeelenberg is that there are straight lines
24 running in this vicinity. Do you see where my pointer
25 is just now?

1 A. Okay.

2 Q. The suggestion is that those straight lines are
3 indicative of movement in this area and what you are
4 therefore seeing is not the enclosure of the lake but
5 rather lines of movement?

6 A. There is very minor pressure in the centre of the core
7 there but it doesn't take away from the features. There
8 is that bit of pressure, as I have said already, in the
9 core area, the particularly the bony area, but it hasn't
10 changed the ridge flow in any manner other than it's a
11 very slight crushing in that centre part of the core.

12 Q. Because if we bring up -- and keep in mind these two
13 different interpretations -- and finish today by
14 bringing up Mr Zeelenberg's PowerPoint presentation
15 again, on this occasion slide 162. He is looking the
16 area that you would term the lake. For SCRO it's
17 point 12, at the top 11 at the bottom. He is going to
18 deal with point 11, a point at the bottom, and he has
19 marked it -- do you see -- on Q12 as having something
20 perhaps in the appearance of a lake, maybe even there
21 open-ended, but in relation to Marion Ross, he, like
22 Mr MacPherson, sees the right-hand most side as open
23 with magenta dots running up and down to mark an area of
24 disturbance?

25 A. I see a vertical line just to the right of where it's

1 joined actually. I'm quite satisfied, as I said, with
2 the colour changes but the vertical lines that you're
3 talking about are immediately to the right of where I
4 see it joining.

5 Q. So it would seem, therefore, on this occasion that your
6 interpretation differs firstly from Mr Zeelenberg?

7 A. Marginally, yes.

8 Q. If Mr MacPherson's position is that the feature that
9 closes off the lake in Marion Ross is a piece of
10 incipient that is absent in QI2, your view would differ
11 from his as well?

12 A. I don't think it's an incipient ridge in Marion Ross's
13 print. If you actually look at my TC0211.10 there's no
14 way that's an incipient ridge. It's quite all one piece
15 of structure.

16 Q. If his evidence had been on 29th October at page 56 that
17 on Marion Ross there is a slight incipient that gives
18 the appearance of closing off the lake but on QI2 that
19 feature is absent, you would differ from Mr MacPherson?

20 A. Absolutely.

21 MR MOYNIHAN: Sir, that would be an appropriate moment.

22 THE CHAIRMAN: I think we should stop now. We have had a
23 long day. We will sit at 9.30 again tomorrow morning,
24 please.

25 **(4.10 pm)**

1 (Adjourned until 9.30 am the following morning)

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